

Supplementary Table 1. List of curated cancer genes

Cancer Gene List

ABCB1
ABCB11
ABCC2
ABCC4
ABL1
ABL2
ACO1
ACVR1B
ACVR2A
ACVR2B
ADNP
AJUBA
AKT1
AKT2
AKT3
ALK
ALKBH6
ALOX12B
ALPK2
AMER1
APC
APCDD1
APITD1
APOL2
AR
ARAF
ARFRP1
ARHGAP35
ARID1A
ARID1B
ARID2
ARID5B
ARL11
ASXL1
ASXL2
ASXL3
ATM
ATP5B
ATR

ATRIP
ATRX
AURKA
AURKB
AXIN1
AXIN2
AXL
AZGP1
B2M
B4GALT3
BACH1
BAK1
BAP1
BARD1
BCL2
BCL2L11
BCL2L2
BCL6
BCLAF1
BCOR
BCORL1
BCR
BLM
BMPR1A
BRAF
BRCA1
BRCA2
BRE
BRIP1
BRWD3
BTG1
BTK
BUB1B
C11orf30
CAP2
CARD11
CASP8
CBFB
CBL
CBLB
CBLC

CCND1
CCND2
CCND3
CCNE1
CD1D
CD70
CD79A
CD79B
CDC27
CDC73
CDH1
CDH12
CDH18
CDK12
CDK4
CDK6
CDK8
CDKN1A
CDKN1B
CDKN2A
CDKN2B
CDKN2C
CEBPA
CENPL
CEP76
CERS2
CHD4
CHD8
CHEK1
CHEK2
CHUK
CIC
CNBD1
CNKSR1
COL7A1
COMT
CRBN
CREBBP
CRIPAK
CRKL
CRLF2

CSF1R
CTCF
CTNNA1
CTNNB1
CUL4A
CUL4B
CUX1
CYLD
CYP17A1
CYP1B1
CYP2C19
CYP2C8
CYP2D6
CYP3A4
CYP3A5
DAXX
DCAF6
DDB2
DDR1
DDR2
DDX11
DDX3X
DDX5
DIAPH1
DICER1
DIDO1
DIS3
DIS3L2
DKC1
DLC1
DNER
DNMT1
DNMT3A
DOCK8
DOT1L
DPYD
ECSCR
EGFR
EGR3
EIF2S2
EIF3A

EIF4A2
ELANE
ELF3
EME1
EME2
EML4
EP300
EPHA2
EPHA3
EPHA5
EPHB1
EPHB2
EPHB6
EPPK1
ERBB2
ERBB3
ERBB4
ERCC1
ERCC2
ERCC3
ERCC4
ERCC5
ERG
ESR1
ESR2
ETV1
ETV4
ETV5
ETV6
EWSR1
EXO1
EXT1
EXT2
EZH1
EZH2
EZR
FAH
FAM129B
FAM46C
FANCA
FANCB

FANCC
FANCD2
FANCE
FANCF
FANCG
FANCI
FANCL
FANCM
FAS
FAT1
FAT3
FBXW7
FCGR1A
FCGR2A
FCGR3A
FGF10
FGF12
FGF14
FGF19
FGF23
FGF3
FGF4
FGF6
FGF7
FGFBP1
FGFR1
FGFR2
FGFR3
FGFR4
FH
FLCN
FLT1
FLT3
FLT4
FOXA1
FOXA2
FOXL2
FOXQ1
FUBP1
FZD1
GAB2

GATA1
GATA2
GATA3
GBA
GID4
GJB2
GNA11
GNA13
GNAQ
GNAS
GNB1
GPC3
GPR124
GPS2
GRIN2A
GRM3
GSK3B
GSTP1
GUCY1A2
H3F3A
H3F3C
HAUS3
HDAC4
HES1
HFE
HGF
HIF1A
HIST1H1C
HIST1H1E
HIST1H2BD
HIST1H3B
HIST1H4E
HLA-A
HLA-B
HLA-G
HMBS
HNF1A
HRAS
HSP90AB1
IDH1
IDH2

IGF1
IGF1R
IGF2
IKBKE
IKZF1
IL7R
ING1
INHA
INHBA
INPPL1
IPO7
IRF4
IRS2
ITGAV
ITK
ITPA
JAK1
JAK2
JAK3
JUN
KAT6A
KDM5A
KDM5C
KDM6A
KDR
KEAP1
KIF5B
KIT
KLF4
KLHL6
KMT2A
KMT2B
KMT2C
KMT2D
KRAS
LIFR
LMO1
LRP1B
LRP2
LRRK2
MALAT1

MAN1B1
MAP2K1
MAP2K2
MAP2K4
MAP3K1
MAP3K13
MAP3K15
MAP4K1
MAP4K3
MAPK1
MAPK8IP1
MAX
MBD1
MC1R
MCL1
MDM2
MDM4
MECOM
MED12
MED23
MEF2A
MEF2B
MEN1
MET
MGA
MIR142
MITF
MLH1
MNDA
MORC4
MPL
MRE11A
MSH2
MSH6
MTAP
MTHFR
MTOR
MUTYH
MXRA5
MYB
MYC

MYCL
MYCN
MYD88
MYLK
NAV3
NBN
NBPF1
NCOR1
NEIL1
NF1
NF2
NFE2L2
NFKBIA
NKX2-1
NOTCH1
NOTCH2
NOTCH3
NOTCH4
NPM1
NQO1
NRAS
NRP2
NSD1
NTN4
NTRK1
NTRK2
NTRK3
NUP93
ODAM
OTUD7A
PAK3
PAK7
PALB2
PAPD5
PARP1
PARP2
PARP3
PARP4
PAX5
PBRM1
PCBP1

PCDH10
PDAP1
PDCD2L
PDGFRA
PDGFRB
PDK1
PDSS2
PHF6
PHOX2B
PIK3C2G
PIK3C3
PIK3CA
PIK3CG
PIK3R1
PIK3R2
PLCG2
PML
PMS2
PMS2CL
PNRC1
POLD1
POLE
POLH
POLI
POLK
POLQ
PORCN
POU2AF1
POU2F2
PPM1D
PPP2R1A
PPP6C
PRDM1
PRKAR1A
PRKDC
PRLR
PRPF40B
PRSS1
PRSS8
PTCH1
PTEN

PTPN11
PTPRC
PTPRD
QKI
RAB40A
RAC1
RAD21
RAD50
RAD51
RAD51B
RAD51C
RAD51D
RAD52
RAD54L
RAF1
RALY
RARA
RASA1
RB1
RBM10
RBMX
RECQL4
REL
RET
REV3L
RHBDF2
RHEB
RHOA
RICTOR
RIT1
RMI1
RMI2
RMRP
RNF43
ROS1
RPA1
RPA2
RPA4
RPL22
RPL5
RPS14

RPS15
RPS2
RPTOR
RUNX1
RUNX1T1
RUNX3
RXRA
SBDS
SDHA
SDHAF2
SDHB
SDHC
SDHD
SERPINA1
SERPINB13
SETBP1
SETD2
SETDB1
SF1
SF3B1
SGK1
SH2B3
SH2D1A
SIN3A
SIRPA
SIRT4
SLC19A1
SLC22A2
SLC25A13
SLCO1B3
SLX4
SMAD2
SMAD3
SMAD4
SMARCA4
SMARCB1
SMARCD1
SMARCE1
SMC1A
SMC3
SMO

SNX25
SOCS1
SOD2
SOS1
SOX10
SOX17
SOX2
SOX9
SPEN
SPOP
SPRY4
SRC
SRSF2
SRY
STAG2
STAT3
STAT4
STK11
STK19
STK38
STX2
SUFU
SULT1A1
SUZ12
SYK
SZRD1
TAF1
TBC1D12
TBL1XR1
TBX3
TCEB1
TCF7L2
TELO2
TERT
TET2
TFG
TGFB1
TGFB2
TIMM17A
TIPARP
TLK2

TLR4
TMEM127
TMPRSS2
TNF
TNFAIP3
TNFRSF14
TOP1
TOP3A
TOP3B
TP53
TP53BP1
TPMT
TPX2
TRAF3
TRAF7
TRIM37
TRRAP
TSC1
TSC2
TSHR
TSHZ2
TSHZ3
TYMS
TYR
U2AF1
U2AF2
UGT1A1
UMPS
UROD
USP1
USP9X
VANGL2
VEZF1
VHL
WAC
WAS
WASF3
WDR48
WISP3
WNK1
WRN

WT1
XPA
XPC
XPO1
XRCC2
XRCC3
ZFHX3
ZNF217
ZNF703
ZRANB3
ZRSR2

Supplementary Table 2. Gene, pair, and cluster counts at varying proximity pair significance levels and by cancer gene category.

	Pair Proximity P-Value	All Genes			Cancer Genes		
		Genes (drugs)	Pairs	Clusters	Genes (Drugs)	Pairs	Clusters
Intra-Molecular	No Cutoff	3060	47888	5865	280	10492	632
	0.05	2519	14991	5822	244	3271	698
	0.01	1021	1890	1592	125	388	277
Inter-Molecular	No Cutoff	986	5037	655	149	1818	172
	0.05	732	1495	488	127	535	156
	0.01	253	183	154	47	61	52
Drug-Mutation	No Cutoff	499 (175)	5766	533	60 (36)	1399	64
	0.05	359 (153)	2057	394	49 (34)	506	55
	0.01	105 (44)	297	108	16 (10)	67	16

Supplementary Table 3. Intra-molecular clusters with annotations

Cluster ID	Gene	Transcript (Ensembl74)	HGVS Protein Annotation	HGVS Coding Position	Closeness Centrality	Geodesic from Centroid	No. of Patient Samples
0	PRKCB	ENST00000303531	p.P505T	c.1513	0.164407126	4.49	1
0	PRKCB	ENST00000303531	p.A509V	c.1526	0.091650685	6.905	1
0	PRKCB	ENST00000303531	p.D523N	c.1567	0.054376828	9.68	1
0	PRKCB	ENST00000303531	p.A539T	c.1615	0.102076566	8.131	1
0	PRKCB	ENST00000303531	p.P540S	c.1618	1.114376516	0	1
0	PRKCB	ENST00000303531	p.P540H	c.1619	1.114376516	0	1
0	PRKCB	ENST00000303531	p.S552F	c.1655	0.107943184	9.145	1
0	PRKCB	ENST00000303531	p.L575P	c.1724	0.22202754	4.185	1
1	KCNK1	ENST00000366621	p.V139I	c.415	0.010293334	0	1
1	KCNK1	ENST00000366621	p.F216L	c.646	0.004578212	7.771	1
1	KCNK1	ENST00000366621	p.I226V	c.676	0.010180647	7.451	1
2	PEPD	ENST00000244137	p.A74V	c.221	1.058233777	0	2
2	PEPD	ENST00000244137	p.A122V	c.365	0.116467554	4.102	1
3	C8B	ENST00000371237	p.R539W	c.1615	1.090388832	0	1
3	C8B	ENST00000371237	p.R539Q	c.1616	1.090388832	0	1
3	C8B	ENST00000371237	p.P573L	c.1718	0.011438169	7.45	1
3	C8B	ENST00000371237	p.R284Q	c.851	1.030878067	6.741	2
3	C8B	ENST00000371237	p.H287R	c.860	0.131944215	3.922	1
4	DDB1	ENST00000301764	p.G832S	c.2494	0.088818253	3.493	1
4	DDB1	ENST00000301764	p.V870A	c.2609	0.088818253	0	1
5	ITGB3	ENST00000559488	p.E338K	c.1012	0.07307506	6.247	1
5	ITGB3	ENST00000559488	p.D362Y	c.1084	0.479073898	1.737	1
5	ITGB3	ENST00000559488	p.S363T	c.1087	0.555731398	1.324	1
5	ITGB3	ENST00000559488	p.N365S	c.1094	0.087053218	4.287	1
5	ITGB3	ENST00000559488	p.S156I	c.467	0.763810449	0	1
6	XDH	ENST00000379416	p.T662I	c.1985	0.171464623	7.177	1
6	XDH	ENST00000379416	p.P1216S	c.3646	1.006910472	0	2
7	ATRX	ENST00000373344	p.C220W	c.660	0.239483805	2.062	1
7	ATRX	ENST00000373344	p.Y266N	c.796	0.239483805	0	1
8	BMP2	ENST00000374580	p.E386G	c.1157	0.168992776	0	1
8	BMP2	ENST00000374580	p.V453L	c.1357	0.024213718	6.669	1
8	BMP2	ENST00000374580	p.E489D	c.1467	0.010544463	6.769	1
8	BMP2	ENST00000374580	p.R491W	c.1471	0.156518946	2.737	1
9	CUBN	ENST00000377833	p.E975K	c.2923	1.010807792	9.188	1
9	CUBN	ENST00000377833	p.E975Q	c.2923	1.010807792	9.188	1
9	CUBN	ENST00000377833	p.P1010L	c.3029	0.072171818	6.423	1
9	CUBN	ENST00000377833	p.S1012F	c.3035	0.428702433	2.423	1
9	CUBN	ENST00000377833	p.T1014K	c.3041	0.078898707	7.8	1
9	CUBN	ENST00000377833	p.R1077L	c.3230	0.10286569	6.399	1
9	CUBN	ENST00000377833	p.E1115K	c.3343	1.223845913	0	2
9	CUBN	ENST00000377833	p.P1182R	c.3545	0.04730422	7.391	1
10	UXS1	ENST00000283148	p.R95I	c.284	0.005727019	7.448	1
10	UXS1	ENST00000283148	p.R201H	c.602	0.058304156	0	1
10	UXS1	ENST00000283148	p.V256M	c.766	0.020263118	5.625	1
10	UXS1	ENST00000283148	p.L317I	c.949	0.022971677	5.444	1
10	UXS1	ENST00000283148	p.V322I	c.964	0.014786785	6.742	1
11	TP53	ENST00000269305	p.Q104H	c.312	5.400866919	9.939	1

11	TP53	ENST00000269305	p.G105C	c.313	12.83362803	7.757	2
11	TP53	ENST00000269305	p.G105R	c.313	12.83362803	7.757	2
11	TP53	ENST00000269305	p.G105S	c.313	12.83362803	7.757	1
11	TP53	ENST00000269305	p.G105D	c.314	12.83362803	7.757	1
11	TP53	ENST00000269305	p.S106R	c.318	13.98003045	8.258	1
11	TP53	ENST00000269305	p.Y107D	c.319	12.60192522	8.855	2
11	TP53	ENST00000269305	p.Y107C	c.320	12.60192522	8.855	1
11	TP53	ENST00000269305	p.L111M	c.331	7.555025923	8.656	1
11	TP53	ENST00000269305	p.L111P	c.332	7.555025923	8.656	1
11	TP53	ENST00000269305	p.L111Q	c.332	7.555025923	8.656	1
11	TP53	ENST00000269305	p.L111R	c.332	7.555025923	8.656	1
11	TP53	ENST00000269305	p.F113V	c.337	7.767972993	8.585	1
11	TP53	ENST00000269305	p.F113C	c.338	7.767972993	8.585	2
11	TP53	ENST00000269305	p.F113L	c.339	7.767972993	8.585	1
11	TP53	ENST00000269305	p.F113in_frame_del	c.341_339	7.767972993	8.585	1
11	TP53	ENST00000269305	p.FLH113in_frame_del	c.344_336	7.767972993	8.585	1
11	TP53	ENST00000269305	p.K120E	c.358	7.595218439	8.898	1
11	TP53	ENST00000269305	p.C124G	c.370	3.95442853	5.844	1
11	TP53	ENST00000269305	p.T125P	c.373	13.98846025	6.475	2
11	TP53	ENST00000269305	p.T125M	c.374	13.98846025	6.475	2
11	TP53	ENST00000269305	p.Y126D	c.376	13.42486793	8.443	1
11	TP53	ENST00000269305	p.Y126N	c.376	13.42486793	8.443	1
11	TP53	ENST00000269305	p.Y126C	c.377	13.42486793	8.443	2
11	TP53	ENST00000269305	p.Y126S	c.377	13.42486793	8.443	1
11	TP53	ENST00000269305	p.S127P	c.379	19.57954726	9.053	2
11	TP53	ENST00000269305	p.S127C	c.380	19.57954726	9.053	1
11	TP53	ENST00000269305	p.S127F	c.380	19.57954726	9.053	4
11	TP53	ENST00000269305	p.S127Y	c.380	19.57954726	9.053	4
11	TP53	ENST00000269305	p.L130F	c.388	11.85161775	7.594	4
11	TP53	ENST00000269305	p.L130V	c.388	11.85161775	7.594	2
11	TP53	ENST00000269305	p.L130P	c.389	11.85161775	7.594	1
11	TP53	ENST00000269305	p.PAL128in_frame_del	c.390_382	5.790500811	9.226	1
11	TP53	ENST00000269305	p.K132E	c.394	39.90153437	3.369	3
11	TP53	ENST00000269305	p.K132M	c.395	39.90153437	3.369	1
11	TP53	ENST00000269305	p.K132R	c.395	39.90153437	3.369	3
11	TP53	ENST00000269305	p.K132T	c.395	39.90153437	3.369	2
11	TP53	ENST00000269305	p.K132N	c.396	39.90153437	3.369	9
11	TP53	ENST00000269305	p.M133K	c.398	48.41880559	1.841	3
11	TP53	ENST00000269305	p.F134L	c.400	26.92128345	3.171	2
11	TP53	ENST00000269305	p.F134V	c.400	26.92128345	3.171	1
11	TP53	ENST00000269305	p.C135F	c.404	46.52115393	2.086	2
11	TP53	ENST00000269305	p.C135S	c.404	46.52115393	2.086	1
11	TP53	ENST00000269305	p.C135Y	c.404	46.52115393	2.086	3
11	TP53	ENST00000269305	p.C135W	c.405	46.52115393	2.086	2
11	TP53	ENST00000269305	p.Q136E	c.406	14.95835856	5.373	3
11	TP53	ENST00000269305	p.Q136P	c.407	14.95835856	5.373	1
11	TP53	ENST00000269305	p.Q136H	c.408	14.95835856	5.373	1
11	TP53	ENST00000269305	p.L137Q	c.410	18.33718489	6.413	1
11	TP53	ENST00000269305	p.A138T	c.412	12.66526936	6.762	1

11	TP53	ENST00000269305	p.A138V	c.413	12.66526936	6.762	1
11	TP53	ENST00000269305	p.K139N	c.417	9.582713075	7.722	2
11	TP53	ENST00000269305	p.C141R	c.421	19.96405103	7.959	2
11	TP53	ENST00000269305	p.C141S	c.422	19.96405103	7.959	1
11	TP53	ENST00000269305	p.C141Y	c.422	19.96405103	7.959	5
11	TP53	ENST00000269305	p.C141W	c.423	19.96405103	7.959	3
11	TP53	ENST00000269305	p.KTCP139in_frame_delT	c.424_416	9.582713075	7.722	1
11	TP53	ENST00000269305	p.AKTCP138in_frame_del	c.425_411	12.66526936	6.762	1
11	TP53	ENST00000269305	p.KTCP139in_frame_del	c.425_414	9.582713075	7.722	1
11	TP53	ENST00000269305	p.V143M	c.427	11.92536866	8.894	2
11	TP53	ENST00000269305	p.V143A	c.428	11.92536866	8.894	1
11	TP53	ENST00000269305	p.V143E	c.428	11.92536866	8.894	1
11	TP53	ENST00000269305	p.V143G	c.428	11.92536866	8.894	2
11	TP53	ENST00000269305	p.A161T	c.481	10.49216698	8.471	3
11	TP53	ENST00000269305	p.A161in_frame_del	c.486_481	10.49216698	8.471	1
11	TP53	ENST00000269305	p.Y163H	c.487	27.20029547	7.808	1
11	TP53	ENST00000269305	p.Y163N	c.487	27.20029547	7.808	1
11	TP53	ENST00000269305	p.Y162in_frame_delN	c.487_485	5.862388683	7.729	1
11	TP53	ENST00000269305	p.Y163C	c.488	27.20029547	7.808	10
11	TP53	ENST00000269305	p.K164E	c.490	17.05551583	5.151	3
11	TP53	ENST00000269305	p.H168L	c.503	28.12904525	7.829	2
11	TP53	ENST00000269305	p.H168P	c.503	28.12904525	7.829	1
11	TP53	ENST00000269305	p.H168R	c.503	28.12904525	7.829	1
11	TP53	ENST00000269305	p.V173L	c.517	19.5856813	8.297	7
11	TP53	ENST00000269305	p.V173M	c.517	19.5856813	8.297	6
11	TP53	ENST00000269305	p.V173G	c.518	19.5856813	8.297	1
11	TP53	ENST00000269305	p.R175C	c.523	87.61688858	8.539	4
11	TP53	ENST00000269305	p.R175G	c.523	87.61688858	8.539	4
11	TP53	ENST00000269305	p.R175H	c.524	87.61688858	8.539	63
11	TP53	ENST00000269305	p.C176F	c.527	32.59544664	9.594	10
11	TP53	ENST00000269305	p.C176S	c.527	32.59544664	9.594	1
11	TP53	ENST00000269305	p.C176Y	c.527	32.59544664	9.594	9
11	TP53	ENST00000269305	p.H179D	c.535	42.12317148	9.337	1
11	TP53	ENST00000269305	p.H179Y	c.535	42.12317148	9.337	6
11	TP53	ENST00000269305	p.H179L	c.536	42.12317148	9.337	2
11	TP53	ENST00000269305	p.H179P	c.536	42.12317148	9.337	1
11	TP53	ENST00000269305	p.H179R	c.536	42.12317148	9.337	19
11	TP53	ENST00000269305	p.H179Q	c.537	42.12317148	9.337	2
11	TP53	ENST00000269305	p.R181P	c.542	14.97347547	7.662	1
11	TP53	ENST00000269305	p.L194F	c.580	25.86379943	7.946	1
11	TP53	ENST00000269305	p.L194H	c.581	25.86379943	7.946	1
11	TP53	ENST00000269305	p.L194P	c.581	25.86379943	7.946	2
11	TP53	ENST00000269305	p.L194R	c.581	25.86379943	7.946	6
11	TP53	ENST00000269305	p.I195F	c.583	29.40683052	8.227	1
11	TP53	ENST00000269305	p.I195N	c.584	29.40683052	8.227	3
11	TP53	ENST00000269305	p.I195S	c.584	29.40683052	8.227	2
11	TP53	ENST00000269305	p.I195T	c.584	29.40683052	8.227	14
11	TP53	ENST00000269305	p.I195M	c.585	29.40683052	8.227	1
11	TP53	ENST00000269305	p.R196P	c.587	26.65042544	8.911	2

11	TP53	ENST00000269305	p.Y234H	c.700	27.75808273	7.599	1
11	TP53	ENST00000269305	p.Y234N	c.700	27.75808273	7.599	1
11	TP53	ENST00000269305	p.Y234C	c.701	27.75808273	7.599	10
11	TP53	ENST00000269305	p.Y234S	c.701	27.75808273	7.599	1
11	TP53	ENST00000269305	p.Y236D	c.706	26.53630716	4.729	1
11	TP53	ENST00000269305	p.Y236C	c.707	26.53630716	4.729	7
11	TP53	ENST00000269305	p.M237V	c.709	40.93035981	9.361	2
11	TP53	ENST00000269305	p.M237K	c.710	40.93035981	9.361	2
11	TP53	ENST00000269305	p.M237I	c.711	40.93035981	9.361	8
11	TP53	ENST00000269305	p.C238S	c.712	48.43219353	6.467	1
11	TP53	ENST00000269305	p.C238F	c.713	48.43219353	6.467	9
11	TP53	ENST00000269305	p.C238Y	c.713	48.43219353	6.467	8
11	TP53	ENST00000269305	p.N239D	c.715	18.7919751	5.874	1
11	TP53	ENST00000269305	p.N239S	c.716	18.7919751	5.874	4
11	TP53	ENST00000269305	p.S240G	c.718	27.59976191	2.866	2
11	TP53	ENST00000269305	p.MCN237in_frame_del	c.718_710	40.93035981	9.361	1
11	TP53	ENST00000269305	p.S241P	c.721	21.03328261	4.99	1
11	TP53	ENST00000269305	p.S241C	c.722	21.03328261	4.99	3
11	TP53	ENST00000269305	p.S241F	c.722	21.03328261	4.99	9
11	TP53	ENST00000269305	p.S241Y	c.722	21.03328261	4.99	1
11	TP53	ENST00000269305	p.NSS239in_frame_del	c.723_715	18.7919751	5.874	1
11	TP53	ENST00000269305	p.M246R	c.737	15.91818977	6.068	1
11	TP53	ENST00000269305	p.M246I	c.738	15.91818977	6.068	1
11	TP53	ENST00000269305	p.R248G	c.742	101.8821061	4.363	1
11	TP53	ENST00000269305	p.R248W	c.742_741	101.8821061	4.363	42
11	TP53	ENST00000269305	p.R248L	c.743	101.8821061	4.363	2
11	TP53	ENST00000269305	p.R248P	c.743	101.8821061	4.363	3
11	TP53	ENST00000269305	p.R248Q	c.743	101.8821061	4.363	46
11	TP53	ENST00000269305	p.R249G	c.745	30.65039501	8.464	6
11	TP53	ENST00000269305	p.R249W	c.745	30.65039501	8.464	2
11	TP53	ENST00000269305	p.R249M	c.746	30.65039501	8.464	5
11	TP53	ENST00000269305	p.R249T	c.746	30.65039501	8.464	1
11	TP53	ENST00000269305	p.R249S	c.747	30.65039501	8.464	6
11	TP53	ENST00000269305	p.P250L	c.750_749	16.0390717	5.888	7
11	TP53	ENST00000269305	p.I251F	c.751	17.47192205	4.644	1
11	TP53	ENST00000269305	p.I251S	c.752	17.47192205	4.644	1
11	TP53	ENST00000269305	p.L252P	c.755	7.928998617	8.429	1
11	TP53	ENST00000269305	p.L252in_frame_del	c.756_754	7.928998617	8.429	1
11	TP53	ENST00000269305	p.LTI252in_frame_del	c.762_754	7.928998617	8.429	1
11	TP53	ENST00000269305	p.F270I	c.808	16.90879978	5.136	2
11	TP53	ENST00000269305	p.F270L	c.808	16.90879978	5.136	2
11	TP53	ENST00000269305	p.F270C	c.809	16.90879978	5.136	1
11	TP53	ENST00000269305	p.F270S	c.809	16.90879978	5.136	3
11	TP53	ENST00000269305	p.E271K	c.811	30.274455	3.559	6
11	TP53	ENST00000269305	p.E271V	c.812	30.274455	3.559	1
11	TP53	ENST00000269305	p.V272M	c.814	19.68404124	5.011	7
11	TP53	ENST00000269305	p.V272G	c.815	19.68404124	5.011	1
11	TP53	ENST00000269305	p.R273C	c.817	133.2808656	0	55
11	TP53	ENST00000269305	p.R273S	c.817	133.2808656	0	3

11	TP53	ENST00000269305	p.R273H	c.818	133.2808656	0	49
11	TP53	ENST00000269305	p.R273L	c.818	133.2808656	0	9
11	TP53	ENST00000269305	p.R273P	c.818	133.2808656	0	3
11	TP53	ENST00000269305	p.V274F	c.820	24.72897031	4.647	2
11	TP53	ENST00000269305	p.V274L	c.820	24.72897031	4.647	1
11	TP53	ENST00000269305	p.V274D	c.821	24.72897031	4.647	1
11	TP53	ENST00000269305	p.V274G	c.821	24.72897031	4.647	1
11	TP53	ENST00000269305	p.C275F	c.824	25.29930843	3.886	4
11	TP53	ENST00000269305	p.C275Y	c.824	25.29930843	3.886	5
11	TP53	ENST00000269305	p.A276P	c.826	7.810869531	6.777	2
11	TP53	ENST00000269305	p.C277F	c.830	6.522796351	7.21	4
11	TP53	ENST00000269305	p.P278A	c.832	23.82425015	5.536	3
11	TP53	ENST00000269305	p.P278S	c.832	23.82425015	5.536	4
11	TP53	ENST00000269305	p.P278T	c.832	23.82425015	5.536	2
11	TP53	ENST00000269305	p.P278H	c.833	23.82425015	5.536	2
11	TP53	ENST00000269305	p.P278L	c.833	23.82425015	5.536	4
11	TP53	ENST00000269305	p.P278R	c.833	23.82425015	5.536	3
11	TP53	ENST00000269305	p.G279R	c.835	4.471111581	8.245	1
11	TP53	ENST00000269305	p.G279E	c.836	4.471111581	8.245	2
11	TP53	ENST00000269305	p.VCACPG274in_frame_del	c.836_819	24.72897031	4.647	1
11	TP53	ENST00000269305	p.R280G	c.838	16.06173724	9.403	3
11	TP53	ENST00000269305	p.R280I	c.839	16.06173724	9.403	3
11	TP53	ENST00000269305	p.R280K	c.839	16.06173724	9.403	4
11	TP53	ENST00000269305	p.R280T	c.839	16.06173724	9.403	4
11	TP53	ENST00000269305	p.R280S	c.840	16.06173724	9.403	1
11	TP53	ENST00000269305	p.D281H	c.841	14.6666203	6.654	1
11	TP53	ENST00000269305	p.D281N	c.841	14.6666203	6.654	2
11	TP53	ENST00000269305	p.D281Y	c.841	14.6666203	6.654	4
11	TP53	ENST00000269305	p.D281A	c.842	14.6666203	6.654	1
11	TP53	ENST00000269305	p.D281G	c.842	14.6666203	6.654	1
11	TP53	ENST00000269305	p.D281V	c.842	14.6666203	6.654	2
11	TP53	ENST00000269305	p.D281P	c.842_841	14.6666203	6.654	1
11	TP53	ENST00000269305	p.D281E	c.843	14.6666203	6.654	1
11	TP53	ENST00000269305	p.R282G	c.844	37.5582261	6.317	1
11	TP53	ENST00000269305	p.R282W	c.844	37.5582261	6.317	27
11	TP53	ENST00000269305	p.R282Q	c.845	37.5582261	6.317	1
11	TP53	ENST00000269305	p.R283P	c.848	5.080017638	8.935	3
11	TP53	ENST00000269305	p.T284P	c.850	0.498748218	8.979	1
11	TP53	ENST00000269305	p.E285K	c.853	21.63403254	4.973	7
11	TP53	ENST00000269305	p.E286K	c.856	18.25668213	7.448	6
11	TP53	ENST00000269305	p.E286Q	c.856	18.25668213	7.448	1
11	TP53	ENST00000269305	p.E286A	c.857	18.25668213	7.448	1
11	TP53	ENST00000269305	p.E286G	c.857	18.25668213	7.448	3
11	TP53	ENST00000269305	p.E286V	c.857	18.25668213	7.448	1
12	ITGB1	ENST00000374956	p.M149L	c.445	2.036284225	0	1
12	ITGB1	ENST00000374956	p.M149V	c.445	2.036284225	0	1
12	ITGB1	ENST00000374956	p.M149I	c.447	2.036284225	0	1
12	ITGB1	ENST00000374956	p.V162G	c.485	0.085595029	9.665	1
12	ITGB1	ENST00000374956	p.V236A	c.707	0.142463166	6.055	1

12	ITGB1	ENST00000374956	p.F276L	c.826	0.065024735	5.643	1
13	AGT	ENST00000366667	p.N426S	c.1277	0.117305393	3.16	1
13	AGT	ENST00000366667	p.S427N	c.1280	0.009957496	6.803	1
13	AGT	ENST00000366667	p.A138T	c.412	0.130523779	0	1
13	AGT	ENST00000366667	p.V187L	c.559	0.117439722	7.552	1
13	AGT	ENST00000366667	p.V209A	c.626	0.115144673	7.841	1
14	AOC1	ENST00000416793	p.P552S	c.1654	0.06858235	5.307	1
14	AOC1	ENST00000416793	p.L605M	c.1813	1.025260027	0	2
15	CALM1	ENST00000447653	p.E84K	c.250	0.522528728	6.258	1
15	CALM2	ENST00000409563	p.S86Y	c.257	0.219026292	5.393	1
15	CALM1	ENST00000447653	p.R108C	c.322	1.108838033	0	1
15	CALM1	ENST00000447653	p.R108H	c.323	1.108838033	0	1
15	CALM2	ENST00000409563	p.R134T	c.401	0.612137286	5.961	1
15	CALM2	ENST00000409563	p.R138C	c.412	0.396021139	7.029	1
15	CALM2	ENST00000409563	p.R154C	c.460	0.110966455	8.876	1
15	CALM2	ENST00000409563	p.Y186C	c.557	0.967408789	4.438	1
16	CYP3A4	ENST00000336411	p.A370V	c.1109	0.020416278	9.218	1
16	CYP3A4	ENST00000336411	p.D425E	c.1275	0.027012819	9.933	1
16	CYP3A4	ENST00000336411	p.N426S	c.1277	0.28336829	6.509	1
16	CYP3A4	ENST00000336411	p.R440K	c.1319	0.437455845	0	1
16	CYP3A4	ENST00000336411	p.K476E	c.1426	0.231348982	2.59	1
16	CYP3A4	ENST00000336411	p.S119F	c.356	0.299618595	3.77	1
16	CYP3A4	ENST00000336411	p.E122K	c.364	0.22422792	3.758	1
16	CYP3A4	ENST00000336411	p.E125K	c.373	0.045770436	5.845	1
16	CYP3A4	ENST00000336411	p.R130Q	c.389	0.097728201	3.876	1
16	CYP3A4	ENST00000336411	p.R212I	c.635	0.025023052	9.991	1
16	CYP3A4	ENST00000336411	p.A297T	c.889	0.094638902	6.399	1
16	CYP3A4	ENST00000336411	p.Y319C	c.956	0.033972448	6.365	1
17	RPS27A	ENST00000272317	p.A46V	c.137	0.013574097	6.203	1
17	RPS27A	ENST00000272317	p.L67V	c.199	0.016170986	0	1
17	RPS27A	ENST00000272317	p.G10E	c.29	0.002596889	8.589	1
18	TRIP10	ENST00000313244	p.P497L	c.1490	0.019464647	0	1
18	TRIP10	ENST00000313244	p.E535K	c.1603	0.019464647	5.683	1
19	MYH7	ENST00000355349	p.R143W	c.427	0.063849836	4	1
19	MYH7	ENST00000355349	p.G144S	c.430	0.03513855	5.533	1
19	MYH7	ENST00000355349	p.E217K	c.649	0.084097378	0	1
20	TFRC	ENST00000360110	p.S338C	c.1013	0.106117462	3.25	1
20	TFRC	ENST00000360110	p.Y211S	c.632	0.010570538	6.708	1
20	TFRC	ENST00000360110	p.E294K	c.880	0.11467718	0	1
21	CES1	ENST00000360526	p.Y84C	c.251	0.187351547	6.358	1
21	CES1	ENST00000360526	p.P86L	c.257	0.21415535	5.818	1
21	CES1	ENST00000360526	p.C88F	c.263	0.263163191	5.635	1
21	CES1	ENST00000360526	p.L98I	c.292	0.080913895	5.618	1
21	CES1	ENST00000360526	p.R105Q	c.314	0.212305674	5.45	1
21	CES1	ENST00000360526	p.D116N	c.346	0.248141276	8.866	1
21	CES1	ENST00000360526	p.A149V	c.446	1.096798837	0	2
21	CES1	ENST00000360526	p.R172C	c.514	0.280029385	9.504	1
22	CBFB	ENST00000412916	p.P70S	c.208	0.006301889	0	1
22	CBFB	ENST00000412916	p.A99V	c.296	0.006301889	7.31	1

23 EIF2B1	ENST00000424014	p.A129T	c.385	0.006504184	0	1
23 EIF2B1	ENST00000424014	p.V178L	c.532	0.004274585	7.87	1
23 EIF2B1	ENST00000424014	p.A181T	c.541	0.002229599	8.809	1
24 SERPINA12	ENST00000556881	p.F139L	c.417	0.088356034	5.547	1
24 SERPINA12	ENST00000556881	p.E161K	c.481	0.168144651	0	1
24 SERPINA12	ENST00000556881	p.K184N	c.552	0.148499724	2.782	1
24 SERPINA12	ENST00000556881	p.V201A	c.602	0.065223341	9.516	1
25 CDK7	ENST00000256443	p.K41N	c.123	0.027288391	0	1
25 CDK7	ENST00000256443	p.A159T	c.475	0.008590751	6.863	1
25 CDK7	ENST00000256443	p.S161Y	c.482	0.022587678	5.741	1
26 ITGB3	ENST00000559488	p.E664K	c.1990	0.069444296	3.848	1
26 ITGB3	ENST00000559488	p.K702T	c.2105	0.069444296	0	1
27 CYP1A1	ENST00000567032	p.R477W	c.1429	0.062698389	7.403	1
27 CYP1A1	ENST00000567032	p.E479K	c.1435	0.223106233	0	1
27 CYP1A1	ENST00000567032	p.V482M	c.1444	0.061006749	7.993	1
27 CYP1A1	ENST00000567032	p.Q507K	c.1519	0.139834016	3.747	1
27 CYP1A1	ENST00000567032	p.Q509L	c.1526	0.198063535	2.849	1
28 SH2D1A	ENST00000371139	p.M1V	c.1	0.210616574	4.238	1
28 SH2D1A	ENST00000371139	p.Y7H	c.19	0.23858751	2.784	1
28 SH2D1A	ENST00000371139	p.W64C	c.192	0.133570453	7.24	1
28 SH2D1A	ENST00000371139	p.H8Y	c.22	0.623152796	1.636	1
28 SH2D1A	ENST00000371139	p.V102I	c.304	0.346770793	3.9	1
28 SH2D1A	ENST00000371139	p.K104N	c.312	0.678437333	0	1
28 SH2D1A	ENST00000371139	p.L25M	c.73	0.170428109	3.558	1
29 TRAF6	ENST00000348124	p.L409F	c.1225	0.01823401	5.861	1
29 TRAF6	ENST00000348124	p.L435I	c.1303	0.060816683	4.064	1
29 TRAF6	ENST00000348124	p.R496C	c.1486	0.076993347	0	1
30 EPB41	ENST00000373798	p.D46H	c.136	0.096939953	3.407	1
30 EPB41	ENST00000373798	p.N47T	c.140	0.030947651	5.144	1
30 EPB41	ENST00000373798	p.E75Q	c.223	0.122555207	0	1
31 DUSP22	ENST00000419235	p.P59S	c.175	0.140560429	0	1
31 DUSP22	ENST00000419235	p.V129M	c.385	0.049199756	4.477	1
31 DUSP22	ENST00000419235	p.G130D	c.389	0.099951424	3.386	1
32 FAP	ENST00000188790	p.T404I	c.1211	0.057837058	4.148	1
32 FAP	ENST00000188790	p.S407L	c.1220	0.018607046	6.928	1
32 FAP	ENST00000188790	p.A459T	c.1375	0.089983883	0	1
32 FAP	ENST00000188790	p.R480H	c.1439	0.03719082	5.301	1
33 SELP	ENST00000263686	p.T102I	c.305	0.007149212	7.128	1
33 SELP	ENST00000263686	p.D130N	c.388	0.007149212	0	1
34 GGH	ENST00000260118	p.A58V	c.173	0.005451995	7.519	1
34 GGH	ENST00000260118	p.E65Q	c.193	0.083215726	3.587	1
34 GGH	ENST00000260118	p.V74I	c.220	0.018425166	7.485	1
34 GGH	ENST00000260118	p.I297M	c.891	0.094249729	0	1
35 ADAT2	ENST00000237283	p.A14V	c.41	0.01132771	0	1
35 ADAT2	ENST00000237283	p.A143V	c.428	0.01132771	6.464	1
36 ACE	ENST00000290866	p.R508Q	c.1523	2.015646676	0	3
36 ACE	ENST00000290866	p.W628C	c.1884	0.046940028	5.998	1
37 MEPCE	ENST00000310512	p.E645Q	c.1933	0.001604122	0	1
37 MEPCE	ENST00000310512	p.P677H	c.2030	0.001604122	9.284	1

38 VHL	ENST00000256474	p.S65L	c.194	5.516677126	2.215	2
38 VHL	ENST00000256474	p.S65W	c.194	5.516677126	2.215	1
38 VHL	ENST00000256474	p.P86L	c.257	0.42181287	8.59	1
38 VHL	ENST00000256474	p.W88R	c.262	3.74191187	4.943	1
38 VHL	ENST00000256474	p.W88L	c.263	3.74191187	4.943	2
38 VHL	ENST00000256474	p.L89H	c.266	9.255959724	0	7
38 VHL	ENST00000256474	p.L89P	c.266	9.255959724	0	2
38 VHL	ENST00000256474	p.N90I	c.269	0.748717032	5.331	1
38 VHL	ENST00000256474	p.G93V	c.278	0.163533077	7.516	1
38 VHL	ENST00000256474	p.S111N	c.332	6.557684786	8.4	5
38 VHL	ENST00000256474	p.S111R	c.333	6.557684786	8.4	2
38 VHL	ENST00000256474	p.Y112D	c.334	0.197577875	8.885	1
38 VHL	ENST00000256474	p.G114R	c.340	3.61363956	5.74	2
38 VHL	ENST00000256474	p.G114R	c.340	3.61363956	5.74	2
38 VHL	ENST00000256474	p.H115N	c.343	3.260166059	5.469	2
38 VHL	ENST00000256474	p.H115Y	c.343	3.260166059	5.469	1
38 VHL	ENST00000256474	p.L116in_frame_del	c.346_348	2.302171553	2.759	1
38 VHL	ENST00000256474	p.W117C	c.351	0.968460014	4.792	1
38 VHL	ENST00000256474	p.L135F	c.405	1.641428999	4.024	2
38 VHL	ENST00000256474	p.F136V	c.406	2.017421545	8.774	1
38 VHL	ENST00000256474	p.F136Y	c.407	2.017421545	8.774	1
38 VHL	ENST00000256474	p.R205C	c.613	0.096858109	8.571	1
39 TNFRSF21	ENST00000296861	p.I599M	c.1797	0.164595865	0	1
39 TNFRSF21	ENST00000296861	p.V647A	c.1940	0.164595865	2.603	1
40 TBX3	ENST00000257566	p.H187Y	c.559	1.01060582	0	2
40 TBX3	ENST00000257566	p.G232R	c.694	0.05706499	6.559	1
41 ME1	ENST00000369705	p.L391I	c.1171	0.163187405	3.706	1
41 ME1	ENST00000369705	p.R400Q	c.1199	0.147757998	7.532	1
41 ME1	ENST00000369705	p.P401H	c.1202	0.195687185	4.389	1
41 ME1	ENST00000369705	p.T424I	c.1271	1.13288595	0	1
41 ME1	ENST00000369705	p.T424S	c.1271	1.13288595	0	1
41 ME1	ENST00000369705	p.R427H	c.1280	0.190271065	8.321	1
42 VAT1L	ENST00000302536	p.K267N	c.801	0.030357047	6.848	1
42 VAT1L	ENST00000302536	p.Y272N	c.814	0.269853468	2.896	1
42 VAT1L	ENST00000302536	p.A314T	c.940	1.143024184	0	1
42 VAT1L	ENST00000302536	p.A314E	c.941	1.143024184	0	1
43 CRP	ENST00000343919	p.S39F	c.116	0.100595085	8.776	1
43 CRP	ENST00000343919	p.G92C	c.274	1.20559359	4.199	1
43 CRP	ENST00000343919	p.G92S	c.274	1.20559359	4.199	1
43 CRP	ENST00000343919	p.QG91in_frame_delR	c.274_272	0.336088521	3.35	1
43 CRP	ENST00000343919	p.F29L	c.85	0.356421557	6.81	1
43 CRP	ENST00000343919	p.P30S	c.88	1.406082028	0	1
43 CRP	ENST00000343919	p.P30L	c.89	1.406082028	0	1
44 PLG	ENST00000308192	p.K104M	c.311	0.414093539	5.719	1
44 PLG	ENST00000308192	p.D158N	c.472	1.025939843	0	2
44 PLG	ENST00000308192	p.P159S	c.475	0.106210951	9.359	1
44 PLG	ENST00000308192	p.G161K	c.481_482	0.108869361	9.321	1
44 PLG	ENST00000308192	p.E182D	c.546	0.246625698	8.014	1
45 HMBS	ENST00000537841	p.S58R	c.172	0.015239929	6.036	1

45	HMBS	ENST00000537841	p.A105T	c.313	0.05066032	4.303	1
45	HMBS	ENST00000537841	p.I188S	c.563	0.065900249	0	1
46	CFTR	ENST00000003084	p.E403K	c.1206_1207	0.031091957	6.653	1
46	CFTR	ENST00000003084	p.G542R	c.1624	0.028471964	7.002	1
46	CFTR	ENST00000003084	p.G576R	c.1726	0.191533794	8.936	1
46	CFTR	ENST00000003084	p.E583K	c.1747	1.071041119	0	2
46	CFTR	ENST00000003084	p.D651N	c.1951	0.090738921	6.208	1
46	CFTR	ENST00000003084	p.R658K	c.1973	0.145850263	4.728	1
47	DDX41	ENST00000330503	p.E458G	c.1373	0.083153894	7.278	1
47	DDX41	ENST00000330503	p.H481Y	c.1441	1.006443231	0	2
48	VIL1	ENST00000248444	p.F660in_frame_del	c.1973_1975	0.028281452	5.144	1
48	VIL1	ENST00000248444	p.K699N	c.2097	0.028281452	0	1
49	DUPD1	ENST00000338487	p.M168T	c.503	0.032173128	0	1
49	DUPD1	ENST00000338487	p.L200Q	c.599	0.032173128	4.958	1
50	RGS8	ENST00000258302	p.C107S	c.320	0.007763915	0	1
50	RGS8	ENST00000258302	p.G166E	c.497	0.007763915	7.009	1
51	AXL	ENST00000301178	p.R48W	c.142	1	0	2
52	RPL11	ENST00000374550	p.F107V	c.319	0.016086564	5.958	1
52	RPL11	ENST00000374550	p.R16C	c.46	0.002915087	9.74	1
52	RPL11	ENST00000374550	p.F166L	c.496	0.017255977	0	1
53	CUL4B	ENST00000404115	p.D348H	c.1042	0.109815573	9.343	1
53	CUL4B	ENST00000404115	p.R369Q	c.1106	1.113513223	0	2
53	CUL4B	ENST00000404115	p.K403T	c.1208	0.052315792	7.994	1
53	CUL4B	ENST00000404115	p.Y431S	c.1292	0.222630734	3.503	1
53	CUL4B	ENST00000404115	p.H296Y	c.886	0.154637554	5.655	1
54	CAMK1D	ENST00000378847	p.R126C	c.376	0.008092806	7.739	1
54	CAMK1D	ENST00000378847	p.V128D	c.383	0.084252417	5.754	1
54	CAMK1D	ENST00000378847	p.A131V	c.392	0.020997087	6.543	1
54	CAMK1D	ENST00000378847	p.V132M	c.394	0.09351352	3.619	1
54	CAMK1D	ENST00000378847	p.L150I	c.448	0.065271862	9.971	1
54	CAMK1D	ENST00000378847	p.S206F	c.617	0.041110072	8.919	1
54	CAMK1D	ENST00000378847	p.C270Y	c.809	0.118387479	0	1
55	ADH1A	ENST00000209668	p.V42M	c.124	0.153463364	0	1
55	ADH1A	ENST00000209668	p.G45E	c.134	0.084944408	8.215	1
55	ADH1A	ENST00000209668	p.H68Y	c.202	0.138771363	4.272	1
55	ADH1A	ENST00000209668	p.S165L	c.494	0.01717555	6.863	1
55	ADH1A	ENST00000209668	p.P166T	c.496	0.103721272	3.478	1
56	MAT1A	ENST00000372213	p.L160F	c.478	0.024416496	5.356	1
56	MAT1A	ENST00000372213	p.V204I	c.610	0.04625473	0	1
56	MAT1A	ENST00000372213	p.V241I	c.721	0.021838234	5.517	1
57	FGD5	ENST00000285046	p.N1090D	c.3268	0.012056876	0	1
57	FGD5	ENST00000285046	p.G1111V	c.3332	0.012056876	6.374	1
58	PECR	ENST00000265322	p.P160S	c.478	0.006953717	7.168	1
58	PECR	ENST00000265322	p.I196M	c.588	0.0078125	7	1
58	PECR	ENST00000265322	p.L267F	c.799	0.014766217	0	1
59	LEPR	ENST00000349533	p.I434S	c.1301	0.069629706	3.934	1
59	LEPR	ENST00000349533	p.L464M	c.1390	0.101945826	0	1
59	LEPR	ENST00000349533	p.S483Y	c.1448	0.039360301	9.546	1
59	LEPR	ENST00000349533	p.R514S	c.1542	0.077409093	4.829	1

60	ACTN2	ENST00000542672	p.S431L	c.1292	0.101319194	0	1
60	ACTN2	ENST00000542672	p.A432V	c.1295	0.028182254	9.638	1
60	ACTN2	ENST00000542672	p.N590D	c.1768	0.057824129	4.892	1
60	ACTN2	ENST00000542672	p.R592I	c.1775	0.087526896	3.913	1
61	ERBB4	ENST00000342788	p.P594T	c.1780	0.088378196	3.993	1
61	ERBB4	ENST00000342788	p.Y268C	c.803	0.318637894	0	1
61	ERBB4	ENST00000342788	p.S303F	c.908	0.111929578	3.455	1
61	ERBB4	ENST00000342788	p.C304F	c.911	0.175928421	2.731	1
61	ERBB4	ENST00000342788	p.R306C	c.916	0.017414644	6.156	1
62	OPRK1	ENST00000265572	p.C345R	c.1033	0.028879537	8.693	1
62	OPRK1	ENST00000265572	p.R354L	c.1061	0.652094149	5.394	1
62	OPRK1	ENST00000265572	p.R361Q	c.1082	1.18154224	0	2
62	OPRK1	ENST00000265572	p.D366N	c.1096	0.08362318	8.605	1
62	OPRK1	ENST00000265572	p.I84T	c.251	0.069721193	9.92	1
62	OPRK1	ENST00000265572	p.R86Q	c.257	0.232412743	3.315	1
62	OPRK1	ENST00000265572	p.M90I	c.270	0.681045212	4.325	1
62	OPRK1	ENST00000265572	p.N95T	c.284	0.091630958	9.513	1
63	DUSP22	ENST00000419235	p.D39N	c.115	1.105720836	0	2
63	DUSP22	ENST00000419235	p.A56V	c.167	1.089574865	7.169	2
63	DUSP22	ENST00000419235	p.R94M	c.281	0.335000215	3.445	1
64	MME	ENST00000360490	p.N514I	c.1541	0.094724455	3.821	1
64	MME	ENST00000360490	p.P162A	c.484	0.194171346	2.692	1
64	MME	ENST00000360490	p.E185K	c.553	0.163115596	8.325	1
64	MME	ENST00000360490	p.S193Y	c.578	0.412619117	0	1
64	MME	ENST00000360490	p.E329K	c.985	0.13642752	4.332	1
64	MME	ENST00000360490	p.T333I	c.998	0.171309257	2.896	1
65	MLYCD	ENST00000262430	p.L406M	c.1216	0.003280201	8.252	1
65	MLYCD	ENST00000262430	p.Q479R	c.1436	0.003280201	0	1
66	PTPRN2	ENST00000404321	p.V863M	c.2587	0.024247439	0	1
66	PTPRN2	ENST00000404321	p.R911K	c.2732	0.006447699	7.277	1
66	PTPRN2	ENST00000404321	p.Y957H	c.2869	0.01779974	5.812	1
67	MAD2L1	ENST00000296509	p.Y77F	c.230	0.032509383	4.943	1
67	MAD2L1	ENST00000296509	p.G15R	c.43	0.032509383	0	1
68	DDX53	ENST00000327968	p.M426I	c.1278	0.047497652	4.396	1
68	DDX53	ENST00000327968	p.L208F	c.624	0.047497652	0	1
69	PIP4K2A	ENST00000376573	p.R349G	c.1045	0.021157118	5.901	1
69	PIP4K2A	ENST00000376573	p.E351D	c.1053	0.0444037	4.68	1
69	PIP4K2A	ENST00000376573	p.Y353F	c.1058	0.053076241	4.291	1
69	PIP4K2A	ENST00000376573	p.K244T	c.731	0.106828644	0	1
70	GIMAP7	ENST00000313543	p.V157I	c.469	0.025676152	7.969	1
70	GIMAP7	ENST00000313543	p.E32K	c.94	1.003991094	0	2
71	CNOT1	ENST00000317147	p.A1396T	c.4186	0.010806177	6.532	1
71	CNOT1	ENST00000317147	p.N1471H	c.4411	0.010806177	0	1
72	ALPP	ENST00000392027	p.A183V	c.548	0.109727725	0	1
72	ALPP	ENST00000392027	p.Q211K	c.631	0.109727725	3.188	1
73	GNPDA1	ENST00000311337	p.L39H	c.116	0.080380982	0	1
73	GNPDA1	ENST00000311337	p.K67N	c.201	0.020252896	6.831	1
73	GNPDA1	ENST00000311337	p.F94in_frame_del	c.282_280	0.060484791	4.224	1
73	GNPDA1	ENST00000311337	p.G136A	c.407	0.018085785	5.789	1

74	CD300A	ENST00000360141	p.D115N	c.343	0.009813612	0	1
74	CD300A	ENST00000360141	p.R22K	c.65	0.009813612	6.671	1
75	MGAM	ENST00000475668	p.D422G	c.1265	0.068794651	4.315	1
75	MGAM	ENST00000475668	p.P453S	c.1357	0.220162923	0	1
75	MGAM	ENST00000475668	p.P499S	c.1495	0.174055056	2.746	1
75	MGAM	ENST00000475668	p.S534F	c.1601	0.053318764	5.705	1
75	MGAM	ENST00000475668	p.L568V	c.1702	0.054880379	9.21	1
76	CHKA	ENST00000265689	p.M183T	c.548	0.02295576	0	1
76	CHKA	ENST00000265689	p.F235L	c.705	0.02295576	5.445	1
77	PRSS1	ENST00000486171	p.Y37C	c.110	0.206498252	9.713	1
77	PRSS1	ENST00000486171	p.H46L	c.137	0.168213404	7.612	1
77	PRSS1	ENST00000486171	p.E93D	c.279	0.39716363	8.77	1
77	PRSS1	ENST00000486171	p.R136L	c.407	0.327772607	8.73	1
77	PRSS1	ENST00000486171	p.T149N	c.446	0.185248804	9.218	1
77	PRSS1	ENST00000486171	p.N160Y	c.478	0.308901268	8.271	1
77	PRSS1	ENST00000486171	p.A162T	c.484	1.197404713	0	1
77	PRSS1	ENST00000486171	p.A162E	c.485	1.197404713	0	1
77	PRSS1	ENST00000486171	p.A177T	c.529	0.728745772	8.45	1
77	PRSS1	ENST00000486171	p.P178S	c.532	0.754880592	8.919	1
77	PRSS1	ENST00000486171	p.K207M	c.620	0.368035698	7.118	1
77	PRSS1	ENST00000486171	p.S209L	c.626	0.309746186	5.39	1
77	PRSS1	ENST00000486171	p.G212D	c.635	0.383200034	4.106	1
77	PRSS1	ENST00000486171	p.D22N	c.64	0.395171137	3.965	1
77	PRSS1	ENST00000486171	p.K237in_frame_del	c.707_709	0.225483813	9.359	1
77	PRSS1	ENST00000486171	p.V25A	c.74	0.525185527	8.819	1
77	PRSS1	ENST00000486171	p.C30Y	c.89	0.623021853	5.664	1
78	NAALAD2	ENST00000534061	p.H367N	c.1099	0.255620656	5.914	1
78	NAALAD2	ENST00000534061	p.D377E	c.1131	0.198707283	6.015	1
78	NAALAD2	ENST00000534061	p.E387K	c.1159	0.209283153	9.298	1
78	NAALAD2	ENST00000534061	p.N441K	c.1323	0.310865043	3.548	1
78	NAALAD2	ENST00000534061	p.S442L	c.1325	0.472604605	2.963	1
78	NAALAD2	ENST00000534061	p.D443G	c.1328	0.685573964	2.897	1
78	NAALAD2	ENST00000534061	p.S445C	c.1334	0.30839966	3.542	1
78	NAALAD2	ENST00000534061	p.M55I	c.165	0.249648501	6.025	1
78	NAALAD2	ENST00000534061	p.A567T	c.1699	0.141665466	9.44	1
78	NAALAD2	ENST00000534061	p.R570Q	c.1709	2.48427909	0	3
79	STAT1	ENST00000409465	p.S452Y	c.1355	0.049945139	9.781	1
79	STAT1	ENST00000409465	p.A479V	c.1436	0.260788388	2.964	1
79	STAT1	ENST00000409465	p.R482M	c.1445	0.106830694	4.841	1
79	STAT1	ENST00000409465	p.R241W	c.721	1.164186082	0	2
81	ARHGDI	ENST00000541644	p.V115M	c.343	0.00537321	7.54	1
81	ARHGDI	ENST00000541644	p.G144C	c.430	0.00537321	0	1
82	XPO5	ENST00000265351	p.R452C	c.1354	0.00728932	7.1	1
82	XPO5	ENST00000265351	p.R519Q	c.1556	0.00728932	0	1
83	HMGCL	ENST00000374490	p.G112C	c.334	0.015345931	0	1
83	HMGCL	ENST00000374490	p.S159L	c.476	0.015345931	6.026	1
84	REN	ENST00000272190	p.R43Q	c.128	0.062624747	9.024	1
84	REN	ENST00000272190	p.S107L	c.320	0.182216573	5.872	1
84	REN	ENST00000272190	p.R148C	c.442	1.175905089	0	1

84 REN	ENST00000272190	p.R148H	c.443	1.175905089	0	1
84 REN	ENST00000272190	p.A182V	c.545	0.049976706	6.631	1
84 REN	ENST00000272190	p.Q201L	c.602	0.247887678	4.576	1
84 REN	ENST00000272190	p.L312F	c.936	0.244336725	3.253	1
85 SI	ENST00000264382	p.L624V	c.1870	0.006574058	7.249	1
85 SI	ENST00000264382	p.C283S	c.848	0.006574058	0	1
86 SI	ENST00000264382	p.D427G	c.1280	0.415647612	9.485	1
86 SI	ENST00000264382	p.E466K	c.1396	0.096377772	4.608	1
86 SI	ENST00000264382	p.D505E	c.1515	0.118683904	9.897	1
86 SI	ENST00000264382	p.M506V	c.1516	0.268311866	6.313	1
86 SI	ENST00000264382	p.S510P	c.1528	1.194053388	0	1
86 SI	ENST00000264382	p.S510Y	c.1529	1.194053388	0	1
86 SI	ENST00000264382	p.D264G	c.791	0.39257363	2.857	1
87 MEP1B	ENST00000269202	p.Y346H	c.1036	0.156237335	3.526	1
87 MEP1B	ENST00000269202	p.I380T	c.1139	0.085198278	8.689	1
87 MEP1B	ENST00000269202	p.W385C	c.1155	0.160150689	0	1
87 MEP1B	ENST00000269202	p.I434T	c.1301	0.096065965	7.472	1
87 MEP1B	ENST00000269202	p.D578N	c.1732	0.158124032	4.005	1
87 MEP1B	ENST00000269202	p.R293W	c.877	0.037579752	8.38	1
88 DARS	ENST00000264161	p.L80I	c.238	0.015953314	5.97	1
88 DARS	ENST00000264161	p.V139I	c.415	0.021546942	0	1
88 DARS	ENST00000264161	p.Y29F	c.86	0.005593628	7.482	1
89 NCAM1	ENST00000524665	p.A464G	c.1391	0.008680537	6.848	1
89 NCAM1	ENST00000524665	p.P465Q	c.1394	0.017253107	5.857	1
89 NCAM1	ENST00000524665	p.P491S	c.1471	0.025933644	0	1
90 PPP2R1A	ENST00000322088	p.R105Q	c.314	0.19562623	9.474	1
90 PPP2R1A	ENST00000322088	p.S143F	c.428	0.245795419	7.146	1
90 PPP2R1A	ENST00000322088	p.R144C	c.430	2.017673887	3.954	1
90 PPP2R1A	ENST00000322088	p.R144H	c.431	2.017673887	3.954	1
90 PPP2R1A	ENST00000322088	p.T145P	c.433	0.460030453	6.313	1
90 PPP2R1A	ENST00000322088	p.L173M	c.517	0.366856295	7.5	1
90 PPP2R1A	ENST00000322088	p.P179R	c.536	7.298162631	0	8
90 PPP2R1A	ENST00000322088	p.R183W	c.547	6.362422002	7.405	5
90 PPP2R1A	ENST00000322088	p.R183Q	c.548	6.362422002	7.405	2
90 PPP2R1A	ENST00000322088	p.D215H	c.643	0.228419611	5.689	1
90 PPP2R1A	ENST00000322088	p.V220M	c.658	1.497369249	3.965	1
90 PPP2R1A	ENST00000322088	p.R258C	c.772	4.236709803	8.132	2
90 PPP2R1A	ENST00000322088	p.R258H	c.773	4.236709803	8.132	3
91 AKR1D1	ENST00000242375	p.L147M	c.439	0.009303569	0	1
91 AKR1D1	ENST00000242375	p.V168M	c.502	0.009303569	6.748	1
92 PTPRT	ENST00000373198	p.Y970C	c.2909	0.122642054	4.736	1
92 PTPRT	ENST00000373198	p.H975Y	c.2923	0.010517969	7.571	1
92 PTPRT	ENST00000373198	p.P982L	c.2945	0.145762408	7.151	1
92 PTPRT	ENST00000373198	p.R1018Q	c.3053	1.085423231	0	2
92 PTPRT	ENST00000373198	p.H1072N	c.3214	0.011396101	8.255	1
92 PTPRT	ENST00000373198	p.L1081F	c.3241	0.065872396	4.951	1
93 CLASP1	ENST00000263710	p.L353V	c.1057	0.018909001	0	1
93 CLASP1	ENST00000263710	p.A305T	c.913	0.008930768	6.807	1
93 CLASP1	ENST00000263710	p.I314M	c.942	0.009978232	6.647	1

94 FCAR	ENST00000345937	p.M61I	c.183	1.11132324	0	2
94 FCAR	ENST00000345937	p.R97G	c.289	0.340705839	4.164	1
94 FCAR	ENST00000345937	p.R103K	c.308	0.081016865	4.95	1
94 FCAR	ENST00000345937	p.F109I	c.325	0.013734993	7.186	1
94 FCAR	ENST00000345937	p.R110W	c.328	0.027861307	7.472	1
95 BACH2	ENST00000257749	p.Y61C	c.182	0.110201524	3.557	1
95 BACH2	ENST00000257749	p.L78V	c.232	0.035361133	5.593	1
95 BACH2	ENST00000257749	p.E80K	c.238	0.02651151	6.411	1
95 BACH2	ENST00000257749	p.V82F	c.244	0.197739436	3.538	1
95 BACH2	ENST00000257749	p.C112F	c.335	0.192543446	7.177	1
95 BACH2	ENST00000257749	p.F115L	c.345	0.210434547	0	1
97 ADH4	ENST00000508393	p.G390E	c.1169	0.062543337	3.999	1
97 ADH4	ENST00000508393	p.K253T	c.758	0.062543337	0	1
98 C3	ENST00000245907	p.F829L	c.2487	0.1180453	0	1
98 C3	ENST00000245907	p.V850G	c.2549	0.091628613	6.678	1
98 C3	ENST00000245907	p.L860F	c.2578	0.09410191	3.432	1
98 C3	ENST00000245907	p.G924V	c.2771	0.04459989	6	1
99 TCERG1	ENST00000296702	p.R1032G	c.3094	0.014528202	6.105	1
99 TCERG1	ENST00000296702	p.V1075A	c.3224	0.014528202	0	1
100 HFE	ENST00000357618	p.E48K	c.142	0.026588421	7.368	1
100 HFE	ENST00000357618	p.R71Q	c.212	1.016469958	0	2
100 HFE	ENST00000357618	p.G260V	c.779	0.020832792	6.585	1
101 GABBR2	ENST00000259455	p.F428V	c.1282	0.011249463	6.474	1
101 GABBR2	ENST00000259455	p.P184L	c.551	0.011249463	0	1
102 PTPN11	ENST00000351677	p.V428M	c.1282	0.094049056	6.727	1
102 PTPN11	ENST00000351677	p.I463L	c.1387	0.178566923	4.931	1
102 PTPN11	ENST00000351677	p.T468M	c.1403	3.319684691	3.722	4
102 PTPN11	ENST00000351677	p.Q510L	c.1529	3.345349104	0	2
102 PTPN11	ENST00000351677	p.Q510H	c.1530	3.345349104	0	2
103 DDB1	ENST00000301764	p.N36T	c.107	0.246010829	5.668	1
103 DDB1	ENST00000301764	p.E1002K	c.3004	0.236155672	7.981	1
103 DDB1	ENST00000301764	p.G1035S	c.3103	0.055165274	6.459	1
103 DDB1	ENST00000301764	p.R327C	c.979	1.034993152	0	2
104 HGF	ENST00000222390	p.R134H	c.401	0.262909949	5.947	1
104 HGF	ENST00000222390	p.Y136C	c.407	0.445048643	2.905	1
104 HGF	ENST00000222390	p.T139K	c.416	0.126179235	4.401	1
104 HGF	ENST00000222390	p.C149Y	c.446	0.209380456	6.718	1
104 HGF	ENST00000222390	p.N175S	c.524	0.272527953	9.525	1
104 HGF	ENST00000222390	p.R178Q	c.533	1.232388086	0	2
104 HGF	ENST00000222390	p.R181P	c.542	0.161868552	8.732	1
104 HGF	ENST00000222390	p.P187S	c.559	1.111510976	6.751	2
104 HGF	ENST00000222390	p.P204S	c.610	0.115162945	9.649	1
104 HGF	ENST00000222390	p.V209I	c.625	0.218997838	8.755	1
105 CYP2B6	ENST00000324071	p.R358I	c.1073	0.358264795	2.741	1
105 CYP2B6	ENST00000324071	p.L392M	c.1174	0.323787849	9.957	1
105 CYP2B6	ENST00000324071	p.K404E	c.1210	0.064016234	7.084	1
105 CYP2B6	ENST00000324071	p.A407S	c.1219	1.178691592	0	1
105 CYP2B6	ENST00000324071	p.A407T	c.1219	1.178691592	0	1
105 CYP2B6	ENST00000324071	p.L470V	c.1408	0.021990978	6.611	1

105 CYP2B6	ENST00000324071	p.L88P	c.263	0.052668764	6.573	1
106 CYP2A13	ENST00000330436	p.D169N	c.505	0.099569226	7.38	1
106 CYP2A13	ENST00000330436	p.R203C	c.607	2.006003419	0	3
107 PTPRF	ENST00000359947	p.R1725L	c.5174	0.491128071	2.82	1
107 PTPRF	ENST00000359947	p.A1787S	c.5359	1.119463932	6.272	1
107 PTPRF	ENST00000359947	p.A1787V	c.5360	1.119463932	6.272	1
107 PTPRF	ENST00000359947	p.R1788Q	c.5363	1.170907947	0	2
107 PTPRF	ENST00000359947	p.D1789N	c.5365	0.07762196	8.193	1
108 MTPAP	ENST00000358107	p.A204T	c.610	0.009578397	6.706	1
108 MTPAP	ENST00000358107	p.R206W	c.616	0.050101583	4.319	1
108 MTPAP	ENST00000358107	p.V246I	c.736	0.05967998	0	1
109 HBB	ENST00000335295	p.G75C	c.223	0.255430993	2.621	1
109 HBB	ENST00000335295	p.L79M	c.235	0.367166698	2.008	1
109 HBB	ENST00000335295	p.E8D	c.24	0.679029025	0	1
109 HBB	ENST00000335295	p.P126T	c.376	0.428278004	2.579	1
109 HBB	ENST00000335295	p.A129S	c.385	0.108065948	3.896	1
109 HBB	ENST00000335295	p.A14S	c.40	0.235033031	5.046	1
109 HBB	ENST00000335295	p.V135L	c.403	0.015360102	8.353	1
110 RPL5	ENST00000370321	p.G91N	c.271_272	0.081734524	3.663	1
110 RPL5	ENST00000370321	p.A97G	c.290	0.002847691	9.097	1
110 RPL5	ENST00000370321	p.A205V	c.614	0.00535462	7.545	1
110 RPL5	ENST00000370321	p.Y226H	c.676	0.086126198	0	1
111 PYGM	ENST00000164139	p.T484I	c.1451	0.179914864	2.665	1
111 PYGM	ENST00000164139	p.G486S	c.1456	0.044048197	4.716	1
111 PYGM	ENST00000164139	p.R816G	c.2446	0.198282251	0	1
111 PYGM	ENST00000164139	p.Y821H	c.2461	0.018804565	8.609	1
112 TF	ENST00000402696	p.K452N	c.1356	0.140202279	2.847	1
112 TF	ENST00000402696	p.A455S	c.1363	0.009976494	6.835	1
112 TF	ENST00000402696	p.G547E	c.1640	0.147744005	0	1
113 PRSS3	ENST00000361005	p.N146H	c.436	0.043101782	0	1
113 PRSS3	ENST00000361005	p.V175A	c.524	0.010138584	6.624	1
113 PRSS3	ENST00000361005	p.R179H	c.536	0.032963197	4.923	1
114 IGF2R	ENST00000356956	p.D2070E	c.6210	0.025683756	0	1
114 IGF2R	ENST00000356956	p.A2124T	c.6370	0.025683756	5.283	1
115 MAT2B	ENST00000321757	p.A178P	c.532	0.035576482	8.095	1
115 MAT2B	ENST00000321757	p.V179F	c.535	0.018148574	6.784	1
115 MAT2B	ENST00000321757	p.H215Q	c.645	0.098334557	7.787	1
115 MAT2B	ENST00000321757	p.M239I	c.717	0.377734854	3.445	1
115 MAT2B	ENST00000321757	p.P27S	c.79	1.120417923	0	1
115 MAT2B	ENST00000321757	p.P27H	c.80	1.120417923	0	1
115 MAT2B	ENST00000321757	p.R289C	c.865	1.078345181	7.463	1
115 MAT2B	ENST00000321757	p.R289H	c.866	1.078345181	7.463	1
116 ACP1	ENST00000272065	p.A46T	c.136	0.09882364	0	1
116 ACP1	ENST00000272065	p.L14V	c.40	0.09882364	3.339	1
117 PTEN	ENST00000371953	p.Y46H	c.136	0.413699317	9.951	1
117 PTEN	ENST00000371953	p.Y68N	c.202	2.390297278	9.726	1
117 PTEN	ENST00000371953	p.Y68C	c.203	2.390297278	9.726	1
117 PTEN	ENST00000371953	p.L70H	c.209	5.927272214	3.587	1
117 PTEN	ENST00000371953	p.C71Y	c.212	5.122446591	4.072	2

117	PTEN	ENST00000371953	p.F90S	c.269	7.715704853	2.989	1
117	PTEN	ENST00000371953	p.D92H	c.274	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92Y	c.274	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92G	c.275	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92E	c.276	9.329032304	3.545	2
117	PTEN	ENST00000371953	p.H93L	c.278	5.005043401	4.466	1
117	PTEN	ENST00000371953	p.H93R	c.278	5.005043401	4.466	2
117	PTEN	ENST00000371953	p.P95L	c.284	0.867925039	8.029	1
117	PTEN	ENST00000371953	p.P96A	c.286	1.336632939	9.847	1
117	PTEN	ENST00000371953	p.P96T	c.286	1.336632939	9.847	1
117	PTEN	ENST00000371953	p.H123D	c.367	5.644376973	6.646	2
117	PTEN	ENST00000371953	p.H123Y	c.367	5.644376973	6.646	2
117	PTEN	ENST00000371953	p.H123L	c.368	5.644376973	6.646	1
117	PTEN	ENST00000371953	p.C124R	c.370	0.947272395	7.251	1
117	PTEN	ENST00000371953	p.KAGKGRGV125in_frame_del	c.373_399	2.784531773	6.595	1
117	PTEN	ENST00000371953	p.K125N	c.375	2.784531773	6.595	1
117	PTEN	ENST00000371953	p.G127R	c.379	3.87047826	9.287	3
117	PTEN	ENST00000371953	p.G127V	c.380	3.87047826	9.287	1
117	PTEN	ENST00000371953	p.K128Q	c.382	3.399057354	8.882	2
117	PTEN	ENST00000371953	p.K128N	c.384	3.399057354	8.882	1
117	PTEN	ENST00000371953	p.G129E	c.386	3.864313046	7.305	2
117	PTEN	ENST00000371953	p.G129V	c.386	3.864313046	7.305	2
117	PTEN	ENST00000371953	p.R130G	c.388	58.12861928	0	26
117	PTEN	ENST00000371953	p.R130L	c.389	58.12861928	0	5
117	PTEN	ENST00000371953	p.R130P	c.389	58.12861928	0	4
117	PTEN	ENST00000371953	p.R130Q	c.389	58.12861928	0	23
117	PTEN	ENST00000371953	p.T131A	c.391	0.906423223	7.144	1
117	PTEN	ENST00000371953	p.G132D	c.395	1.411028517	9.291	2
117	PTEN	ENST00000371953	p.M134in_frame_del	c.400_402	2.154802888	6.843	1
117	PTEN	ENST00000371953	p.M134I	c.402	2.154802888	6.843	1
117	PTEN	ENST00000371953	p.Y155C	c.464	2.376271263	5.997	1
117	PTEN	ENST00000371953	p.Q171K	c.511	4.784147755	3.96	1
117	PTEN	ENST00000371953	p.H272P	c.815	1.550471222	9.723	1
117	PTEN	ENST00000371953	p.H272R	c.815	1.550471222	9.723	1
117	PTEN	ENST00000371953	p.D326G	c.977	1.394102772	9.083	1
118	PTPN23	ENST00000265562	p.M243I	c.729	0.00675888	7.209	1
118	PTPN23	ENST00000265562	p.A297T	c.889	0.00675888	0	1
119	PARP1	ENST00000366794	p.R847C	c.2539	0.010776257	6.536	1
119	PARP1	ENST00000366794	p.I895T	c.2684	0.010776257	0	1
120	ANPEP	ENST00000300060	p.T88M	c.263	1.078318463	0	2
120	ANPEP	ENST00000300060	p.F182L	c.546	0.198962417	4.646	1
120	ANPEP	ENST00000300060	p.S220F	c.659	0.215774604	6.532	1
120	ANPEP	ENST00000300060	p.L237F	c.709	0.185281553	5.35	1
120	ANPEP	ENST00000300060	p.F282L	c.844	0.248915604	9.299	1
120	ANPEP	ENST00000300060	p.I283V	c.847	0.066591014	9.414	1
121	RAC1	ENST00000356142	p.K135R	c.404	1.729902486	7.256	1
121	RAC1	ENST00000356142	p.K135N	c.405	1.729902486	7.256	1
121	RAC1	ENST00000356142	p.G15S	c.43	0.407839542	8.136	1
121	RAC1	ENST00000356142	p.C18F	c.53	1.691769746	6.084	1

121 RAC1	ENST00000356142	p.C18Y	c.53	1.691769746	6.084	1
121 RAC1	ENST00000356142	p.A178V	c.533	2.532499981	3.817	2
121 RAC1	ENST00000356142	p.P29S	c.85	11.18802702	0	9
121 RAC1	ENST00000356142	p.P29T	c.85	11.18802702	0	1
121 RAC1	ENST00000356142	p.P29L	c.86	11.18802702	0	2
122 MAPK14	ENST00000229795	p.RVAVKK49in_frame_del	c.145_162	0.019290041	6.696	1
122 MAPK14	ENST00000229795	p.V158M	c.472	1.00964502	0	2
123 S100A16	ENST00000368704	p.R73C	c.217	0.012735505	6.295	1
123 S100A16	ENST00000368704	p.K30N	c.90	0.012735505	0	1
124 DUSP9	ENST00000370167	p.D259N	c.775	0.141494473	0	1
124 DUSP9	ENST00000370167	p.N332I	c.995	0.070586045	3.93	1
124 DUSP9	ENST00000370167	p.F333I	c.997	0.080865933	3.72	1
125 GRM1	ENST00000282753	p.W224C	c.672	0.024618287	9.25	1
125 GRM1	ENST00000282753	p.S228F	c.683	0.230508455	3.435	1
125 GRM1	ENST00000282753	p.A229S	c.685	0.141551349	5.614	1
125 GRM1	ENST00000282753	p.A256T	c.766	0.288818337	0	1
125 GRM1	ENST00000282753	p.S258C	c.773	0.154084579	8.832	1
125 GRM1	ENST00000282753	p.R280M	c.839	0.178698728	3.394	1
125 GRM1	ENST00000282753	p.A284D	c.851	0.183340555	3.724	1
125 GRM1	ENST00000282753	p.E311K	c.931	0.019449464	9.59	1
126 SNX7	ENST00000306121	p.A151P	c.451	1.025174028	0	1
126 SNX7	ENST00000306121	p.A151G	c.452	1.025174028	0	1
126 SNX7	ENST00000306121	p.T197A	c.589	0.013696964	7.19	1
126 SNX7	ENST00000306121	p.D203H	c.607	1.018325546	6.77	1
126 SNX7	ENST00000306121	p.D203Y	c.607	1.018325546	6.77	1
127 LRRC4C	ENST00000528697	p.K92N	c.276	0.250208305	3.653	1
127 LRRC4C	ENST00000528697	p.S95I	c.284	0.015304079	7.726	1
127 LRRC4C	ENST00000528697	p.E116K	c.346	2.154804035	0	3
127 LRRC4C	ENST00000528697	p.N141K	c.423	0.033192084	7.206	1
127 LRRC4C	ENST00000528697	p.A143T	c.427	0.197646866	3.97	1
128 OGT	ENST00000373719	p.Y418C	c.1253	0.033137229	6.621	1
128 OGT	ENST00000373719	p.T419M	c.1256	0.275843052	2.925	1
128 OGT	ENST00000373719	p.G528D	c.1583	0.347525148	0	1
128 OGT	ENST00000373719	p.N529K	c.1587	0.200477342	6.235	1
128 OGT	ENST00000373719	p.D533H	c.1597	0.031016091	9.064	1
128 OGT	ENST00000373719	p.M639I	c.1917	0.021889789	6.704	1
128 OGT	ENST00000373719	p.Y642H	c.1924	0.229125262	3.039	1
128 OGT	ENST00000373719	p.A671V	c.2012	0.165597202	4.076	1
129 CRYBB2	ENST00000398215	p.K108N	c.324	0.229234897	3.827	1
129 CRYBB2	ENST00000398215	p.R145Q	c.434	1.076213412	0	1
129 CRYBB2	ENST00000398215	p.R145P	c.434_435	1.076213412	0	1
129 CRYBB2	ENST00000398215	p.T150M	c.449	0.175131212	7.442	1
130 GC	ENST00000504199	p.D396N	c.1186	0.190408188	5.604	1
130 GC	ENST00000504199	p.R69T	c.206	0.360738646	0	1
130 GC	ENST00000504199	p.S73R	c.217	0.040946444	9.588	1
130 GC	ENST00000504199	p.H147P	c.440	0.202058319	2.898	1
130 GC	ENST00000504199	p.S240T	c.718	0.020233525	9.824	1
130 GC	ENST00000504199	p.C285Y	c.854	0.093312793	4.116	1
130 GC	ENST00000504199	p.E286K	c.856	0.333462049	2.926	1

130	GC	ENST00000504199	p.S287F	c.860	0.018186062	6.121	1
131	PDGFRB	ENST00000261799	p.V823I	c.2467	0.077858588	3.683	1
131	PDGFRB	ENST00000261799	p.R849G	c.2545	0.077858588	0	1
132	AGTR1	ENST00000404754	p.I130F	c.388	0.01766454	5.823	1
132	AGTR1	ENST00000404754	p.D237N	c.709	0.01766454	0	1
133	B2M	ENST00000559916	p.V47M	c.139	0.546908006	2.41	1
133	B2M	ENST00000559916	p.H51P	c.152	0.291694227	2.866	1
133	B2M	ENST00000559916	p.D54N	c.160	0.219666436	3.632	1
133	B2M	ENST00000559916	p.A6V	c.17	0.030855348	8.422	1
133	B2M	ENST00000559916	p.SKDWSFY77in_frame_delN	c.230_247	0.071750346	7.762	1
133	B2M	ENST00000559916	p.Y83F	c.248	0.594248946	0	1
133	B2M	ENST00000559916	p.P92A	c.274	0.267574809	5.577	1
133	B2M	ENST00000559916	p.E94K	c.280	0.233524137	5.077	1
133	B2M	ENST00000559916	p.R3C	c.7	0.142273416	6.198	1
133	B2M	ENST00000559916	p.Y30H	c.88	0.340111208	3.101	1
134	PUM1	ENST00000373741	p.V1003A	c.3008	0.006948898	7.169	1
134	PUM1	ENST00000373741	p.A1030V	c.3089	0.006948898	0	1
135	MPO	ENST00000340482	p.E443K	c.1327	0.311872223	5.3	1
135	MPO	ENST00000340482	p.R492Q	c.1475	0.203992502	8.987	1
135	MPO	ENST00000340482	p.D493G	c.1478	0.118304347	9.135	1
135	MPO	ENST00000340482	p.G533S	c.1597	0.163920224	3.853	1
135	MPO	ENST00000340482	p.R543C	c.1627	0.271114308	6.558	1
135	MPO	ENST00000340482	p.E572K	c.1714	0.200688253	9.128	1
135	MPO	ENST00000340482	p.I578V	c.1732	0.24711128	8.746	1
135	MPO	ENST00000340482	p.L579F	c.1735	1.113065976	0	1
135	MPO	ENST00000340482	p.L579P	c.1736	1.113065976	0	1
137	EGFR	ENST00000275493	p.F712L	c.2136	0.449520158	9.933	1
137	EGFR	ENST00000275493	p.G721V	c.2162	0.379436077	6.501	1
137	EGFR	ENST00000275493	p.LRE747in_frame_del	c.2236_2244	1.485753755	3.391	1
137	EGFR	ENST00000275493	p.V769L	c.2305	0.590964287	5.484	1
137	EGFR	ENST00000275493	p.I789M	c.2367	0.607598771	8.024	1
137	EGFR	ENST00000275493	p.T790M	c.2369	1.13102416	7.275	1
137	EGFR	ENST00000275493	p.R831H	c.2492	1.426356714	8.933	1
137	EGFR	ENST00000275493	p.R832C	c.2494	1.804391348	9.841	1
137	EGFR	ENST00000275493	p.R832H	c.2495	1.804391348	9.841	1
137	EGFR	ENST00000275493	p.L833V	c.2497	1.940841816	5.541	1
137	EGFR	ENST00000275493	p.L833F	c.2499	1.940841816	5.541	1
137	EGFR	ENST00000275493	p.A839V	c.2516	0.751626111	9.836	1
137	EGFR	ENST00000275493	p.L858R	c.2573	8.219600976	0	9
137	EGFR	ENST00000275493	p.L861Q	c.2582	4.540138193	6.998	3
137	EGFR	ENST00000275493	p.L861R	c.2582	4.540138193	6.998	1
138	PLG	ENST00000308192	p.P466L	c.1397	0.02090806	8.619	1
138	PLG	ENST00000308192	p.S613F	c.1838	0.139888742	8.111	1
138	PLG	ENST00000308192	p.E625D	c.1875	0.102028326	8.002	1
138	PLG	ENST00000308192	p.R663Q	c.1988	0.426817512	2.637	1
138	PLG	ENST00000308192	p.D665H	c.1993	0.271909232	4.232	1
138	PLG	ENST00000308192	p.V692A	c.2075	0.146198142	5.935	1
138	PLG	ENST00000308192	p.R696Q	c.2087	0.428771832	7.588	1
138	PLG	ENST00000308192	p.P722T	c.2164	0.403209413	4.358	1

138	PLG	ENST00000308192	p.E743K	c.2227	1.47482917	0	2
138	PLG	ENST00000308192	p.G747E	c.2240	0.345906718	7.124	1
138	PLG	ENST00000308192	p.L774F	c.2322	0.04601403	7.893	1
138	PLG	ENST00000308192	p.R795H	c.2384	0.49093529	2.564	1
139	ITGA2B	ENST00000262407	p.P653L	c.1958	0.110261421	3.181	1
139	ITGA2B	ENST00000262407	p.P772Q	c.2315	0.110261421	0	1
140	HSP90AA1	ENST00000334701	p.402in_frame_insK	c.1205_1204	0.399189425	2.415	1
140	HSP90AA1	ENST00000334701	p.E164D	c.492	0.082172331	8.557	1
140	HSP90AA1	ENST00000334701	p.L167V	c.499	0.501547593	0	1
140	HSP90AA1	ENST00000334701	p.S262F	c.785	0.069102419	5.067	1
140	HSP90AA1	ENST00000334701	p.I325T	c.974	0.399339901	2.374	1
140	HSP90AA1	ENST00000334701	p.E327D	c.981	0.112364125	4.904	1
140	HSP90AA1	ENST00000334701	p.S333F	c.998	0.097076397	4.178	1
141	H3F3B	ENST00000587560	p.D107N	c.319	0.055706906	5.166	1
141	H3F3A	ENST00000366813	p.R130H	c.389	1.027853453	0	2
142	PIK3R1	ENST00000274335	p.L466in_frame_del	c.1395_1397	1.607042583	5.78	1
142	PIK3R1	ENST00000274335	p.LYEEY466in_frame_delF	c.1398_1409	1.607042583	5.78	1
142	PIK3R1	ENST00000274335	p.I559V	c.1675	1.283062508	9.027	1
142	PIK3R1	ENST00000274335	p.I559T	c.1676	1.283062508	9.027	1
142	PIK3R1	ENST00000274335	p.MNSIKPDL563in_frame_dell	c.1688_1708	1.274656779	9.236	1
142	PIK3R1	ENST00000274335	p.NSIKPDLIQL564in_frame_del	c.1688_1717	6.043548531	0	1
142	PIK3R1	ENST00000274335	p.MN563in_frame_dell	c.1689_1691	1.274656779	9.236	1
142	PIK3R1	ENST00000274335	p.N564D	c.1690	6.043548531	0	5
142	PIK3R1	ENST00000274335	p.NSIKP564in_frame_delT	c.1691_1702	6.043548531	0	1
143	IL6ST	ENST00000381287	p.K256Q	c.766	0.110797712	4.174	1
143	IL6ST	ENST00000381287	p.S279C	c.836	1.055398856	0	1
143	IL6ST	ENST00000381287	p.S279F	c.836	1.055398856	0	1
144	RHOA	ENST00000418115	p.Y34C	c.101	0.125588329	7.47	1
144	RHOA	ENST00000418115	p.E40Q	c.118	4.138088136	0	5
144	RHOA	ENST00000418115	p.A61V	c.182	0.231287793	4.559	1
144	RHOA	ENST00000418115	p.G62E	c.185	0.142347866	5.261	1
144	RHOA	ENST00000418115	p.Q63K	c.187	0.420712093	3.967	1
145	PRCP	ENST00000393399	p.C385Y	c.1154	0.110114539	4.935	1
145	PRCP	ENST00000393399	p.T386A	c.1156	0.128818121	3.003	1
145	PRCP	ENST00000393399	p.W419C	c.1257	0.098402638	8.739	1
145	PRCP	ENST00000393399	p.R424M	c.1271	0.159770942	0	1
146	MGAM	ENST00000475668	p.D1001N	c.3001	0.273321184	0	1
146	MGAM	ENST00000475668	p.S1004T	c.3010	0.010943549	9.976	1
146	MGAM	ENST00000475668	p.K1022M	c.3065	0.174083048	2.681	1
146	MGAM	ENST00000475668	p.S1023F	c.3068	0.020854686	5.912	1
146	MGAM	ENST00000475668	p.P1091L	c.3272	0.126955298	3.325	1
147	IL12A	ENST00000305579	p.T113P	c.337	0.022235367	5.491	1
147	IL12A	ENST00000305579	p.F172L	c.516	0.004200429	8.546	1
147	IL12A	ENST00000305579	p.R239W	c.715	0.024910822	0	1
148	SI	ENST00000264382	p.P529S	c.1585	2.024770183	0	1
148	SI	ENST00000264382	p.P529L	c.1586	2.024770183	0	2
148	SI	ENST00000264382	p.R91K	c.272	0.028770162	7.105	1
148	SI	ENST00000264382	p.Y226H	c.676	0.069655791	5.836	1
149	EP300	ENST00000263253	p.H1377R	c.4130	0.260094495	6.623	1

149	EP300	ENST00000263253	p.Y1397D	c.4189	0.368315975	7.472	1
149	EP300	ENST00000263253	p.L1398P	c.4193	0.263345414	7.076	1
149	EP300	ENST00000263253	p.D1399N	c.4195	6.468423377	0	6
149	EP300	ENST00000263253	p.D1399Y	c.4195	6.468423377	0	1
149	EP300	ENST00000263253	p.Y1446C	c.4337	1.120758139	3.654	1
149	EP300	ENST00000263253	p.H1451P	c.4352	2.114327543	2.682	1
149	EP300	ENST00000263253	p.H1451R	c.4352	2.114327543	2.682	1
149	EP300	ENST00000263253	p.Q1455H	c.4365	0.209536346	5.273	1
149	EP300	ENST00000263253	p.R1627W	c.4879	1.481693349	6.144	2
150	THRB	ENST00000280696	p.A417V	c.1250	0.11478452	3.123	1
150	THRB	ENST00000280696	p.E233G	c.698	0.11478452	0	1
151	CAND1	ENST00000545606	p.D344Y	c.1030	0.028183606	5.149	1
151	CAND1	ENST00000545606	p.S376P	c.1126	0.008206598	6.929	1
151	CAND1	ENST00000545606	p.L302P	c.905	0.036390204	0	1
152	P4HB	ENST00000331483	p.S168F	c.503	0.270556161	0	1
152	P4HB	ENST00000331483	p.V220A	c.659	0.270556161	1.886	1
153	ITGB4	ENST00000450894	p.D1276G	c.3827	0.022436633	0	1
153	ITGB4	ENST00000450894	p.R1301H	c.3902	0.022436633	5.478	1
154	DDAH1	ENST00000284031	p.F138L	c.414	0.148960322	2.747	1
154	DDAH1	ENST00000284031	p.A162V	c.485	0.148960322	0	1
155	MET	ENST00000318493	p.V378I	c.1132	0.015810206	6.983	1
155	MET	ENST00000318493	p.R412C	c.1234	1.015931677	0	1
155	MET	ENST00000318493	p.R412G	c.1234	1.015931677	0	1
155	MET	ENST00000318493	p.L296P	c.887	0.284801037	6.961	1
156	IDH1	ENST00000415913	p.E190K	c.568	0.017385158	6.846	1
156	IDH1	ENST00000415913	p.Y235N	c.703	1.008692579	0	1
156	IDH1	ENST00000415913	p.Y235C	c.704	1.008692579	0	1
157	SH3KBP1	ENST00000397821	p.N93I	c.278	0.390624335	0	1
157	SH3KBP1	ENST00000397821	p.E130Q	c.388	0.331630253	1.71	1
157	SH3KBP1	ENST00000397821	p.G163D	c.488	0.110934448	3.557	1
158	EBF1	ENST00000313708	p.R129H	c.386	0.0434952	4.523	1
158	EBF1	ENST00000313708	p.N220S	c.659	0.0434952	0	1
159	MLYCD	ENST00000262430	p.R455H	c.1364	0.008813923	7.826	1
159	MLYCD	ENST00000262430	p.A286V	c.857	1.014254644	0	2
159	MLYCD	ENST00000262430	p.V312Y	c.934_935	0.019695365	6.666	1
160	PDE5A	ENST00000354960	p.F564C	c.1691	0.360417761	3.113	1
160	PDE5A	ENST00000354960	p.R607W	c.1819	0.156911727	6.085	1
160	PDE5A	ENST00000354960	p.R777W	c.2329	1.147015864	0	1
160	PDE5A	ENST00000354960	p.R777Q	c.2330	1.147015864	0	1
160	PDE5A	ENST00000354960	p.I821T	c.2462	0.073368434	9.816	1
160	PDE5A	ENST00000354960	p.W853R	c.2557	0.104136943	6.003	1
161	FCER2	ENST00000597921	p.R188Q	c.563	0.161656406	5.943	1
161	FCER2	ENST00000597921	p.Q207L	c.620	0.335785427	4.887	1
161	FCER2	ENST00000597921	p.G218C	c.652	0.248648326	2.463	1
161	FCER2	ENST00000597921	p.D227Y	c.679	0.286320907	2.946	1
161	FCER2	ENST00000597921	p.N244T	c.731	0.293890549	6.735	1
161	FCER2	ENST00000597921	p.R263W	c.787	0.376553497	0	1
161	FCER2	ENST00000597921	p.V281M	c.841	0.075790435	7.386	1
162	SIRPG	ENST00000303415	p.R221C	c.661	3.04064188	0	1

162	SIRPG	ENST00000303415	p.R221H	c.662	3.04064188	0	3
162	SIRPG	ENST00000303415	p.S222F	c.665	0.066466309	9.602	1
162	SIRPG	ENST00000303415	p.A242G	c.725	0.032746405	7.711	1
162	SIRPG	ENST00000303415	p.S245F	c.734	0.168842426	5.384	1
162	SIRPG	ENST00000303415	p.T307I	c.920	0.067768488	6.555	1
163	GMPS	ENST00000496455	p.K535N	c.1605	0.096718261	3.465	1
163	GMPS	ENST00000496455	p.P567L	c.1700	0.158574037	0	1
163	GMPS	ENST00000496455	p.R677Q	c.2030	0.074174529	3.878	1
164	PIK3CA	ENST00000263967	p.D538N	c.1612	0.198044788	9.221	1
164	PIK3CA	ENST00000263967	p.E542K	c.1624	78.03891932	0	73
164	PIK3CA	ENST00000263967	p.E542Q	c.1624	78.03891932	0	1
164	PIK3CA	ENST00000263967	p.E542A	c.1625	78.03891932	0	2
164	PIK3CA	ENST00000263967	p.E542G	c.1625	78.03891932	0	1
164	PIK3CA	ENST00000263967	p.E542V	c.1625	78.03891932	0	2
164	PIK3CA	ENST00000263967	p.R992P	c.2975	0.172004598	9.836	1
164	PIK3CA	ENST00000263967	p.F1016C	c.3047	1.067261781	6.706	1
164	PIK3CA	ENST00000263967	p.D1029H	c.3085	2.203357558	5.234	1
165	MCTS1	ENST00000371315	p.K48I	c.143	0.009361789	6.739	1
165	MCTS1	ENST00000371315	p.V51A	c.152	0.021433333	5.544	1
165	MCTS1	ENST00000371315	p.K27N	c.81	0.030795122	0	1
166	DECR1	ENST00000220764	p.F43L	c.129	1.021418481	0	2
166	DECR1	ENST00000220764	p.M233T	c.698	0.056021584	5.545	1
167	USP13	ENST00000263966	p.L220F	c.658	0.235043551	2.089	1
167	USP13	ENST00000263966	p.K259E	c.775	0.235043551	0	1
168	ACTN4	ENST00000252699	p.L529P	c.1586	0.035599481	4.812	1
168	ACTN4	ENST00000252699	p.H591Y	c.1771	0.056533599	0	1
168	ACTN4	ENST00000252699	p.T615A	c.1843	0.020934119	5.578	1
169	INPPL1	ENST00000541756	p.H359R	c.1076	0.090058109	0	1
169	INPPL1	ENST00000541756	p.V485A	c.1454	0.090058109	3.473	1
170	BCAR3	ENST00000370243	p.F724S	c.2171	0.002989252	8.386	1
170	BCAR3	ENST00000370243	p.E799D	c.2397	0.002989252	0	1
171	IL15	ENST00000529613	p.I69N	c.206	0.048194837	0	1
171	IL15	ENST00000529613	p.D104E	c.312	0.008032139	6.96	1
171	IL15	ENST00000529613	p.I107S	c.320	0.040162698	4.638	1
172	RPL21	ENST00000326092	p.K50Q	c.148	0.001605235	9.283	1
172	RPL21	ENST00000326092	p.F15L	c.45	0.001605235	0	1
173	PIGR	ENST00000356495	p.T147M	c.440	0.083710265	6.817	1
173	PIGR	ENST00000356495	p.V206I	c.616	1.008869079	0	1
173	PIGR	ENST00000356495	p.V206A	c.617	1.008869079	0	1
174	NONO	ENST00000276079	p.R73Q	c.218	0.026334956	9.663	1
174	NONO	ENST00000276079	p.R75C	c.223	1.452599203	0	1
174	NONO	ENST00000276079	p.R75S	c.223	1.452599203	0	1
174	NONO	ENST00000276079	p.M90R	c.269	0.071063899	7.57	1
174	NONO	ENST00000276079	p.E102K	c.304	1.144557576	3.986	2
174	NONO	ENST00000276079	p.H106Y	c.316	1.03264424	6.093	2
174	NONO	ENST00000276079	p.I114L	c.340	0.26562183	3.524	1
174	NONO	ENST00000276079	p.R115H	c.344	0.170813034	4.006	1
174	NONO	ENST00000276079	p.A144V	c.431	0.334638721	2.822	1
175	CYP2A6	ENST00000301141	p.F452L	c.1356	0.247152282	3.652	1

175 CYP2A6	ENST00000301141	p.A153V	c.458	1.202985374	0	2
175 CYP2A6	ENST00000301141	p.G154S	c.460	0.052682617	8.526	1
175 CYP2A6	ENST00000301141	p.F155L	c.463	0.051805496	9.827	1
175 CYP2A6	ENST00000301141	p.K194E	c.580	0.262478054	3.107	1
175 CYP2A6	ENST00000301141	p.V306I	c.916	0.061100016	8.135	1
176 DNMT3L	ENST00000270172	p.D239N	c.715	1.013683247	0	2
176 DNMT3L	ENST00000270172	p.L267P	c.800	0.021918022	8.143	1
176 DNMT3L	ENST00000270172	p.N326S	c.977	0.041782518	6.623	1
177 OPN1SW	ENST00000249389	p.G42D	c.125	0.159209684	0	1
177 OPN1SW	ENST00000249389	p.F92Y	c.275	0.159209684	2.651	1
178 C6	ENST00000263413	p.R841H	c.2522	1.006862738	0	2
178 C6	ENST00000263413	p.C919F	c.2756	0.231213824	7.187	1
179 HTR1B	ENST00000369947	p.A89T	c.265	0.257675479	2.974	1
179 HTR1B	ENST00000369947	p.A92S	c.274	1.053092902	6.346	1
179 HTR1B	ENST00000369947	p.A92V	c.275	1.053092902	6.346	1
179 HTR1B	ENST00000369947	p.R253Q	c.758	1.151859476	0	2
180 KLKB1	ENST00000511608	p.A613T	c.1837	0.151438223	3.83	1
180 KLKB1	ENST00000511608	p.S643T	c.1927	0.383702427	0	1
181 MTERFD1	ENST00000287025	p.K361N	c.1083	0.141209136	0	1
181 MTERFD1	ENST00000287025	p.V391A	c.1172	0.105956862	3.294	1
181 MTERFD1	ENST00000287025	p.S392Y	c.1175	0.043256625	4.671	1
182 CYP11B2	ENST00000323110	p.R123C	c.367	0.007593601	7.041	1
182 CYP11B2	ENST00000323110	p.A226V	c.677	0.021035939	5.571	1
182 CYP11B2	ENST00000323110	p.T234P	c.700	0.023067413	5.438	1
182 CYP11B2	ENST00000323110	p.L237V	c.709	0.00437652	7.836	1
182 CYP11B2	ENST00000323110	p.W260C	c.780	0.056073473	0	1
183 CYP11B2	ENST00000323110	p.R374W	c.1120	0.145782918	8.053	1
183 CYP11B2	ENST00000323110	p.Y423F	c.1268	0.291432864	6.736	1
183 CYP11B2	ENST00000323110	p.R490T	c.1469	0.065854859	7.43	1
183 CYP11B2	ENST00000323110	p.I192M	c.576	0.028596849	7.128	1
183 CYP11B2	ENST00000323110	p.P322S	c.964	3.02609476	0	2
183 CYP11B2	ENST00000323110	p.P322T	c.964	3.02609476	0	1
183 CYP11B2	ENST00000323110	p.P322L	c.965	3.02609476	0	1
184 TNFSF14	ENST00000599359	p.S103C	c.308	0.048092726	5.963	1
184 TNFSF14	ENST00000599359	p.V147L	c.439	0.171566699	7.443	1
184 TNFSF14	ENST00000599359	p.R223C	c.667	2.02177781	0	3
185 MMP13	ENST00000260302	p.F74V	c.220	0.084027187	3.573	1
185 MMP13	ENST00000260302	p.P242R	c.725	0.084027187	0	1
186 GRIA2	ENST00000296526	p.I373L	c.1117	0.141276026	0	1
186 GRIA2	ENST00000296526	p.G134R	c.400	0.009591685	6.704	1
186 GRIA2	ENST00000296526	p.A135V	c.404	0.075006056	3.969	1
186 GRIA2	ENST00000296526	p.L240V	c.718	0.078975387	3.882	1
187 CNTN5	ENST00000524871	p.G908E	c.2723	0.133986051	3.003	1
187 CNTN5	ENST00000524871	p.K927R	c.2780	0.083365367	3.754	1
187 CNTN5	ENST00000524871	p.Y953H	c.2857	0.198859996	0	1
188 GABRB3	ENST00000541819	p.R350Q	c.1049	2.015100466	0	1
188 GABRB3	ENST00000541819	p.E133K	c.397	0.19043198	9.311	1
188 GABRB3	ENST00000541819	p.L221F	c.661	0.134698809	8.47	1
188 GABRB3	ENST00000541819	p.R294W	c.880	2.015100466	0	1

188	GABRB3	ENST00000541819	p.R294L	c.881	2.015100466	0	1
188	GABRB3	ENST00000541819	p.Y307C	c.920	0.016833873	9.184	1
188	GABRB3	ENST00000541819	p.M308V	c.922	0.039198117	6.798	1
189	DCC	ENST00000442544	p.P622Q	c.1865	0.274572673	2.329	1
189	DCC	ENST00000442544	p.G653E	c.1958	0.25083231	2.48	1
189	DCC	ENST00000442544	p.F654C	c.1961	0.099595052	3.925	1
189	DCC	ENST00000442544	p.T656N	c.1967	0.194274997	2.894	1
189	DCC	ENST00000442544	p.T700A	c.2098	0.578631511	0	1
190	KMT2C	ENST00000355193	p.L378V	c.1132	0.561287249	6.812	1
190	KMT2C	ENST00000355193	p.T408M	c.1223	0.485647299	4.809	1
190	KMT2C	ENST00000355193	p.C409R	c.1225	0.518264566	5.602	1
190	KMT2C	ENST00000355193	p.W430C	c.1290	1.069285801	0	2
190	KMT2C	ENST00000355193	p.K431R	c.1292	0.116927955	8.641	1
190	KMT2C	ENST00000355193	p.C432R	c.1294	0.138913167	9.271	1
191	FOLH1	ENST00000256999	p.R181Q	c.542	0.134340155	4.481	1
191	FOLH1	ENST00000256999	p.G206R	c.616	2.044780052	0	3
193	ALDH7A1	ENST00000409134	p.G165E	c.494	0.027164175	6.469	1
193	ALDH7A1	ENST00000409134	p.I190F	c.568	0.029374303	0	1
193	ALDH7A1	ENST00000409134	p.L225F	c.673	0.018085785	5.789	1
194	EGFR	ENST00000275493	p.L38V	c.112	0.051085433	6.568	1
194	EGFR	ENST00000275493	p.E114K	c.340	2.135812001	0	3
194	EGFR	ENST00000275493	p.S116F	c.347	0.060308267	9.387	1
194	EGFR	ENST00000275493	p.V148M	c.442	0.190138688	9.449	1
194	EGFR	ENST00000275493	p.R149W	c.445	0.457076182	3.161	1
194	EGFR	ENST00000275493	p.M178I	c.534	0.266707117	6.567	1
195	NCKAP1	ENST00000360982	p.H1031Y	c.3091	0.084486941	3.833	1
195	NCKAP1	ENST00000360982	p.M1096V	c.3286	0.104036525	0	1
195	NCKAP1	ENST00000360982	p.Y1122H	c.3364	0.036242847	4.884	1
196	GSK3A	ENST00000222330	p.E375D	c.1125	0.226520913	3.188	1
196	GSK3A	ENST00000222330	p.A378T	c.1132	0.135847208	3.957	1
196	GSK3A	ENST00000222330	p.H400L	c.1199	1.174118597	0	1
196	GSK3A	ENST00000222330	p.H400Q	c.1200	1.174118597	0	1
197	C1QC	ENST00000374640	p.F140L	c.420	0.01612005	0	1
197	C1QC	ENST00000374640	p.A172T	c.514	0.01612005	5.955	1
198	TRIM21	ENST00000254436	p.R365M	c.1094	0.067870923	4.114	1
198	TRIM21	ENST00000254436	p.F420in_frame_del	c.1261_1259	0.001301147	9.586	1
198	TRIM21	ENST00000254436	p.R443W	c.1327	0.167570087	0	1
198	TRIM21	ENST00000254436	p.G333D	c.998	0.116166594	3.204	1
199	MUTYH	ENST00000450313	p.R368G	c.1102	0.034445153	0	1
199	MUTYH	ENST00000450313	p.R417C	c.1249	0.026718818	5.226	1
199	MUTYH	ENST00000450313	p.L451P	c.1352	0.007726335	7.016	1
200	EPHB1	ENST00000398015	p.A922T	c.2764	1.012985092	0	2
200	EPHB1	ENST00000398015	p.S968I	c.2903	0.028432104	6.267	1
201	ACE	ENST00000290866	p.Y656H	c.1966	0.026798366	5.857	1
201	ACE	ENST00000290866	p.T697N	c.2090	0.058774539	0	1
201	ACE	ENST00000290866	p.D726N	c.2176	0.05106669	4.59	1
202	MYH7	ENST00000355349	p.A430T	c.1288	0.010387556	6.589	1
202	MYH7	ENST00000355349	p.R434K	c.1301	0.010496121	6.574	1
202	MYH7	ENST00000355349	p.V606M	c.1816	0.020883676	0	1

203 LMO2	ENST00000257818	p.A193V	c.578	0.111453299	3.196	1
203 LMO2	ENST00000257818	p.Q195E	c.583	0.023706339	5.548	1
203 LMO2	ENST00000257818	p.D216N	c.646	0.130494938	0	1
204 EPHB1	ENST00000398015	p.Q715L	c.2144	0.001249009	9.645	1
204 EPHB1	ENST00000398015	p.D848Y	c.2542	0.001249009	0	1
205 SPTA1	ENST00000368147	p.H94Q	c.282	0.076945855	5.279	1
205 SPTA1	ENST00000368147	p.E149G	c.446	1.025755065	0	1
205 SPTA1	ENST00000368147	p.E149D	c.447	1.025755065	0	1
206 IKBKB	ENST00000520810	p.S476Y	c.1427	0.044092805	4.899	1
206 IKBKB	ENST00000520810	p.R526W	c.1576	0.193427193	0	1
206 IKBKB	ENST00000520810	p.E529K	c.1585	0.013591467	9.774	1
206 IKBKB	ENST00000520810	p.D639N	c.1915	0.171284144	2.655	1
207 PLEK	ENST00000234313	p.R335H	c.1004	0.049104532	0	1
207 PLEK	ENST00000234313	p.E312D	c.936	0.049104532	4.348	1
208 KIF15	ENST00000326047	p.S159N	c.476	0.063724855	0	1
208 KIF15	ENST00000326047	p.E245Q	c.733	0.063724855	3.972	1
209 DPP3	ENST00000531863	p.P413L	c.1238	0.088161513	0	1
209 DPP3	ENST00000531863	p.S317F	c.950	0.067742714	3.915	1
209 DPP3	ENST00000531863	p.R318H	c.953	0.023318259	5.515	1
210 TF	ENST00000402696	p.D77N	c.229	0.380502704	2.501	1
210 TF	ENST00000402696	p.P98L	c.293	0.044840216	6.834	1
210 TF	ENST00000402696	p.R132Q	c.395	0.184042674	3.564	1
210 TF	ENST00000402696	p.R273Q	c.818	1.271864236	0	2
210 TF	ENST00000402696	p.E279K	c.835	0.052658291	9.046	1
211 KYNU	ENST00000264170	p.Y448H	c.1342	0.073760896	0	1
211 KYNU	ENST00000264170	p.A30S	c.88	0.073760896	3.761	1
212 GZMA	ENST00000274306	p.P37H	c.110	0.023308896	9.711	1
212 GZMA	ENST00000274306	p.H38N	c.112	0.095050438	7.143	1
212 GZMA	ENST00000274306	p.M43I	c.129	0.360489479	3.639	1
212 GZMA	ENST00000274306	p.V44F	c.130	0.34727683	3.609	1
212 GZMA	ENST00000274306	p.I53F	c.157	0.071671774	7.649	1
212 GZMA	ENST00000274306	p.A55D	c.164	0.111156972	7.715	1
212 GZMA	ENST00000274306	p.L65F	c.195	0.119143993	7.592	1
212 GZMA	ENST00000274306	p.L80I	c.238	2.286341026	0	2
212 GZMA	ENST00000274306	p.L80P	c.239	2.286341026	0	1
212 GZMA	ENST00000274306	p.L120Q	c.359	0.146171368	5.075	1
212 GZMA	ENST00000274306	p.V130L	c.388	0.308583471	3.948	1
212 GZMA	ENST00000274306	p.D211E	c.633	0.208750632	7.274	1
213 NOS2	ENST00000313735	p.V359M	c.1075	0.092141242	5.539	1
213 NOS2	ENST00000313735	p.Q142E	c.424	1.021507744	0	1
213 NOS2	ENST00000313735	p.Q142L	c.425	1.021507744	0	1
214 MBTD1	ENST00000415868	p.T183A	c.547	0.009611651	6.701	1
214 MBTD1	ENST00000415868	p.W193C	c.579	0.088021514	3.506	1
214 MBTD1	ENST00000415868	p.P245T	c.733	0.097633165	0	1
215 ACAD11	ENST00000264990	p.E644K	c.1930	0.004382592	7.834	1
215 ACAD11	ENST00000264990	p.V722I	c.2164	0.004382592	0	1
216 CFI	ENST00000394635	p.V152M	c.454	0.093295903	0	1
216 CFI	ENST00000394635	p.R187Q	c.560	0.0411101024	5.854	1
216 CFI	ENST00000394635	p.G188E	c.563	0.08700631	3.749	1

216 CFI	ENST00000394635	p.D249V	c.746	0.020022264	9.261	1
217 STIM1	ENST00000300737	p.W350L	c.1049	0.008043282	6.958	1
217 STIM1	ENST00000300737	p.K408Q	c.1222	0.008043282	0	1
218 SCIN	ENST00000297029	p.I628F	c.1882	0.145132901	0	1
218 SCIN	ENST00000297029	p.S670F	c.2009	0.032488503	5.091	1
218 SCIN	ENST00000297029	p.K672T	c.2015	0.00847248	6.883	1
218 SCIN	ENST00000297029	p.S673F	c.2018	0.110469441	3.22	1
219 ALK	ENST00000389048	p.S1324F	c.3971	0.026904662	0	1
219 ALK	ENST00000389048	p.K1352N	c.4056	0.026904662	5.216	1
220 CD4	ENST00000011653	p.H52Y	c.154	0.185906638	2.632	1
220 CD4	ENST00000011653	p.S56F	c.167	0.191581771	2.714	1
220 CD4	ENST00000011653	p.T106A	c.316	0.315771749	0	1
220 CD4	ENST00000011653	p.E117in_frame_del	c.344_346	0.102933753	8.934	1
221 ADAM22	ENST00000315984	p.R385I	c.1154	0.181361213	3.318	1
221 ADAM22	ENST00000315984	p.W558R	c.1672	0.260115895	0	1
221 ADAM22	ENST00000315984	p.P612L	c.1834_1835	0.173071819	3.435	1
221 ADAM22	ENST00000315984	p.E616K	c.1846	0.013284446	7.351	1
221 ADAM22	ENST00000315984	p.G638R	c.1912	0.080221521	4.029	1
222 ITGB2	ENST00000397850	p.Y137C	c.410	0.156921803	5.442	1
222 ITGB2	ENST00000397850	p.P192H	c.575	0.108814258	8.699	1
222 ITGB2	ENST00000397850	p.E234Q	c.700	0.341533914	0	1
222 ITGB2	ENST00000397850	p.D264Y	c.790	0.053090799	5.244	1
222 ITGB2	ENST00000397850	p.D265Y	c.793	0.200338375	2.589	1
222 ITGB2	ENST00000397850	p.D300H	c.898	0.150169012	3.017	1
223 ERBB4	ENST00000342788	p.E806D	c.2418	0.038394516	6.958	1
223 ERBB4	ENST00000342788	p.E810K	c.2428	0.134267043	4.225	1
223 ERBB4	ENST00000342788	p.F916Y	c.2747	0.093013862	9.905	1
223 ERBB4	ENST00000342788	p.R979G	c.2935	1.062561004	0	1
223 ERBB4	ENST00000342788	p.R979Q	c.2936	1.062561004	0	1
225 F5	ENST00000367796	p.T340A	c.1018	0.01407624	9.94	1
225 F5	ENST00000367796	p.R341C	c.1021	1.087544585	0	1
225 F5	ENST00000367796	p.R341H	c.1022	1.087544585	0	1
225 F5	ENST00000367796	p.Y455H	c.1363	0.209688021	3.564	1
225 F5	ENST00000367796	p.Y483N	c.1447	0.306096247	8.985	1
226 PLA2G4A	ENST00000367466	p.I429T	c.1286	0.081345797	0	1
226 PLA2G4A	ENST00000367466	p.G484V	c.1451	0.073341891	4.186	1
226 PLA2G4A	ENST00000367466	p.H546Y	c.1636	0.052593214	5.243	1
227 VPRES1	ENST00000403807	p.T42I	c.125	0.041613939	7.889	1
227 VPRES1	ENST00000403807	p.S53C	c.157	0.218920337	0	1
227 VPRES1	ENST00000403807	p.S78N	c.233	0.017611296	7.213	1
227 VPRES1	ENST00000403807	p.M117I	c.351	0.160941867	3.148	1
227 VPRES1	ENST00000403807	p.A119D	c.356_357	0.077010367	4.002	1
227 VPRES1	ENST00000403807	p.R120H	c.359	0.043829949	4.933	1
228 PGLYRP3	ENST00000290722	p.I207T	c.620	0.177971353	0	1
228 PGLYRP3	ENST00000290722	p.H264Y	c.790	0.091159247	3.586	1
228 PGLYRP3	ENST00000290722	p.G315S	c.943	0.046310789	5.829	1
228 PGLYRP3	ENST00000290722	p.P325S	c.973	0.084884039	3.697	1
229 FCER1A	ENST00000368115	p.E45D	c.135	1.094068557	0	2
229 FCER1A	ENST00000368115	p.G53E	c.158	0.048099973	9.581	1

229	FCER1A	ENST00000368115	p.G134C	c.400	1.058598194	5.093	1
229	FCER1A	ENST00000368115	p.G134S	c.400	1.058598194	5.093	1
229	FCER1A	ENST00000368115	p.R136S	c.408	0.23053433	4.997	1
229	FCER1A	ENST00000368115	p.E157K	c.469	0.184753298	8.455	1
230	MYO5A	ENST00000358212	p.R1588G	c.4762	0.013555292	6.205	1
230	MYO5A	ENST00000358212	p.T1607A	c.4819	0.020703235	5.594	1
230	MYO5A	ENST00000358212	p.S1860F	c.5579	0.034258527	0	1
231	SERPINI1	ENST00000446050	p.L389I	c.1165	0.349884205	0	1
231	SERPINI1	ENST00000446050	p.F48L	c.144	0.144473855	4.045	1
231	SERPINI1	ENST00000446050	p.M96I	c.288	0.107031751	3.554	1
231	SERPINI1	ENST00000446050	p.M106T	c.317	0.293700409	2.57	1
231	SERPINI1	ENST00000446050	p.V184F	c.550	0.137669468	5.152	1
231	SERPINI1	ENST00000446050	p.K187N	c.561	0.055386296	7.636	1
231	SERPINI1	ENST00000446050	p.I301N	c.902	0.045621392	8.584	1
232	AGO1	ENST00000373204	p.G443V	c.1328	0.047450625	4.642	1
232	AGO1	ENST00000373204	p.I444T	c.1331	0.130605728	3.11	1
232	AGO1	ENST00000373204	p.I446M	c.1338	0.080945138	3.859	1
232	AGO1	ENST00000373204	p.M481I	c.1443	0.244953565	0	1
232	AGO1	ENST00000373204	p.L563F	c.1687	0.120790246	5.744	1
232	AGO1	ENST00000373204	p.R790L	c.2369	0.083512177	9.378	1
233	ERP27	ENST00000266397	p.A36V	c.107	0.059250441	4.209	1
233	ERP27	ENST00000266397	p.P47S	c.139	0.007905103	6.983	1
233	ERP27	ENST00000266397	p.M50V	c.148	0.028365145	7.444	1
233	ERP27	ENST00000266397	p.Q80R	c.239	0.067719066	0	1
234	TLR4	ENST00000355622	p.S352Y	c.1055	0.08241792	3.766	1
234	TLR4	ENST00000355622	p.L353F	c.1057	0.136953919	3.044	1
234	TLR4	ENST00000355622	p.S374R	c.1122	0.194750942	0	1
235	IL2	ENST00000226730	p.E80G	c.239	0.0434952	5.523	1
235	IL2	ENST00000226730	p.V111L	c.331	1.0217476	0	1
235	IL2	ENST00000226730	p.V111A	c.332	1.0217476	0	1
236	GRIK1	ENST00000327783	p.S545Y	c.1634	0.083331167	0	1
236	GRIK1	ENST00000327783	p.G780R	c.2338	0.083331167	3.585	1
237	CASK	ENST00000318588	p.R489W	c.1465	0.042955897	0	1
237	CASK	ENST00000318588	p.E550K	c.1648	0.042955897	4.541	1
238	SH3GL3	ENST00000324537	p.L139I	c.415	0.003988329	0	1
238	SH3GL3	ENST00000324537	p.Q236L	c.707	0.003988329	7.97	1
239	PBRM1	ENST00000296302	p.R522L	c.1565	0.396447426	4.952	1
239	PBRM1	ENST00000296302	p.M523R	c.1568	0.522158612	3.27	1
239	PBRM1	ENST00000296302	p.I575N	c.1724	0.078506101	7.474	1
239	PBRM1	ENST00000296302	p.Y580C	c.1739	0.089261614	7.281	1
239	PBRM1	ENST00000296302	p.E583K	c.1747	0.278465337	7.029	1
239	PBRM1	ENST00000296302	p.M586K	c.1757	2.191147673	0	1
239	PBRM1	ENST00000296302	p.M586T	c.1757	2.191147673	0	1
239	PBRM1	ENST00000296302	p.M586I	c.1758	2.191147673	0	1
239	PBRM1	ENST00000296302	p.L618H	c.1853	0.102014558	5.015	1
239	PBRM1	ENST00000296302	p.G626V	c.1877	0.181783125	7.784	1
240	MARK2	ENST00000402010	p.F194C	c.581	0.007325229	7.725	1
240	MARK2	ENST00000402010	p.S197N	c.590	0.006492546	7.267	1
240	MARK2	ENST00000402010	p.L206P	c.617	0.002518883	8.633	1

240	MARK2	ENST00000402010	p.D232N	c.694	0.013737969	0	1
241	DEPDC1	ENST00000456315	p.H83R	c.248	0.161768207	0	1
241	DEPDC1	ENST00000456315	p.P107L	c.320	0.161768207	2.628	1
242	IL17RA	ENST00000319363	p.P73L	c.218	0.01552783	7.009	1
242	IL17RA	ENST00000319363	p.C126S	c.376	0.024348893	6.36	1
242	IL17RA	ENST00000319363	p.T160A	c.478	1.019938361	0	1
242	IL17RA	ENST00000319363	p.T160I	c.479	1.019938361	0	1
243	EDA	ENST00000374552	p.R357L	c.1070	0.004842608	0	1
243	EDA	ENST00000374552	p.E292K	c.874	0.004842608	7.69	1
244	CRYBA4	ENST00000354760	p.V150G	c.449	0.05840085	4.3	1
244	CRYBA4	ENST00000354760	p.C151Y	c.452	0.093569431	3.578	1
244	CRYBA4	ENST00000354760	p.P155S	c.463	0.075627748	3.907	1
244	CRYBA4	ENST00000354760	p.S190N	c.569	0.201163861	0	1
245	FLT3	ENST00000380982	p.D362N	c.1084	0.047102835	5.695	1
245	FLT3	ENST00000380982	p.Y457C	c.1370	0.305975614	3.49	1
245	FLT3	ENST00000380982	p.N518D	c.1552	0.134936002	6.616	1
245	FLT3	ENST00000380982	p.L520I	c.1558	1.118501514	0	1
245	FLT3	ENST00000380982	p.L520V	c.1558	1.118501514	0	1
246	ALDOC	ENST00000226253	p.T206K	c.617	0.010991223	8.267	1
246	ALDOC	ENST00000226253	p.V209A	c.626	0.002577164	9.6	1
246	ALDOC	ENST00000226253	p.E225K	c.673	0.324851626	2.765	1
246	ALDOC	ENST00000226253	p.R258H	c.773	0.154494785	8.256	1
246	ALDOC	ENST00000226253	p.R259H	c.776	1.157956605	0	2
246	ALDOC	ENST00000226253	p.P293L	c.878	0.133861089	8.363	1
247	CFH	ENST00000367429	p.S994I	c.2981	0.012577596	6.313	1
247	CFH	ENST00000367429	p.E1175D	c.3525	0.075580794	0	1
247	CFH	ENST00000367429	p.R1203W	c.3607	0.016288528	5.94	1
247	CFH	ENST00000367429	p.R1206C	c.3616	0.016086564	5.958	1
247	CFH	ENST00000367429	p.L1207I	c.3619	0.030628107	5.029	1
248	VRK2	ENST00000340157	p.E73Q	c.217	0.105770179	3.318	1
248	VRK2	ENST00000340157	p.P101A	c.301	0.017306282	6.404	1
248	VRK2	ENST00000340157	p.D186H	c.556	0.112081395	0	1
249	NXF1	ENST00000532297	p.R342C	c.1024	0.018612779	5.87	1
249	NXF1	ENST00000532297	p.E210K	c.628	0.105670676	0	1
249	NXF1	ENST00000532297	p.P236Q	c.707	0.090086777	3.497	1
250	SKP2	ENST00000274255	p.A162S	c.484	0.081086403	4.718	1
250	SKP2	ENST00000274255	p.R182C	c.544	1.131096556	6.173	2
250	SKP2	ENST00000274255	p.V183I	c.547	1.199779439	0	1
250	SKP2	ENST00000274255	p.V183A	c.548	1.199779439	0	1
250	SKP2	ENST00000274255	p.S212I	c.635	0.479978944	2.899	1
251	CDKN2C	ENST00000371761	p.R39T	c.116	0.244876218	4.165	1
251	CDKN2C	ENST00000371761	p.D64N	c.190	0.050994492	6.922	1
251	CDKN2C	ENST00000371761	p.K66E	c.196	0.266845778	0	1
251	CDKN2C	ENST00000371761	p.D67N	c.199	0.20189462	6.652	1
251	CDKN2C	ENST00000371761	p.E99K	c.295	0.259985969	2.374	1
252	CDK12	ENST00000447079	p.G923V	c.2768	0.067868204	7.203	1
252	CDK12	ENST00000447079	p.F986S	c.2957	1.006787048	0	1
252	CDK12	ENST00000447079	p.F986L	c.2958	1.006787048	0	1
253	IGF2R	ENST00000356956	p.E1544G	c.4631	0.03530901	0	1

253	IGF2R	ENST00000356956	p.A1923V	c.5768	0.025365299	5.301	1
253	IGF2R	ENST00000356956	p.Y1933C	c.5798	0.00994371	6.652	1
254	TMPRSS15	ENST00000284885	p.P797S	c.2389	0.103639863	3.381	1
254	TMPRSS15	ENST00000284885	p.L843Q	c.2528	0.033052209	5.299	1
254	TMPRSS15	ENST00000284885	p.Y891C	c.2672	0.121388629	0	1
255	BCKDHB	ENST00000356489	p.S358L	c.1073	0.019157697	0	1
255	BCKDHB	ENST00000356489	p.K381Q	c.1141	0.009485898	6.72	1
255	BCKDHB	ENST00000356489	p.R324Q	c.971	0.009671799	6.692	1
256	INHBA	ENST00000442711	p.C350R	c.1048	0.120103478	6.389	1
256	INHBA	ENST00000442711	p.K395R	c.1184	0.318511109	2.5	1
256	INHBA	ENST00000442711	p.N417S	c.1250	0.037753242	7.972	1
256	INHBA	ENST00000442711	p.V420M	c.1258	0.204155098	6.007	1
256	INHBA	ENST00000442711	p.E421K	c.1261	0.328732263	0	1
256	INHBA	ENST00000442711	p.G311D	c.932	0.145102551	3.053	1
257	GRM1	ENST00000282753	p.F354L	c.1062	0.057437484	6.43	1
257	GRM1	ENST00000282753	p.K409M	c.1226	0.085949667	3.557	1
257	GRM1	ENST00000282753	p.R78S	c.234	0.096562106	0	1
258	NFKBIA	ENST00000216797	p.Q249H	c.747	0.003809982	8.036	1
258	NFKBIA	ENST00000216797	p.S293T	c.877	0.003809982	0	1
259	TEK	ENST00000380036	p.R915C	c.2743	0.0336132	8.87	1
259	TEK	ENST00000380036	p.R1003C	c.3007	0.182251378	0	1
259	TEK	ENST00000380036	p.P1038S	c.3112	0.177091565	2.692	1
259	TEK	ENST00000380036	p.D1117H	c.3349	0.05156125	5.301	1
260	MSH6	ENST00000234420	p.A1206E	c.3617	0.011351289	6.461	1
260	MSH6	ENST00000234420	p.T1238A	c.3712	0.011351289	0	1
261	GPI	ENST00000588991	p.Y378H	c.1132	0.144219037	0	1
261	GPI	ENST00000588991	p.H411Y	c.1231	0.035045848	5.634	1
261	GPI	ENST00000588991	p.Q412H	c.1236	0.118977697	3.1	1
261	GPI	ENST00000588991	p.A17T	c.49	0.025501024	7.068	1
262	TBK1	ENST00000331710	p.P90S	c.268	0.035896824	5.8	1
262	TBK1	ENST00000331710	p.R25C	c.73	1.017948412	0	2
263	UPF1	ENST00000599848	p.A382V	c.1145	0.035540664	5.3	1
263	UPF1	ENST00000599848	p.R473C	c.1417	0.142604121	3.028	1
263	UPF1	ENST00000599848	p.S774F	c.2321	0.107727579	7.124	1
263	UPF1	ENST00000599848	p.R811H	c.2432	0.14258504	9.049	1
263	UPF1	ENST00000599848	p.L814M	c.2440	0.157037227	0	1
264	PAPSS1	ENST00000265174	p.R397C	c.1189	0.027015725	8.497	1
264	PAPSS1	ENST00000265174	p.H452L	c.1355	0.281856156	0	1
264	PAPSS1	ENST00000265174	p.A489T	c.1465	0.157225313	3.131	1
264	PAPSS1	ENST00000265174	p.R510W	c.1528	0.183766181	2.6	1
265	CASP1	ENST00000598974	p.M386I	c.1158	0.034267862	0	1
265	CASP1	ENST00000598974	p.C331W	c.993	0.034267862	4.867	1
266	AIMP1	ENST00000442366	p.G182R	c.544	0.084846561	3.559	1
266	AIMP1	ENST00000442366	p.P247S	c.739	0.084846561	0	1
267	F13A1	ENST00000264870	p.D358Y	c.1072	0.201749741	7.834	1
267	F13A1	ENST00000264870	p.T67N	c.200	0.074793582	7.654	1
267	F13A1	ENST00000264870	p.R78C	c.232	1.430076127	0	1
267	F13A1	ENST00000264870	p.R78L	c.233	1.430076127	0	1
267	F13A1	ENST00000264870	p.R79K	c.236	0.299436946	6.162	1

267 F13A1	ENST00000264870	p.R108C	c.322	0.299268164	7.478	1
267 F13A1	ENST00000264870	p.R144W	c.430	1.110368074	8.819	1
267 F13A1	ENST00000264870	p.R144Q	c.431	1.110368074	8.819	1
267 F13A1	ENST00000264870	p.S150F	c.449	0.420027768	2.773	1
267 F13A1	ENST00000264870	p.L184F	c.550	0.651275266	3.268	1
267 F13A1	ENST00000264870	p.P187S	c.559	0.374782983	3.98	1
267 F13A1	ENST00000264870	p.A269V	c.806	0.125197868	8.124	1
267 F13A1	ENST00000264870	p.G330K	c.989_988	0.425802315	3.65	1
268 CASQ1	ENST00000368078	p.L170P	c.509	0.022742745	6.389	1
268 CASQ1	ENST00000368078	p.A172V	c.515	0.135526998	3.164	1
268 CASQ1	ENST00000368078	p.E174Q	c.520	0.020333106	6.564	1
268 CASQ1	ENST00000368078	p.P209T	c.625	0.018289745	7.045	1
268 CASQ1	ENST00000368078	p.D293N	c.877	0.046492928	8.707	1
268 CASQ1	ENST00000368078	p.P294F	c.880_881	0.144035183	0	1
269 AKR1B10	ENST00000359579	p.S163R	c.489	0.05230164	0	1
269 AKR1B10	ENST00000359579	p.L196R	c.587	0.05230164	4.257	1
270 DCC	ENST00000442544	p.Q559K	c.1675	0.664106033	2.246	1
270 DCC	ENST00000442544	p.N602S	c.1805	0.344728235	4.29	1
270 DCC	ENST00000442544	p.R603C	c.1807	1.261926656	0	2
271 SERPINB3	ENST00000283752	p.H367D	c.1099	0.338091088	3.573	1
271 SERPINB3	ENST00000283752	p.L57P	c.170	0.105366503	6.973	1
271 SERPINB3	ENST00000283752	p.F200L	c.600	0.352225726	6.639	1
271 SERPINB3	ENST00000283752	p.M212I	c.636	0.196743194	9.874	1
271 SERPINB3	ENST00000283752	p.E250K	c.748	1.104067312	0	2
271 SERPINB3	ENST00000283752	p.L254F	c.760	0.035911179	9.994	1
272 NTRK3	ENST00000360948	p.G356R	c.1066	1.022949256	0	1
272 NTRK3	ENST00000360948	p.G356E	c.1067	1.022949256	0	1
272 NTRK3	ENST00000360948	p.E357D	c.1071	0.130175251	8.948	1
272 NTRK3	ENST00000360948	p.R326L	c.977	0.185711615	5.918	1
272 NTRK3	ENST00000360948	p.T332M	c.995	0.015381875	7.833	1
273 AOC1	ENST00000416793	p.S351I	c.1052	0.02066821	6.337	1
273 AOC1	ENST00000416793	p.D466N	c.1396	0.007139308	7.13	1
273 AOC1	ENST00000416793	p.M475I	c.1425	0.06482183	4.145	1
273 AOC1	ENST00000416793	p.F713Y	c.2138	0.076033111	0	1
274 ADH1B	ENST00000305046	p.G78R	c.232	0.0217338	5.78	1
274 ADH1B	ENST00000305046	p.P92S	c.274	0.176856096	5.732	1
274 ADH1B	ENST00000305046	p.L124P	c.371	0.087506771	3.723	1
274 ADH1B	ENST00000305046	p.Q125K	c.373	0.133180384	3.077	1
274 ADH1B	ENST00000305046	p.R130S	c.390	0.022572164	6.492	1
274 ADH1B	ENST00000305046	p.D154Y	c.460	0.244558454	0	1
274 ADH1B	ENST00000305046	p.K324R	c.971	0.122591307	8.827	1
275 ECHS1	ENST00000368547	p.E77K	c.229	0.009381277	7.736	1
275 ECHS1	ENST00000368547	p.A238E	c.713	1.004690638	0	1
275 ECHS1	ENST00000368547	p.A238V	c.713	1.004690638	0	1
276 AKR1C2	ENST00000380753	p.H194D	c.580	0.028596849	5.128	1
276 AKR1C2	ENST00000380753	p.R304Q	c.911	0.028596849	0	1
277 SACS	ENST00000382292	p.F4458L	c.13374	0.009080579	6.783	1
277 SACS	ENST00000382292	p.L4479I	c.13435	0.082688253	0	1
277 SACS	ENST00000382292	p.Y4538H	c.13612	0.073607674	3.764	1

278 NAALAD2	ENST00000534061	p.G519E	c.1556	0.016538819	5.918	1
278 NAALAD2	ENST00000534061	p.A664T	c.1990	0.016538819	0	1
279 NR3C1	ENST00000231509	p.M605I	c.1815	0.13741267	9.728	1
279 NR3C1	ENST00000231509	p.T669P	c.2005	0.133281622	6.392	1
279 NR3C1	ENST00000231509	p.S725Y	c.2174	1.023260344	0	2
279 NR3C1	ENST00000231509	p.L773P	c.2318	0.040101127	6.619	1
280 ATP7B	ENST00000242839	p.T1092M	c.3275	0.20661258	2.275	1
280 ATP7B	ENST00000242839	p.P1119H	c.3356	0.20661258	0	1
281 ECE1	ENST00000374893	p.F237in_frame_del	c.712_710	0.01127288	6.471	1
281 ECE1	ENST00000374893	p.L314P	c.941	0.01127288	0	1
282 GAD1	ENST00000358196	p.R134C	c.400	1.076181515	0	2
282 GAD1	ENST00000358196	p.V138L	c.412	0.284731153	7.816	1
282 GAD1	ENST00000358196	p.R186Q	c.557	0.218578148	3.801	1
283 PPARD	ENST00000360694	p.Y108C	c.323	0.018517075	0	1
283 PPARD	ENST00000360694	p.R129H	c.386	0.018517075	5.755	1
284 ADH4	ENST00000508393	p.D368V	c.1103	0.081005455	3.652	1
284 ADH4	ENST00000508393	p.A62D	c.185	0.019755931	5.772	1
284 ADH4	ENST00000508393	p.R193K	c.578	0.097849843	0	1
285 CAMK1	ENST00000256460	p.G214S	c.640	0.119493165	0	1
285 CAMK1	ENST00000256460	p.Q293H	c.879	0.119493165	3.065	1
286 ATAD2B	ENST00000238789	p.R347I	c.1040	0.081265962	4.291	1
286 ATAD2B	ENST00000238789	p.R355G	c.1063	0.051204585	6.565	1
286 ATAD2B	ENST00000238789	p.G247R	c.739	0.193130679	2.872	1
286 ATAD2B	ENST00000238789	p.D293V	c.878	0.074046317	8.306	1
286 ATAD2B	ENST00000238789	p.R294Q	c.881	0.204814566	0	1
286 ATAD2B	ENST00000238789	p.P299S	c.895	0.043043375	8.195	1
287 FAP	ENST00000188790	p.I47N	c.140	0.014947002	7.064	1
287 FAP	ENST00000188790	p.W623S	c.1868	0.090234501	6.111	1
287 FAP	ENST00000188790	p.T741K	c.2222	1.021941408	0	2
288 PGD	ENST00000270776	p.F123V	c.367	0.007124478	7.133	1
288 PGD	ENST00000270776	p.E148Q	c.442	0.007124478	0	1
289 ACAT1	ENST00000265838	p.V45L	c.133	0.038181034	0	1
289 ACAT1	ENST00000265838	p.A301V	c.902	0.038181034	4.711	1
290 SENP1	ENST00000549518	p.F519L	c.1557	0.077428044	0	1
290 SENP1	ENST00000549518	p.F579S	c.1736	0.077428044	3.691	1
291 FGA	ENST00000302053	p.L728S	c.2183	0.329857548	3.905	1
291 FGA	ENST00000302053	p.A762V	c.2285	0.389918906	7.67	1
291 FGA	ENST00000302053	p.A855D	c.2564	2.073435567	0	2
291 FGA	ENST00000302053	p.A855V	c.2564	2.073435567	0	1
291 FGA	ENST00000302053	p.R857C	c.2569	0.03379984	9.141	1
292 DOCK2	ENST00000256935	p.D1519N	c.4555	0.0795739	9.632	1
292 DOCK2	ENST00000256935	p.L1527H	c.4580	1.113048481	0	2
292 DOCK2	ENST00000256935	p.L1531P	c.4592	0.102622704	7.958	1
292 DOCK2	ENST00000256935	p.F1579L	c.4737	0.066314916	7.845	1
292 DOCK2	ENST00000256935	p.H1587N	c.4759	0.197759788	3.88	1
292 DOCK2	ENST00000256935	p.E1588K	c.4762	0.034722593	6.248	1
292 DOCK2	ENST00000256935	p.R1590G	c.4768	0.116810127	5.934	1
292 DOCK2	ENST00000256935	p.V1591E	c.4772	0.011965297	7.385	1
293 PLAU	ENST00000372764	p.M334I	c.1002	0.199732399	4.119	1

293	PLAU	ENST00000372764	p.I340M	c.1020	0.34789413	7.198	1
293	PLAU	ENST00000372764	p.A362V	c.1085	0.639408576	4.713	1
293	PLAU	ENST00000372764	p.D364G	c.1091	0.402111106	6.014	1
293	PLAU	ENST00000372764	p.V408I	c.1222	1.183025852	8.137	2
293	PLAU	ENST00000372764	p.R411T	c.1232	0.205447117	9.028	1
293	PLAU	ENST00000372764	p.P417L	c.1250	0.174223116	8.142	1
293	PLAU	ENST00000372764	p.P216R	c.647	0.595741584	1.884	1
293	PLAU	ENST00000372764	p.R282L	c.845	0.213177054	7.472	1
293	PLAU	ENST00000372764	p.A289V	c.866	1.408363284	0	2
293	PLAU	ENST00000372764	p.K333N	c.999	0.094428326	9.616	1
294	GRIK2	ENST00000421544	p.V514F	c.1540	1.019981106	0	2
294	GRIK2	ENST00000421544	p.F533V	c.1597	0.095229712	9.295	1
294	GRIK2	ENST00000421544	p.G765A	c.2294	0.186609031	5.765	1
295	ITK	ENST00000422843	p.E362K	c.1084	0.063980755	4.367	1
295	ITK	ENST00000422843	p.K385E	c.1153	0.069107988	0	1
295	ITK	ENST00000422843	p.L460Q	c.1379	0.021646456	5.598	1
296	EPHA5	ENST00000273854	p.M868I	c.2604	0.072242919	3.791	1
296	EPHA5	ENST00000273854	p.M911I	c.2733	0.072242919	0	1
297	PPARG	ENST00000287820	p.G372S	c.1114	1.113665294	0	2
297	PPARG	ENST00000287820	p.E397G	c.1190	0.082076425	9.818	1
297	PPARG	ENST00000287820	p.K432T	c.1295	0.02131481	6.552	1
297	PPARG	ENST00000287820	p.T468A	c.1402	0.11333255	8.391	1
297	PPARG	ENST00000287820	p.D228Y	c.682	0.045925025	5.476	1
297	PPARG	ENST00000287820	p.I277N	c.830	0.144572507	5.925	1
297	PPARG	ENST00000287820	p.I290M	c.870	0.331471133	4.505	1
297	PPARG	ENST00000287820	p.R316C	c.946	0.263360042	5.97	1
298	CDKN2A	ENST00000361570	p.D109H	c.325	0.843299045	9.633	1
298	CDKN2A	ENST00000361570	p.D109in_frame_del	c.328_326	2.182287415	4.832	1
298	CDKN2A	ENST00000361570	p.A138V	c.413	9.313584339	0	4
298	CDKN2A	ENST00000361570	p.R139G	c.415	9.313584339	0	1
298	CDKN2A	ENST00000361570	p.R139Q	c.416	3.524810784	6.472	2
298	CDKN2A	ENST00000361570	p.G143K	c.428_427	1.874759582	6.756	2
298	CDKN2A	ENST00000361570	p.R163Q	c.488	8.29796535	2.061	2
298	CDKN2A	ENST00000361570	p.R163L	c.488	8.29796535	2.061	3
298	CDKN2A	ENST00000361570	p.G173A	c.518	0.132377231	9.933	1
299	RUNX1	ENST00000300305	p.P113S	c.337	1.99354314	2.421	1
299	RUNX1	ENST00000300305	p.P113L	c.338	1.99354314	2.421	1
299	RUNX1	ENST00000300305	p.V118A	c.353	0.10171235	9.321	1
299	RUNX1	ENST00000300305	p.A134P	c.400	0.095722634	7.278	1
299	RUNX1	ENST00000300305	p.D160G	c.479	0.109494128	7.171	1
299	RUNX1	ENST00000300305	p.L161P	c.482	0.607115261	4.747	1
299	RUNX1	ENST00000300305	p.R162G	c.484	3.425639453	0	2
299	RUNX1	ENST00000300305	p.R162K	c.485	3.425639453	0	1
299	RUNX1	ENST00000300305	p.R162S	c.486	3.425639453	0	1
300	QPCT	ENST00000338415	p.D340N	c.1018	0.057209292	4.68	1
300	QPCT	ENST00000338415	p.W66L	c.197	0.05955631	0	1
300	QPCT	ENST00000338415	p.V162M	c.484	0.020545981	5.605	1
301	UBE2V1	ENST00000371677	p.P103T	c.307	0.023421948	5.724	1
301	UBE2V1	ENST00000371677	p.F104V	c.310	0.006412044	7.285	1

301	UBE2V1	ENST00000371677	p.S137L	c.410	0.025331311	0	1
302	MGAM	ENST00000475668	p.L372F	c.1114	0.250779371	6.614	1
302	MGAM	ENST00000475668	p.Y375N	c.1123	0.503411807	3.244	1
302	MGAM	ENST00000475668	p.R606T	c.1817	0.428704499	5.378	1
302	MGAM	ENST00000475668	p.Y722H	c.2164	0.030367507	9.442	1
302	MGAM	ENST00000475668	p.R834Q	c.2501	3.283839388	0	4
302	MGAM	ENST00000475668	p.D857N	c.2569	0.827345731	2.81	1
303	ITGA4	ENST00000397033	p.S426L	c.1277	1.157495617	0	2
303	ITGA4	ENST00000397033	p.S428T	c.1283	0.285586307	6.57	1
303	ITGA4	ENST00000397033	p.R454W	c.1360	0.182969699	5.78	1
303	ITGA4	ENST00000397033	p.S455Y	c.1364	0.327963835	3.238	1
303	ITGA4	ENST00000397033	p.S457P	c.1369	0.076065071	5.456	1
304	CTNND1	ENST00000428599	p.R510W	c.1528	1.015444428	0	2
304	CTNND1	ENST00000428599	p.C551Y	c.1652	0.027724425	6.822	1
304	CTNND1	ENST00000428599	p.P641S	c.1921	0.013212067	7.242	1
305	PHYH	ENST00000263038	p.I199M	c.597	0.042866665	4.544	1
305	PHYH	ENST00000263038	p.A277T	c.829	0.042866665	0	1
306	CYP2C9	ENST00000260682	p.L458V	c.1372	0.010308656	0	1
306	CYP2C9	ENST00000260682	p.P317Q	c.950	0.010308656	6.6	1
307	MMP13	ENST00000260302	p.T154N	c.461	0.123040993	6.346	1
307	MMP13	ENST00000260302	p.G225D	c.674	1.012293163	0	1
307	MMP13	ENST00000260302	p.G225V	c.674	1.012293163	0	1
308	TRPV4	ENST00000261740	p.S290L	c.869	1.022005379	0	2
308	TRPV4	ENST00000261740	p.R316C	c.946	0.058670463	5.506	1
309	ACTN2	ENST00000542672	p.K409R	c.1226	0.229943763	4.016	1
309	ACTN2	ENST00000542672	p.T412M	c.1235	0.21799774	3.812	1
309	ACTN2	ENST00000542672	p.R457C	c.1369	2.147682775	0	1
309	ACTN2	ENST00000542672	p.R457H	c.1370	2.147682775	0	2
309	ACTN2	ENST00000542672	p.W490C	c.1470	0.058912506	6.206	1
309	ACTN2	ENST00000542672	p.M542I	c.1626	0.179072521	9.793	1
310	ZAP70	ENST00000264972	p.N395K	c.1185	0.055168937	4.18	1
310	ZAP70	ENST00000264972	p.M447T	c.1340	0.055168937	0	1
311	ALB	ENST00000295897	p.F43V	c.127	0.017050998	0	1
311	ALB	ENST00000295897	p.L179F	c.535	0.017050998	5.874	1
312	PAH	ENST00000553106	p.R158Q	c.473	0.237576593	0	1
312	PAH	ENST00000553106	p.G247S	c.739	0.100253317	3.713	1
312	PAH	ENST00000553106	p.E280K	c.838	0.185317347	2.632	1
313	DICER1	ENST00000343455	p.H1755N	c.5263	0.01135916	6.46	1
313	DICER1	ENST00000343455	p.E1796K	c.5386	0.01135916	0	1
314	SYK	ENST00000375754	p.R45H	c.134	0.011533706	0	1
314	SYK	ENST00000375754	p.R627H	c.1880	0.011533706	6.438	1
315	CTSA	ENST00000372484	p.Q398H	c.1194	0.140925052	0	1
315	CTSA	ENST00000372484	p.P203S	c.607	0.075427493	3.827	1
315	CTSA	ENST00000372484	p.V207M	c.619	0.075427493	3.827	1
316	HCK	ENST00000375852	p.S138Y	c.413	0.028399316	0	1
316	HCK	ENST00000375852	p.S181F	c.542	0.028399316	5.138	1
317	NGF	ENST00000369512	p.K153R	c.458	0.106369782	0	1
317	NGF	ENST00000369512	p.R221W	c.661	0.08761374	3.542	1
317	NGF	ENST00000369512	p.R224Q	c.671	0.035120871	5.607	1

318 JUP	ENST00000393931	p.R572Q	c.1715	0.003849802	8.021	1
318 JUP	ENST00000393931	p.R602C	c.1804	0.003849802	0	1
319 CTSG	ENST00000216336	p.R92C	c.274	0.040134869	0	1
319 CTSG	ENST00000216336	p.K246I	c.737	0.040134869	4.639	1
320 NRP2	ENST00000360409	p.S451F	c.1352	0.030819772	6.02	1
320 NRP2	ENST00000360409	p.D534N	c.1599_1600	0.01170282	7.417	1
320 NRP2	ENST00000360409	p.Y537C	c.1610	0.02664484	6.23	1
320 NRP2	ENST00000360409	p.R572W	c.1714	1.034583716	0	1
320 NRP2	ENST00000360409	p.R572Q	c.1715	1.034583716	0	1
321 H2AFV	ENST00000308153	p.E60G	c.179	0.096856991	3.368	1
321 H2AFV	ENST00000308153	p.L62F	c.184	0.006958538	7.167	1
321 H2AFV	ENST00000308153	p.F28Y	c.83	0.10381553	0	1
322 DNMT3A	ENST00000321117	p.R720H	c.2159	0.004756117	8.716	1
322 DNMT3A	ENST00000321117	p.R749C	c.2245	0.011023099	8.404	1
322 DNMT3A	ENST00000321117	p.F751I	c.2251	0.430543357	2.682	1
322 DNMT3A	ENST00000321117	p.R771Q	c.2312	1.046394554	6.339	2
322 DNMT3A	ENST00000321117	p.R792H	c.2375	1.203191529	0	2
322 DNMT3A	ENST00000321117	p.G890C	c.2668	1.084617507	7.529	1
322 DNMT3A	ENST00000321117	p.G890D	c.2669	1.084617507	7.529	1
322 DNMT3A	ENST00000321117	p.R899S	c.2695	0.130712698	7.265	1
323 EGFR	ENST00000275493	p.L541F	c.1621	1.029096713	0	1
323 EGFR	ENST00000275493	p.L541I	c.1621	1.029096713	0	1
323 EGFR	ENST00000275493	p.C571S	c.1712	0.098447858	5.103	1
324 CD8A	ENST00000352580	p.A63T	c.187	0.033603137	5.037	1
324 CD8A	ENST00000352580	p.S66G	c.196	0.106379107	3.276	1
324 CD8A	ENST00000352580	p.F128L	c.384	0.133693447	0	1
325 NFE2L2	ENST00000397062	p.R449H	c.1346	0.273573425	1.87	1
325 NFE2L2	ENST00000397062	p.A511V	c.1532	0.273573425	0	1
326 CLEC4E	ENST00000299663	p.F93L	c.279	1.101758419	0	2
326 CLEC4E	ENST00000299663	p.N107S	c.320	0.171572983	6.272	1
326 CLEC4E	ENST00000299663	p.R203W	c.607	0.323329155	3.493	1
327 PGLYRP3	ENST00000290722	p.R184Q	c.551	0.155359669	2.718	1
327 PGLYRP3	ENST00000290722	p.V224I	c.670	0.025579322	5.493	1
327 PGLYRP3	ENST00000290722	p.G255R	c.763	0.174189474	0	1
328 SHC1	ENST00000448116	p.L46V	c.136	0.11809338	0	1
328 SHC1	ENST00000448116	p.P151L	c.452	0.11809338	3.082	1
329 PIK3CA	ENST00000263967	p.R357Q	c.1070	0.350834281	6.449	1
329 PIK3CA	ENST00000263967	p.C420G	c.1258	12.46618189	0	1
329 PIK3CA	ENST00000263967	p.C420R	c.1258	12.46618189	0	12
329 PIK3CA	ENST00000263967	p.G451R	c.1351	1.751534707	4.15	1
329 PIK3CA	ENST00000263967	p.G451V	c.1352	1.751534707	4.15	1
329 PIK3CA	ENST00000263967	p.E453K	c.1357	10.30262515	5.445	8
329 PIK3CA	ENST00000263967	p.E453Q	c.1357	10.30262515	5.445	2
329 PIK3CA	ENST00000263967	p.E453D	c.1359	10.30262515	5.445	1
329 PIK3CA	ENST00000263967	p.D454Y	c.1360	0.298062548	5.699	1
329 PIK3CA	ENST00000263967	p.LLNPIG455in_frame_delf	c.1365_1379	1.108957729	3.83	1
330 PTPRF	ENST00000359947	p.A1338V	c.4013	0.016921485	5.885	1
330 PTPRF	ENST00000359947	p.D1339N	c.4015	0.043949787	4.508	1
330 PTPRF	ENST00000359947	p.R1584Q	c.4751	0.060871273	0	1

331 SEC13	ENST00000383801	p.S258R	c.772	1.102379499	0	2
331 SEC13	ENST00000383801	p.R285C	c.853	0.281797984	3.439	1
331 SEC13	ENST00000383801	p.K306R	c.917	0.114390099	6.619	1
332 C3	ENST00000245907	p.D1524N	c.4570	0.01406253	6.152	1
332 C3	ENST00000245907	p.R1532W	c.4594	0.019653742	6.473	1
332 C3	ENST00000245907	p.H1630R	c.4889	0.025319794	0	1
333 DNMT3A	ENST00000321117	p.A380V	c.1139	0.030121906	7.268	1
333 DNMT3A	ENST00000321117	p.P419T	c.1255	1.006488047	0	1
333 DNMT3A	ENST00000321117	p.P419L	c.1256	1.006488047	0	1
334 PDE10A	ENST00000539869	p.S501C	c.1502	0.26202912	8.007	1
334 PDE10A	ENST00000539869	p.F503L	c.1507	1.261126335	0	1
334 PDE10A	ENST00000539869	p.F503V	c.1507	1.261126335	0	1
334 PDE10A	ENST00000539869	p.P523S	c.1567	0.275338442	5.559	1
334 PDE10A	ENST00000539869	p.M537K	c.1610	0.395720412	7.881	1
334 PDE10A	ENST00000539869	p.D564N	c.1690	0.294386242	4.867	1
334 PDE10A	ENST00000539869	p.S571N	c.1712	0.503605568	3.122	1
334 PDE10A	ENST00000539869	p.A698D	c.2093	0.088193959	8.596	1
334 PDE10A	ENST00000539869	p.A732P	c.2194	0.153733582	6.739	1
334 PDE10A	ENST00000539869	p.S776L	c.2327	0.299572037	3.822	1
335 RBPJ	ENST00000342295	p.F221in_frame_del	c.658_660	0.098755164	0	1
335 RBPJ	ENST00000342295	p.K249T	c.746	0.098755164	3.34	1
336 FGFR2	ENST00000457416	p.E163K	c.487	1.031237747	0	2
336 FGFR2	ENST00000457416	p.R165W	c.493	0.148636975	8.383	1
336 FGFR2	ENST00000457416	p.H242Y	c.724	0.164701684	5.146	1
337 UBE2G2	ENST00000345496	p.E50Q	c.148	0.039336162	4.668	1
337 UBE2G2	ENST00000345496	p.L163V	c.487	0.039336162	0	1
338 AGAP2	ENST00000547588	p.S469L	c.1406	0.128296708	0	1
338 AGAP2	ENST00000547588	p.R501C	c.1501	0.088083172	3.567	1
338 AGAP2	ENST00000547588	p.R505G	c.1513	0.047625132	4.509	1
339 FKBP5	ENST00000536438	p.G59R	c.175	0.056330524	0	1
339 FKBP5	ENST00000536438	p.I122M	c.366	0.018946784	6.681	1
339 FKBP5	ENST00000536438	p.E131Q	c.391	0.0465847	4.424	1
340 EPHA4	ENST00000281821	p.V344A	c.1031	0.189743342	3.665	1
340 EPHA4	ENST00000281821	p.S399F	c.1196	1.081364453	0	2
340 EPHA4	ENST00000281821	p.Y409F	c.1226	0.120439436	9.353	1
340 EPHA4	ENST00000281821	p.V432L	c.1294	0.070747783	9.967	1
341 RPL9	ENST00000295955	p.G87D	c.260	0.009042892	6.789	1
341 RPL9	ENST00000295955	p.R89H	c.266	0.012419769	7.198	1
341 RPL9	ENST00000295955	p.I151T	c.452	0.015853504	0	1
342 ADRBK1	ENST00000308595	p.R104H	c.311	0.009030365	6.791	1
342 ADRBK1	ENST00000308595	p.L145I	c.433	0.009030365	0	1
343 CYP11A1	ENST00000268053	p.K382N	c.1146	0.019209816	6.293	1
343 CYP11A1	ENST00000268053	p.R451Q	c.1352	0.029007864	0	1
343 CYP11A1	ENST00000268053	p.D103N	c.307	0.016254692	5.943	1
344 TLR5	ENST00000366881	p.L423I	c.1267	0.120773047	3.087	1
344 TLR5	ENST00000366881	p.R446W	c.1336	0.143926417	0	1
344 TLR5	ENST00000366881	p.E471D	c.1413	0.029329848	5.252	1
345 MGAM	ENST00000475668	p.N900I	c.2699	0.009112104	6.778	1
345 MGAM	ENST00000475668	p.E901D	c.2703	0.100064351	3.321	1

345 MGAM	ENST00000475668	p.I938F	c.2812	0.109176456	0	1
346 BRAF	ENST00000288602	p.S467L	c.1400	9.82216427	5.499	2
346 BRAF	ENST00000288602	p.D594H	c.1780	5.383646501	7.975	1
346 BRAF	ENST00000288602	p.D594N	c.1780	5.383646501	7.975	2
346 BRAF	ENST00000288602	p.D594G	c.1781	5.383646501	7.975	1
346 BRAF	ENST00000288602	p.G596D	c.1787	2.512428361	8.181	1
346 BRAF	ENST00000288602	p.L597Q	c.1790	2.379273653	8.532	1
346 BRAF	ENST00000288602	p.V600K	c.1799_1798	321.0767445	0	13
346 BRAF	ENST00000288602	p.V600R	c.1799_1798	321.0767445	0	2
346 BRAF	ENST00000288602	p.V600E	c.1800_1799	321.0767445	0	307
346 BRAF	ENST00000288602	p.K601E	c.1801	7.727589944	9.577	8
347 CST5	ENST00000304710	p.G81E	c.242	0.08207007	0	1
347 CST5	ENST00000304710	p.P127S	c.379	0.08207007	3.607	1
348 SERPINB5	ENST00000382771	p.G169A	c.506	0.134716643	2.892	1
348 SERPINB5	ENST00000382771	p.E325K	c.973	0.134716643	0	1
349 KEAP1	ENST00000171111	p.R415C	c.1243	1.187636632	5.478	1
349 KEAP1	ENST00000171111	p.R415H	c.1244	1.187636632	5.478	1
349 KEAP1	ENST00000171111	p.G477S	c.1429	0.100472645	8.683	1
349 KEAP1	ENST00000171111	p.R483C	c.1447	1.259509312	0	1
349 KEAP1	ENST00000171111	p.R483H	c.1448	1.259509312	0	1
349 KEAP1	ENST00000171111	p.I506V	c.1516	0.278098145	3.213	1
349 KEAP1	ENST00000171111	p.G509W	c.1525	0.232877001	8.929	1
349 KEAP1	ENST00000171111	p.G527F	c.1580_1579	0.244220381	3.289	1
350 KCNU1	ENST00000399881	p.R704Q	c.2111	0.297390773	0	1
350 KCNU1	ENST00000399881	p.Y710F	c.2129	0.039569574	8.202	1
350 KCNU1	ENST00000399881	p.I754L	c.2260	0.130641672	6.627	1
350 KCNU1	ENST00000399881	p.R765G	c.2293	0.05181143	4.712	1
350 KCNU1	ENST00000399881	p.S783F	c.2348	0.01353661	7.268	1
350 KCNU1	ENST00000399881	p.D785V	c.2354	0.228499212	3.136	1
350 KCNU1	ENST00000399881	p.H787Y	c.2359	0.037099753	6.484	1
350 KCNU1	ENST00000399881	p.A788V	c.2363	0.17554548	3.129	1
351 PIK3CG	ENST00000496166	p.P424L	c.1271	0.18488069	4.74	1
351 PIK3CG	ENST00000496166	p.H471Q	c.1413	0.268905121	0	1
351 PIK3CG	ENST00000496166	p.F635L	c.1905	0.238991054	8.522	1
351 PIK3CG	ENST00000496166	p.S636P	c.1906	0.215316473	9.522	1
351 PIK3CG	ENST00000496166	p.E638Q	c.1912	0.243580273	6.38	1
351 PIK3CG	ENST00000496166	p.H673D	c.2017	0.102308173	6.317	1
351 PIK3CG	ENST00000496166	p.D674E	c.2022	0.112803786	6.437	1
351 PIK3CG	ENST00000496166	p.D171N	c.511	0.261533937	2.386	1
352 RPS6KA3	ENST00000379565	p.L506I	c.1516	1.431669779	0	2
352 RPS6KA3	ENST00000379565	p.G614S	c.1840	1.431669779	2.212	1
352 RPS6KA3	ENST00000379565	p.G614C	c.1840_1839	1.431669779	2.212	1
353 ANK1	ENST00000396942	p.H578Y	c.1732	0.014121136	6.146	1
353 ANK1	ENST00000396942	p.A609T	c.1825	0.014121136	0	1
354 SNRNP200	ENST00000323853	p.T1085A	c.3253	0.009220112	6.761	1
354 SNRNP200	ENST00000323853	p.R1121H	c.3362	0.009220112	0	1
355 HDAC4	ENST00000345617	p.R681K	c.2042	0.017775082	5.814	1
355 HDAC4	ENST00000345617	p.D977N	c.2929	0.065206933	0	1
355 HDAC4	ENST00000345617	p.Q1006R	c.3017	0.047431852	4.398	1

356 HIST1H3D	ENST00000377831	p.E106K	c.316	1.069324655	0	1
356 HIST1H3D	ENST00000377831	p.E106Q	c.316	1.069324655	0	1
356 HIST1H3J	ENST00000359303	p.D107Y	c.319	0.305591547	8.402	1
356 HIST1H3H	ENST00000369163	p.A128P	c.382	0.104035582	6.651	1
356 HIST1H3J	ENST00000359303	p.R129H	c.386	0.077419015	4.979	1
356 HIST1H3D	ENST00000377831	p.R132L	c.395	0.243752869	6.024	1
356 HIST1H3D	ENST00000377831	p.R135S	c.405	0.018684684	6.742	1
357 CBR1	ENST00000290349	p.V144I	c.430	0.098960733	3.337	1
357 CBR1	ENST00000290349	p.F268C	c.803	0.098960733	0	1
358 BIRC6	ENST00000421745	p.A4530S	c.13588	1.117980485	0	1
358 BIRC6	ENST00000421745	p.A4530V	c.13589	1.117980485	0	1
358 BIRC6	ENST00000421745	p.A4582D	c.13745	0.13591685	5.562	1
358 BIRC6	ENST00000421745	p.P4616T	c.13846	0.192134559	3.395	1
358 BIRC6	ENST00000421745	p.Q4722H	c.14166	0.086259026	9.157	1
359 RALB	ENST00000474855	p.M41K	c.122	1.236350529	0	1
359 RALB	ENST00000474855	p.M41T	c.122	1.236350529	0	1
359 RALB	ENST00000474855	p.F191L	c.573	0.472701058	2.081	1
360 ADH1B	ENST00000305046	p.S194F	c.581	0.19794506	6.221	1
360 ADH1B	ENST00000305046	p.R219K	c.656	0.201631182	6.583	1
360 ADH1B	ENST00000305046	p.E257K	c.769	3.023836636	0	4
361 JUP	ENST00000393931	p.L400V	c.1198	0.042302778	0	1
361 JUP	ENST00000393931	p.V429A	c.1286	0.007169062	7.124	1
361 JUP	ENST00000393931	p.G434C	c.1300	0.035133716	4.831	1
362 CFH	ENST00000367429	p.E229K	c.685	0.068062313	0	1
362 CFH	ENST00000367429	p.C251S	c.752	0.068062313	3.877	1
363 MYLK4	ENST00000274643	p.R91H	c.272	0.171239195	0	1
363 MYLK4	ENST00000274643	p.Y167C	c.500	0.144936627	2.83	1
363 MYLK4	ENST00000274643	p.D168Y	c.502	0.034911201	5.03	1
364 HGFAC	ENST00000511533	p.C528Y	c.1583	0.022143084	0	1
364 HGFAC	ENST00000511533	p.R631W	c.1891	0.022143084	5.497	1
365 SNRNP200	ENST00000323853	p.R1437L	c.4310	0.128988934	0	1
365 SNRNP200	ENST00000323853	p.F1736L	c.5206	0.08338931	6.531	1
365 SNRNP200	ENST00000323853	p.Y1823C	c.5468	0.119453173	3.081	1
366 ARL1	ENST00000551671	p.K62T	c.185	0.019992789	0	1
366 ARL1	ENST00000551671	p.M170V	c.508	0.002559362	8.61	1
366 ARL1	ENST00000551671	p.R19K	c.56	0.017433427	5.842	1
367 MGAM	ENST00000475668	p.R98Q	c.293	3.097387267	0	4
367 MGAM	ENST00000475668	p.P121S	c.361	0.114533656	5.143	1
367 MGAM	ENST00000475668	p.G123E	c.368	0.190263297	4.412	1
367 MGAM	ENST00000475668	p.C130Y	c.389	0.099940898	5.499	1
368 FLT4	ENST00000261937	p.A405T	c.1213	0.010265872	0	1
368 FLT4	ENST00000261937	p.P331S	c.991	0.010265872	6.606	1
369 SERPINA3	ENST00000467132	p.K360R	c.1079	0.320713812	3.277	1
369 SERPINA3	ENST00000467132	p.L363R	c.1088	0.365339088	4.005	1
369 SERPINA3	ENST00000467132	p.F413L	c.1237	0.246993556	3.304	1
369 SERPINA3	ENST00000467132	p.S415R	c.1245	0.160035523	3.566	1
369 SERPINA3	ENST00000467132	p.K177N	c.531	0.039688333	8.282	1
369 SERPINA3	ENST00000467132	p.W217C	c.651	0.099853703	8.075	1
369 SERPINA3	ENST00000467132	p.L313V	c.937	0.148294438	7.328	1

369	SERPINA3	ENST00000467132	p.F316Y	c.947	0.377593046	0	1
369	SERPINA3	ENST00000467132	p.S319L	c.956	0.042340322	8.975	1
369	SERPINA3	ENST00000467132	p.D321N	c.960_961	0.131300533	6.464	1
370	SORT1	ENST00000256637	p.V361L	c.1081	0.042570564	4.554	1
370	SORT1	ENST00000256637	p.G309E	c.926	0.042570564	0	1
371	PIK3CA	ENST00000263967	p.R38C	c.112	9.241239798	4.472	2
371	PIK3CA	ENST00000263967	p.R38S	c.112	9.241239798	4.472	1
371	PIK3CA	ENST00000263967	p.R38H	c.113	9.241239798	4.472	5
371	PIK3CA	ENST00000263967	p.R38L	c.113	9.241239798	4.472	1
371	PIK3CA	ENST00000263967	p.E39K	c.115	7.197941223	2.806	4
371	PIK3CA	ENST00000263967	p.E39G	c.116	7.197941223	2.806	1
371	PIK3CA	ENST00000263967	p.R88Q	c.263	21.13826212	0	21
371	PIK3CA	ENST00000263967	p.C90G	c.268	2.655319912	6.815	1
371	PIK3CA	ENST00000263967	p.C90Y	c.269	2.655319912	6.815	1
372	EPHA3	ENST00000336596	p.S46C	c.137	0.034164604	5.013	1
372	EPHA3	ENST00000336596	p.R83K	c.248	0.13413285	0	1
372	EPHA3	ENST00000336596	p.V133L	c.397	0.106358106	3.277	1
373	KIT	ENST00000288135	p.E128K	c.382	0.394104291	0	1
373	KIT	ENST00000288135	p.K176N	c.528	0.123547665	4.669	1
373	KIT	ENST00000288135	p.R177L	c.530	0.276391345	2.666	1
373	KIT	ENST00000288135	p.V204A	c.611	0.22105492	3.707	1
373	KIT	ENST00000288135	p.K209I	c.626	0.185336079	3.051	1
374	TP63	ENST00000264731	p.R337L	c.1010	1.190786846	0	1
374	TP63	ENST00000264731	p.R337Q	c.1010	1.190786846	0	1
374	TP63	ENST00000264731	p.R338H	c.1013	0.274401573	5.09	1
374	TP63	ENST00000264731	p.D170N	c.508	0.498449889	2.746	1
374	TP63	ENST00000264731	p.R226H	c.677	0.316751686	6.6	1
374	TP63	ENST00000264731	p.E328K	c.982	0.270603154	8.927	1
375	GIMAP2	ENST00000223293	p.D80H	c.238	0.088207791	0	1
375	GIMAP2	ENST00000223293	p.G29D	c.86	0.063023497	4.491	1
375	GIMAP2	ENST00000223293	p.G32E	c.95	0.045682077	4.515	1
376	PON1	ENST00000542556	p.G68E	c.203	0.046557203	8.822	1
376	PON1	ENST00000542556	p.G116V	c.347	0.107718034	4.327	1
376	PON1	ENST00000542556	p.V268M	c.802	0.050239071	6.541	1
376	PON1	ENST00000542556	p.D269N	c.805	0.3346452	0	1
376	PON1	ENST00000542556	p.V317A	c.950	0.324918094	1.879	1
377	HFE	ENST00000357618	p.H214Y	c.640	0.009112104	6.778	1
377	HFE	ENST00000357618	p.T217A	c.649	0.008519592	6.875	1
377	HFE	ENST00000357618	p.P273L	c.818	0.017631696	0	1
378	CNTN1	ENST00000551295	p.F248L	c.742	0.077419776	4.853	1
378	CNTN1	ENST00000551295	p.V251I	c.751	0.242785473	3.092	1
378	CNTN1	ENST00000551295	p.Y252C	c.755	1.037660879	5.813	1
378	CNTN1	ENST00000551295	p.Y252F	c.755	1.037660879	5.813	1
378	CNTN1	ENST00000551295	p.R324I	c.971	1.187454481	0	1
378	CNTN1	ENST00000551295	p.R324K	c.971	1.187454481	0	1
379	TXNDC5	ENST00000379757	p.T335I	c.1004	0.012413038	6.332	1
379	TXNDC5	ENST00000379757	p.V393I	c.1177	0.012413038	0	1
380	GPX5	ENST00000412168	p.V69M	c.205	0.168169766	0	1
380	GPX5	ENST00000412168	p.G98D	c.293	0.06051919	4.202	1

380	GPX5	ENST00000412168	p.E108Q	c.322	0.074535752	3.884	1
380	GPX5	ENST00000412168	p.N182D	c.544	0.051730491	4.439	1
381	THEM4	ENST00000368814	p.N183K	c.549	0.037733768	4.728	1
381	THEM4	ENST00000368814	p.A226V	c.677	0.037733768	0	1
382	CAPN3	ENST00000397163	p.D671N	c.2011	1.018826005	0	1
382	CAPN3	ENST00000397163	p.D671E	c.2013	1.018826005	0	1
382	CAPN3	ENST00000397163	p.E695Q	c.2083	0.020526442	7.076	1
382	CAPN3	ENST00000397163	p.R698H	c.2093	0.032281897	6.453	1
383	GRIA2	ENST00000296526	p.N75D	c.223	0.068360918	0	1
383	GRIA2	ENST00000296526	p.A332E	c.995	0.046447468	4.461	1
383	GRIA2	ENST00000296526	p.N333H	c.997	0.02399807	5.445	1
384	LRBA	ENST00000357115	p.P2247S	c.6739	0.007267619	0	1
384	LRBA	ENST00000357115	p.D2268N	c.6802	0.004474679	7.804	1
384	LRBA	ENST00000357115	p.S2270F	c.6809	0.002792939	8.484	1
385	SIRT2	ENST00000249396	p.P128L	c.383	0.042600081	0	1
385	SIRT2	ENST00000249396	p.K220N	c.660	0.042600081	4.553	1
386	ITGAX	ENST00000562522	p.S930I	c.2789	0.09011306	3.667	1
386	ITGAX	ENST00000562522	p.E932K	c.2794	0.047630574	5.479	1
386	ITGAX	ENST00000562522	p.R954K	c.2861	0.22335584	0	1
386	ITGAX	ENST00000562522	p.E1042K	c.3124	0.016782129	6.144	1
386	ITGAX	ENST00000562522	p.T1046I	c.3137	0.120526074	3.21	1
387	IL20RA	ENST00000316649	p.A143T	c.427	0.002551187	9.373	1
387	IL20RA	ENST00000316649	p.V183M	c.547	0.06574709	3.95	1
387	IL20RA	ENST00000316649	p.R192K	c.575	0.001522861	9.359	1
387	IL20RA	ENST00000316649	p.H217Y	c.649	0.067735073	0	1
388	EGFR	ENST00000275493	p.T354M	c.1061	0.201953377	0	1
388	EGFR	ENST00000275493	p.R377S	c.1131	0.016087021	6.207	1
388	EGFR	ENST00000275493	p.T384S	c.1151	0.190967371	2.408	1
389	FGG	ENST00000407946	p.D167N	c.499	1.010194961	0	1
389	FGG	ENST00000407946	p.D167E	c.501	1.010194961	0	1
389	FGG	ENST00000407946	p.S198N	c.593	0.020389921	6.616	1
390	CFH	ENST00000367429	p.A998V	c.2993	0.027680235	0	1
390	CFH	ENST00000367429	p.A1019V	c.3056	0.027680235	5.175	1
391	CYP2A13	ENST00000330436	p.K342T	c.1025	0.15822788	0	1
391	CYP2A13	ENST00000330436	p.D345N	c.1033	0.012657644	9.787	1
391	CYP2A13	ENST00000330436	p.F452L	c.1356	0.027808031	9.386	1
391	CYP2A13	ENST00000330436	p.R143H	c.428	0.0630287	4.123	1
391	CYP2A13	ENST00000330436	p.Q150L	c.449	0.130590036	3.348	1
392	PNP	ENST00000361505	p.P57S	c.169	0.107848417	3.24	1
392	PNP	ENST00000361505	p.R58Q	c.173	0.020950766	5.722	1
392	PNP	ENST00000361505	p.K95M	c.284	0.124788677	0	1
393	LIG1	ENST00000263274	p.V760A	c.2279	0.170087845	3.291	1
393	LIG1	ENST00000263274	p.P838S	c.2512	0.148861116	3.627	1
393	LIG1	ENST00000263274	p.P884L	c.2651	0.183107103	0	1
394	UBE2D3	ENST00000321805	p.S100Y	c.299	0.065179117	0	1
394	UBE2D3	ENST00000321805	p.D12N	c.34	0.040191646	4.674	1
394	UBE2D3	ENST00000321805	p.C21W	c.63	0.027024949	5.265	1
395	CHAT	ENST00000337653	p.L387F	c.1159	0.054017443	4.295	1
395	CHAT	ENST00000337653	p.A418V	c.1253	0.09597304	4.05	1

395 CHAT	ENST00000337653	p.L502R	c.1505	0.112467633	9.104	1
395 CHAT	ENST00000337653	p.F312L	c.936	0.113130326	0	1
396 CD38	ENST00000226279	p.S126N	c.377	0.258449321	0	1
396 CD38	ENST00000226279	p.R212C	c.634	0.049709	4.974	1
396 CD38	ENST00000226279	p.D217G	c.650	0.034562642	5.115	1
396 CD38	ENST00000226279	p.S220N	c.659	0.133667554	3.094	1
396 CD38	ENST00000226279	p.F222S	c.665	0.095000657	3.632	1
397 ARF1	ENST00000541182	p.K36T	c.107	0.07728328	0	1
397 ARF1	ENST00000541182	p.I4M	c.12	0.072192862	3.792	1
397 ARF1	ENST00000541182	p.I61L	c.181	0.008768069	7.618	1
398 APPL1	ENST00000288266	p.M510I	c.1530	0.111285937	0	1
398 APPL1	ENST00000288266	p.R563G	c.1687	0.110549141	3.264	1
398 APPL1	ENST00000288266	p.V587A	c.1760	0.007188966	7.12	1
399 GEM	ENST00000297596	p.Y76F	c.227	0.096342906	3.592	1
399 GEM	ENST00000297596	p.R77Q	c.230	0.190550512	2.628	1
399 GEM	ENST00000297596	p.D151N	c.451	0.247181956	0	1
399 GEM	ENST00000297596	p.F217L	c.649	0.017853148	8.652	1
400 JMJD6	ENST00000445478	p.L160P	c.479	0.006003419	7.38	1
400 JMJD6	ENST00000445478	p.I315S	c.944	0.006003419	0	1
401 EPHA5	ENST00000273854	p.I736N	c.2207	0.045943354	4.444	1
401 EPHA5	ENST00000273854	p.L791P	c.2372	0.045943354	0	1
402 RMI1	ENST00000325875	p.W56L	c.167	0.115526932	3.437	1
402 RMI1	ENST00000325875	p.L57F	c.169	0.262360817	2.694	1
402 RMI1	ENST00000325875	p.K166N	c.498	0.282839583	0	1
402 RMI1	ENST00000325875	p.G192S	c.574	0.138453813	4.797	1
403 PLEK	ENST00000234313	p.F35L	c.105	0.265262391	2.047	1
403 PLEK	ENST00000234313	p.G46R	c.136	0.066452762	4.275	1
403 PLEK	ENST00000234313	p.H79N	c.235	0.338172327	0	1
403 PLEK	ENST00000234313	p.G15A	c.44	0.057608922	4.489	1
405 U2AF1	ENST00000291552	p.V115I	c.343	0.129029823	8.808	1
405 U2AF1	ENST00000291552	p.222in_frame_insG	c.654_653	1.020142273	0	2
406 MVD	ENST00000301012	p.R64Q	c.191	0.003708368	8.075	1
406 MVD	ENST00000301012	p.S114L	c.341	0.003708368	0	1
407 HCK	ENST00000375852	p.Y515C	c.1544	0.197977407	3.087	1
407 HCK	ENST00000375852	p.D153H	c.457	0.115898297	6.912	1
407 HCK	ENST00000375852	p.A154S	c.460	0.208686896	0	1
407 HCK	ENST00000375852	p.T194S	c.581	0.141159398	3.596	1
408 KLHL12	ENST00000435533	p.R355C	c.1063	0.11957602	3.064	1
408 KLHL12	ENST00000435533	p.D376N	c.1126	0.11957602	0	1
409 TOP2A	ENST00000423485	p.R494L	c.1481	0.025541729	5.291	1
409 TOP2A	ENST00000423485	p.F556C	c.1667	0.025541729	0	1
410 KLK3	ENST00000598145	p.W143C	c.429	0.074738737	0	1
411 CYP2C19	ENST00000371321	p.D360N	c.1078	1.033553316	9.125	1
411 CYP2C19	ENST00000371321	p.D360E	c.1080	1.033553316	9.125	1
411 CYP2C19	ENST00000371321	p.R377K	c.1130	0.062050109	7.121	1
411 CYP2C19	ENST00000371321	p.S393F	c.1178	0.431686296	2.933	1
411 CYP2C19	ENST00000371321	p.G79R	c.235	2.141708048	0	1
411 CYP2C19	ENST00000371321	p.G79E	c.236	2.141708048	0	2
412 C6	ENST00000263413	p.H364N	c.1090	0.124375067	6.114	1

412 C6	ENST00000263413	p.E486D	c.1458	0.170923654	4.529	1
412 C6	ENST00000263413	p.E265K	c.793	0.312435332	3.628	1
412 C6	ENST00000263413	p.R289K	c.866	1.149839415	0	2
412 C6	ENST00000263413	p.S290I	c.869	0.240295642	6.48	1
413 LINGO1	ENST00000355300	p.R338C	c.1012	0.028368779	6.247	1
413 LINGO1	ENST00000355300	p.K242N	c.726	0.19830282	5.416	1
413 LINGO1	ENST00000355300	p.T266M	c.797	0.462778268	2.693	1
413 LINGO1	ENST00000355300	p.R290C	c.868	1.202393802	0	1
413 LINGO1	ENST00000355300	p.R290S	c.868	1.202393802	0	1
413 LINGO1	ENST00000355300	p.L311F	c.931	1.074098739	7.485	1
413 LINGO1	ENST00000355300	p.L311I	c.931	1.074098739	7.485	1
414 HEXB	ENST00000261416	p.P141L	c.422	0.025837896	6.121	1
414 HEXB	ENST00000261416	p.R170Q	c.509	0.16310223	2.772	1
414 HEXB	ENST00000261416	p.L220F	c.658	0.027396058	5.387	1
414 HEXB	ENST00000261416	p.A225V	c.674	0.013565745	6.401	1
414 HEXB	ENST00000261416	p.R281Q	c.842	0.196500015	0	1
415 HCK	ENST00000375852	p.E334K	c.1000	0.346817483	4.452	1
415 HCK	ENST00000375852	p.V405A	c.1214	0.175503619	8.451	1
415 HCK	ENST00000375852	p.R259W	c.775	1.114121084	0	2
415 HCK	ENST00000375852	p.S261Y	c.782	0.203075547	7.379	1
415 HCK	ENST00000375852	p.L262I	c.784	0.210942605	7.318	1
415 HCK	ENST00000375852	p.G271E	c.812	0.245305734	9.878	1
415 HCK	ENST00000375852	p.M292I	c.876	0.512880086	7.263	1
415 HCK	ENST00000375852	p.E305Q	c.913	0.273031956	8.242	1
415 HCK	ENST00000375852	p.I329M	c.987	0.582534417	4.559	1
416 TAF4	ENST00000252996	p.N598H	c.1792	0.04591152	4.445	1
416 TAF4	ENST00000252996	p.R640M	c.1919	0.04591152	0	1
417 HK2	ENST00000290573	p.K488R	c.1463	0.155013516	0	1
417 HK2	ENST00000290573	p.R846Q	c.2537	0.015677651	6.439	1
417 HK2	ENST00000290573	p.L882M	c.2644	0.147639738	2.801	1
418 LRBA	ENST00000357115	p.K2174N	c.6522	0.065215263	5.892	1
418 LRBA	ENST00000357115	p.R2196H	c.6587	2.024508851	0	3
418 LRBA	ENST00000357115	p.E2392K	c.7174	0.065420041	7.608	1
418 LRBA	ENST00000357115	p.P2394L	c.7181	0.027559156	8.619	1
419 DDX53	ENST00000327968	p.I349F	c.1045	0.200407333	0	1
419 DDX53	ENST00000327968	p.L284I	c.850	0.005578141	7.486	1
419 DDX53	ENST00000327968	p.P297H	c.890	0.100294875	3.45	1
419 DDX53	ENST00000327968	p.L300I	c.898	0.104844218	3.38	1
419 DDX53	ENST00000327968	p.V312M	c.934	0.065705088	7.104	1
420 CYP7A1	ENST00000301645	p.L42M	c.124	1.104548495	0	1
420 CYP7A1	ENST00000301645	p.L42P	c.125	1.104548495	0	1
420 CYP7A1	ENST00000301645	p.G49S	c.145	0.014264075	9.938	1
420 CYP7A1	ENST00000301645	p.A484T	c.1450	0.17900308	3.584	1
420 CYP7A1	ENST00000301645	p.C69Y	c.206	0.017530367	6.834	1
420 CYP7A1	ENST00000301645	p.A221E	c.662	0.022749837	6.458	1
421 UXS1	ENST00000283148	p.S107C	c.320	0.331743494	7.43	1
421 UXS1	ENST00000283148	p.E135Q	c.403	2.011510082	0	1
421 UXS1	ENST00000283148	p.E135A	c.404	2.011510082	0	1
421 UXS1	ENST00000283148	p.E135D	c.405	2.011510082	0	1

421 UXS1	ENST00000283148	p.R270H	c.809	0.431487884	7.452	1
422 CYP7A1	ENST00000301645	p.D213N	c.637	1.072299136	0	2
422 CYP7A1	ENST00000301645	p.A234D	c.701	0.019077289	6.712	1
422 CYP7A1	ENST00000301645	p.A288S	c.862	0.125520943	3.994	1
423 CDC25B	ENST00000245960	p.F489L	c.1467	0.079384436	3.655	1
423 CDC25B	ENST00000245960	p.M545T	c.1634	0.079384436	0	1
424 STK11	ENST00000326873	p.D176A	c.527	0.175757649	7.848	1
424 STK11	ENST00000326873	p.N181Y	c.541	1.032504345	0	1
424 STK11	ENST00000326873	p.N181I	c.542	1.032504345	0	1
424 STK11	ENST00000326873	p.S216F	c.647	0.223851136	5.15	1
425 DDI1	ENST00000302259	p.L335P	c.1004	0.08562778	7.784	1
425 DDI1	ENST00000302259	p.F258S	c.773	0.147369002	6.671	1
425 DDI1	ENST00000302259	p.S261L	c.782	0.149665728	3.664	1
425 DDI1	ENST00000302259	p.G262V	c.785	0.039485533	5.485	1
425 DDI1	ENST00000302259	p.A263D	c.788	0.173419662	2.778	1
425 DDI1	ENST00000302259	p.M328R	c.983	0.137460501	9.548	1
425 DDI1	ENST00000302259	p.L332I	c.994	0.262699087	0	1
426 PIGR	ENST00000356495	p.Y494C	c.1481	0.003629534	8.106	1
426 PIGR	ENST00000356495	p.A516V	c.1547	0.003629534	0	1
427 AP1B1	ENST00000405198	p.S40L	c.119	0.015197734	0	1
427 AP1B1	ENST00000405198	p.Y76H	c.226	0.015197734	6.04	1
428 MYH7	ENST00000355349	p.R237Q	c.710	0.144981113	3.006	1
428 MYH7	ENST00000355349	p.N238K	c.714	0.011711832	6.76	1
428 MYH7	ENST00000355349	p.E280K	c.838	0.293949725	0	1
428 MYH7	ENST00000355349	p.D282E	c.846	0.053715814	7.707	1
428 MYH7	ENST00000355349	p.S314F	c.941	0.029314234	6.564	1
428 MYH7	ENST00000355349	p.G316R	c.946	0.198822647	2.787	1
429 FBXW7	ENST00000603548	p.T385K	c.1154	0.754925512	5.912	1
429 FBXW7	ENST00000603548	p.S426L	c.1277	3.807783423	2.87	1
429 FBXW7	ENST00000603548	p.G437R	c.1309	0.633099627	5.524	1
429 FBXW7	ENST00000603548	p.R465C	c.1393	26.49928975	0	10
429 FBXW7	ENST00000603548	p.R465H	c.1394	26.49928975	0	14
429 FBXW7	ENST00000603548	p.S476I	c.1427	1.073963668	8.976	1
429 FBXW7	ENST00000603548	p.S476R	c.1428	1.073963668	8.976	1
429 FBXW7	ENST00000603548	p.R479P	c.1436	5.329626149	9.279	1
429 FBXW7	ENST00000603548	p.R479Q	c.1436	5.329626149	9.279	5
429 FBXW7	ENST00000603548	p.R505C	c.1513	24.91148582	2.758	9
429 FBXW7	ENST00000603548	p.R505G	c.1513	24.91148582	2.758	10
429 FBXW7	ENST00000603548	p.R505S	c.1513	24.91148582	2.758	1
429 FBXW7	ENST00000603548	p.R505H	c.1514	24.91148582	2.758	1
429 FBXW7	ENST00000603548	p.R505L	c.1514	24.91148582	2.758	1
429 FBXW7	ENST00000603548	p.R543G	c.1627	0.456319897	9.332	1
429 FBXW7	ENST00000603548	p.Y545C	c.1634	3.965100103	5.313	2
429 FBXW7	ENST00000603548	p.S546L	c.1637	0.840210304	7.971	1
429 FBXW7	ENST00000603548	p.S585T	c.1754	0.635102071	8.673	1
430 HIST1H3D	ENST00000377831	p.P67S	c.199	1.070202738	0	1
430 HIST1H3D	ENST00000377831	p.P67R	c.200	1.070202738	0	1
430 HIST1H3D	ENST00000377831	p.F68Y	c.203	0.017227967	9.9	1
430 HIST1H3J	ENST00000359303	p.A92V	c.275	0.153446828	3.854	1

431	TMPRSS15	ENST00000284885	p.D876N	c.2626	0.027321917	5.808	1
431	TMPRSS15	ENST00000284885	p.N953I	c.2858	0.036276607	0	1
431	TMPRSS15	ENST00000284885	p.V1007F	c.3019	0.026771708	5.762	1
432	ALB	ENST00000295897	p.L540H	c.1619	0.067367396	7.491	1
432	ALB	ENST00000295897	p.R138Q	c.413	0.176393632	3.149	1
432	ALB	ENST00000295897	p.Y162N	c.484	0.128278455	3.134	1
432	ALB	ENST00000295897	p.H170Y	c.508	0.016410013	6.224	1
432	ALB	ENST00000295897	p.R210W	c.628	0.245583866	0	1
433	STAT1	ENST00000409465	p.L514V	c.1540	0.009618316	6.7	1
433	STAT1	ENST00000409465	p.M579L	c.1735	0.009618316	0	1
434	TLR4	ENST00000355622	p.V461G	c.1382	0.209299071	9.507	1
434	TLR4	ENST00000355622	p.G480C	c.1438	0.2978166	2.873	1
434	TLR4	ENST00000355622	p.S482F	c.1445	0.186774861	6.862	1
434	TLR4	ENST00000355622	p.S504P	c.1510	1.316184031	0	1
434	TLR4	ENST00000355622	p.S504C	c.1511	1.316184031	0	1
434	TLR4	ENST00000355622	p.N526Y	c.1576	0.295601365	3.003	1
434	TLR4	ENST00000355622	p.H529R	c.1586	0.115986308	4.569	1
434	TLR4	ENST00000355622	p.L549I	c.1645	0.071959136	8.46	1
435	SARS	ENST00000369923	p.H280Y	c.838	0.086839066	3.554	1
435	SARS	ENST00000369923	p.R281L	c.842_843	0.021640576	5.648	1
435	SARS	ENST00000369923	p.R286W	c.856	0.005140057	7.604	1
435	SARS	ENST00000369923	p.Y329C	c.986	0.110223821	0	1
436	ANXA2	ENST00000332680	p.S135F	c.404	0.187682998	2.66	1
436	ANXA2	ENST00000332680	p.T141P	c.421	0.032274187	5.354	1
436	ANXA2	ENST00000332680	p.D142N	c.424	0.191318396	2.628	1
436	ANXA2	ENST00000332680	p.S179L	c.536	0.344438149	0	1
437	FTSJ2	ENST00000242257	p.R53Q	c.158	0.18526291	0	1
437	FTSJ2	ENST00000242257	p.L60F	c.178	0.022426492	9.794	1
437	FTSJ2	ENST00000242257	p.P83S	c.247	0.146250426	2.943	1
437	FTSJ2	ENST00000242257	p.A85V	c.254	0.081061977	4.241	1
437	FTSJ2	ENST00000242257	p.L114V	c.340	0.103700951	9.686	1
438	SFTPD	ENST00000372292	p.G166R	c.496	0.01620555	6.048	1
438	SFTPD	ENST00000372292	p.G184W	c.550	0.07791934	3.791	1
438	SFTPD	ENST00000372292	p.K250T	c.749	0.152433393	0	1
438	SFTPD	ENST00000372292	p.T275A	c.823	0.093515955	3.978	1
438	SFTPD	ENST00000372292	p.V305I	c.913	0.02708741	9.273	1
439	BLM	ENST00000355112	p.H1140Q	c.3420	0.129416847	2.971	1
439	BLM	ENST00000355112	p.R1144I	c.3431	0.016609773	6.085	1
439	BLM	ENST00000355112	p.E1193Q	c.3577	0.142269091	0	1
440	DGKD	ENST00000264057	p.T217I	c.650	0.043284671	4.53	1
440	DGKD	ENST00000264057	p.D253N	c.757	0.043284671	0	1
441	SERPINA12	ENST00000556881	p.I341M	c.1023	0.113390196	3.219	1
441	SERPINA12	ENST00000556881	p.A342T	c.1024	0.061817968	4.163	1
441	SERPINA12	ENST00000556881	p.P146L	c.437	0.16321796	0	1
443	BIRC8	ENST00000426466	p.M1V	c.1	0.0114065	6.454	1
443	BIRC8	ENST00000426466	p.K67E	c.199	0.007747787	7.012	1
443	BIRC8	ENST00000426466	p.Q93K	c.277	0.064893303	0	1
443	BIRC8	ENST00000426466	p.E21Q	c.61	0.013231996	8.585	1
443	BIRC8	ENST00000426466	p.G3S	c.7	0.043134917	4.535	1

444 VDR	ENST00000550325	p.K344M	c.1031	0.495491843	2.704	1
444 VDR	ENST00000550325	p.R346H	c.1037	0.271752284	3.602	1
444 VDR	ENST00000550325	p.K449M	c.1346	0.473400203	2.773	1
444 VDR	ENST00000550325	p.R208C	c.622	2.382121788	0	3
445 SERPINA3	ENST00000467132	p.G138R	c.412	1.134904587	0	1
445 SERPINA3	ENST00000467132	p.G138E	c.413	1.134904587	0	1
445 SERPINA3	ENST00000467132	p.A140S	c.418	0.35884304	6.458	1
445 SERPINA3	ENST00000467132	p.E164Q	c.490	0.189598668	5.335	1
445 SERPINA3	ENST00000467132	p.Y183N	c.547	0.337384376	3.34	1
446 SUPT5H	ENST00000432763	p.E430A	c.1289	0.0379699	4.719	1
446 SUPT5H	ENST00000432763	p.R469I	c.1406	0.0379699	0	1
447 HSD17B10	ENST00000168216	p.G34E	c.101	0.218696191	2.193	1
447 HSD17B10	ENST00000168216	p.G10D	c.29	0.218696191	0	1
448 MUT	ENST00000274813	p.Q476P	c.1427	0.006768257	7.207	1
448 MUT	ENST00000274813	p.S481C	c.1442	0.009759345	6.679	1
448 MUT	ENST00000274813	p.P729S	c.2185	0.016527601	0	1
449 PLG	ENST00000308192	p.G395E	c.1184	1.050146378	0	1
449 PLG	ENST00000308192	p.G395V	c.1184	1.050146378	0	1
449 PLG	ENST00000308192	p.D441N	c.1321	0.124663189	6.678	1
449 PLG	ENST00000308192	p.P442H	c.1325	0.176716604	6.66	1
449 PLG	ENST00000308192	p.E447K	c.1339	0.140902912	5.168	1
449 PLG	ENST00000308192	p.P225S	c.673	0.222899627	9.666	1
449 PLG	ENST00000308192	p.Q29H	c.87	0.078662445	9.434	1
450 BCHE	ENST00000264381	p.G441V	c.1322	0.131174565	9.448	1
450 BCHE	ENST00000264381	p.L274V	c.820	0.428851297	0	1
450 BCHE	ENST00000264381	p.E299K	c.895	0.107921684	5.152	1
450 BCHE	ENST00000264381	p.E304K	c.910	0.246329309	2.316	1
450 BCHE	ENST00000264381	p.V307I	c.919	0.243910628	2.333	1
451 JMJD6	ENST00000445478	p.P129L	c.386	0.031163477	5.004	1
451 JMJD6	ENST00000445478	p.G183E	c.548	0.031163477	0	1
452 GIF	ENST00000257248	p.S365Y	c.1094	1.05041167	0	2
452 GIF	ENST00000257248	p.L94I	c.280	0.129378854	4.339	1
452 GIF	ENST00000257248	p.A138V	c.413	0.225161482	9.966	1
453 C8B	ENST00000371237	p.S502F	c.1505	2.030300794	0	3
453 C8B	ENST00000371237	p.W548C	c.1644	0.05664464	5.935	1
453 C8B	ENST00000371237	p.P92S	c.274	1.139361688	7.163	2
454 PRPS1	ENST00000543248	p.W162C	c.486	0.090218894	3.506	1
454 PRPS1	ENST00000543248	p.R163K	c.488	0.027161502	5.324	1
454 PRPS1	ENST00000543248	p.L185P	c.554	0.112985637	0	1
455 RPS13	ENST00000525634	p.I37M	c.111	0.010124539	6.626	1
455 RPS13	ENST00000525634	p.K70T	c.209	0.010124539	0	1
456 SYMPK	ENST00000245934	p.R346L	c.1037	0.019512965	6.328	1
456 SYMPK	ENST00000245934	p.D200N	c.598	0.050110778	4.538	1
456 SYMPK	ENST00000245934	p.P312L	c.935	0.055492815	0	1
457 CSF2RB	ENST00000406230	p.V173A	c.518	0.1504882	4.42	1
457 CSF2RB	ENST00000406230	p.A210T	c.628	2.097199088	0	2
457 CSF2RB	ENST00000406230	p.A210V	c.629	2.097199088	0	1
457 CSF2RB	ENST00000406230	p.P231L	c.692	0.153813506	4.308	1
458 RNF43	ENST00000584437	p.L82S	c.245	0.010339535	7.645	1

458 RNF43	ENST00000584437	p.M83T	c.248	0.002470468	8.661	1
458 RNF43	ENST00000584437	p.S85F	c.254	0.00323056	8.274	1
458 RNF43	ENST00000584437	p.H86R	c.257	0.001051016	9.894	1
458 RNF43	ENST00000584437	p.M173T	c.518	0.011748081	0	1
459 SI	ENST00000264382	p.T399N	c.1196	0.020554374	9.976	1
459 SI	ENST00000264382	p.Q495E	c.1483	0.028242273	6.146	1
459 SI	ENST00000264382	p.E496K	c.1486	0.13457958	4.225	1
459 SI	ENST00000264382	p.S145C	c.433	1.068588769	0	1
459 SI	ENST00000264382	p.S145N	c.434	1.068588769	0	1
460 DDX18	ENST00000263239	p.K348N	c.1044	0.015554891	0	1
460 DDX18	ENST00000263239	p.D373H	c.1117	0.009800017	6.673	1
460 DDX18	ENST00000263239	p.S378Y	c.1133	0.005754874	7.441	1
461 PKN2	ENST00000370521	p.L720F	c.2160	0.02335702	5.42	1
461 PKN2	ENST00000370521	p.L770S	c.2309	0.042080598	0	1
461 PKN2	ENST00000370521	p.A907V	c.2720	0.018723578	5.739	1
462 CPA1	ENST00000011292	p.Y344C	c.1031	0.108601875	7.017	1
462 CPA1	ENST00000011292	p.E380K	c.1138	0.154782231	2.914	1
462 CPA1	ENST00000011292	p.R382M	c.1144_1145	0.187436028	3.693	1
462 CPA1	ENST00000011292	p.H179R	c.536	0.012256898	9.444	1
462 CPA1	ENST00000011292	p.Q310H	c.930	0.219155393	0	1
463 NCAM2	ENST00000400546	p.D52Y	c.154	0.191856801	3.402	1
463 NCAM2	ENST00000400546	p.P56S	c.166	0.030346532	6.109	1
463 NCAM2	ENST00000400546	p.Q57L	c.170	0.028432317	6.203	1
463 NCAM2	ENST00000400546	p.R92C	c.274	1.122663123	0	1
463 NCAM2	ENST00000400546	p.R92H	c.275	1.122663123	0	1
464 CSNK2A1	ENST00000349736	p.R191Q	c.572	0.258339536	9.63	1
464 CSNK2A1	ENST00000349736	p.R195Q	c.584	0.791206673	2.435	1
464 CSNK2A1	ENST00000349736	p.Y196C	c.587	0.318992091	4.738	1
464 CSNK2A1	ENST00000349736	p.G235A	c.704	0.478044383	4.783	1
464 CSNK2A1	ENST00000349736	p.H236R	c.707	2.292993575	0	3
464 CSNK2A1	ENST00000349736	p.I272M	c.816	0.03080394	6.692	1
464 CSNK2A1	ENST00000349736	p.R278Q	c.833	1.149449981	6.421	2
465 PDE9A	ENST00000291539	p.I392T	c.1175	0.014170161	0	1
465 PDE9A	ENST00000291539	p.R297W	c.889	0.014170161	6.141	1
466 PDCL2	ENST00000295645	p.H116N	c.346	0.050434604	0	1
466 PDCL2	ENST00000295645	p.F144C	c.431	0.010591128	6.561	1
466 PDCL2	ENST00000295645	p.V149M	c.445	0.012638771	6.306	1
466 PDCL2	ENST00000295645	p.F165C	c.494	0.027204705	5.2	1
467 NGB	ENST00000298352	p.E87D	c.261	0.013489681	6.212	1
467 NGB	ENST00000298352	p.T108S	c.322	0.024946825	5.325	1
467 NGB	ENST00000298352	p.R146P	c.437	0.038436505	0	1
468 CA3	ENST00000285381	p.Y88F	c.263	0.331022228	2.595	1
468 CA3	ENST00000285381	p.D138N	c.412	1.165511114	0	1
468 CA3	ENST00000285381	p.D138Y	c.412	1.165511114	0	1
469 TYMS	ENST00000323274	p.F80L	c.238	0.022263292	5.639	1
469 TYMS	ENST00000323274	p.P277V	c.829_830	0.111619773	3.192	1
469 TYMS	ENST00000323274	p.Y301C	c.902	0.129491351	0	1
470 LDHB	ENST00000396076	p.A35S	c.103	1.182676674	0	1
470 LDHB	ENST00000396076	p.A35T	c.103	1.182676674	0	1

470 LDHB	ENST00000396076	p.V93A	c.278	0.181949062	4.048	1
470 LDHB	ENST00000396076	p.K23R	c.68	0.109124925	8.334	1
470 LDHB	ENST00000396076	p.A252T	c.754	0.098827302	4.432	1
470 LDHB	ENST00000396076	p.I253V	c.757	0.153364975	3.78	1
471 APBA1	ENST00000265381	p.R787W	c.2359	1.221749076	0	1
471 APBA1	ENST00000265381	p.R787Q	c.2360	1.221749076	0	1
471 APBA1	ENST00000265381	p.T819A	c.2455	0.443498153	2.173	1
472 BAI3	ENST00000370598	p.R588P	c.1763	3.135465746	0	1
472 BAI3	ENST00000370598	p.R588Q	c.1763	3.135465746	0	3
472 BAI3	ENST00000370598	p.S634I	c.1901	0.554093007	2.884	1
473 ADAMTS4	ENST00000367996	p.R343Q	c.1028	0.005970221	7.388	1
473 ADAMTS4	ENST00000367996	p.R290C	c.868	0.005970221	0	1
474 ADRB3	ENST00000345060	p.V74M	c.220	0.12474034	0	1
474 ADRB3	ENST00000345060	p.R152H	c.455	0.12474034	3.003	1
475 LEPR	ENST00000349533	p.G575I	c.1723_1724	0.004506776	0	1
475 LEPR	ENST00000349533	p.P599R	c.1796	0.002642282	8.564	1
475 LEPR	ENST00000349533	p.D602Y	c.1804	0.001864494	9.067	1
476 CPN1	ENST00000370418	p.H366D	c.1096	0.023402334	5.593	1
476 CPN1	ENST00000370418	p.N208S	c.623	0.132272381	2.948	1
476 CPN1	ENST00000370418	p.N301S	c.902	0.150305228	0	1
477 OXSR1	ENST00000311806	p.D449Y	c.1345	0.010776257	6.536	1
477 OXSR1	ENST00000311806	p.S525N	c.1574	0.010776257	0	1
478 A2M	ENST00000318602	p.P36S	c.106	1.031532864	5.987	2
478 A2M	ENST00000318602	p.G632R	c.1894	0.085733331	4.544	1
478 A2M	ENST00000318602	p.M121V	c.361	1.074399529	0	1
478 A2M	ENST00000318602	p.M121I	c.363	1.074399529	0	1
479 ANK1	ENST00000396942	p.F917L	c.2751	0.013773127	7.182	1
479 ANK1	ENST00000396942	p.S925T	c.2773	0.161828013	3.686	1
479 ANK1	ENST00000396942	p.P940Q	c.2819	0.270815346	3.594	1
479 ANK1	ENST00000396942	p.L1033I	c.3097	0.131352522	6.934	1
479 ANK1	ENST00000396942	p.M1036I	c.3108	1.175574562	0	2
480 MUT	ENST00000274813	p.E334D	c.1002	0.148547888	0	1
480 MUT	ENST00000274813	p.K89T	c.266	0.148547888	2.751	1
481 SI	ENST00000264382	p.G447E	c.1340	0.00675888	7.209	1
481 SI	ENST00000264382	p.N448K	c.1344	0.019970303	5.646	1
481 SI	ENST00000264382	p.V473I	c.1417	0.026729183	0	1
482 MGAM	ENST00000475668	p.P1236L	c.3707	0.177912947	8.607	1
482 MGAM	ENST00000475668	p.P1240S	c.3718	1.027650093	9.404	1
482 MGAM	ENST00000475668	p.P1240R	c.3719	1.027650093	9.404	1
482 MGAM	ENST00000475668	p.LG1244FW	c.3732_3733	0.086164549	7.552	1
482 MGAM	ENST00000475668	p.G1517D	c.4550	0.171365328	9.975	1
482 MGAM	ENST00000475668	p.G1521R	c.4561	1.123562357	0	1
482 MGAM	ENST00000475668	p.G1521A	c.4562	1.123562357	0	1
482 MGAM	ENST00000475668	p.Y2447F	c.7340	0.330426489	3.162	1
483 KCNMA1	ENST00000404771	p.S562N	c.1685	0.015374357	6.188	1
483 KCNMA1	ENST00000404771	p.L945F	c.2835	0.122567932	3.048	1
483 KCNMA1	ENST00000404771	p.D980N	c.2938	0.134625507	0	1
484 ICAM1	ENST00000264832	p.L146H	c.437	0.008490116	0	1
484 ICAM1	ENST00000264832	p.E201Q	c.601	0.008490116	6.88	1

485 PGAM1	ENST00000334828	p.R86H	c.257	0.098030937	3.389	1
485 PGAM1	ENST00000334828	p.R90W	c.268	0.035213841	5.213	1
485 PGAM1	ENST00000334828	p.Q149E	c.445	0.122418011	0	1
486 OXCT1	ENST00000196371	p.Q517H	c.1551	0.072980413	0	1
486 OXCT1	ENST00000196371	p.V301L	c.901	0.006040987	7.371	1
486 OXCT1	ENST00000196371	p.R308G	c.922	0.066939426	3.901	1
487 P2RY1	ENST00000305097	p.R128M	c.383	0.096194369	3.417	1
487 P2RY1	ENST00000305097	p.L187H	c.560	0.121092545	0	1
487 P2RY1	ENST00000305097	p.R212Q	c.635	0.030041797	5.186	1
488 FADD	ENST00000301838	p.G58W	c.172	0.090684513	0	1
488 FADD	ENST00000301838	p.A91V	c.272	0.090684513	3.463	1
489 ACVR1	ENST00000409283	p.S339I	c.1016	0.328119864	3.798	1
489 ACVR1	ENST00000409283	p.N341I	c.1022	0.139580971	5.2	1
489 ACVR1	ENST00000409283	p.R375C	c.1123	1.043871722	9.787	2
489 ACVR1	ENST00000409283	p.E413Q	c.1237	0.208600969	6.253	1
489 ACVR1	ENST00000409283	p.S290L	c.869	1.114473521	0	2
490 IL1R1	ENST00000410023	p.V227A	c.680	0.127523894	0	1
490 IL1R1	ENST00000410023	p.S290C	c.868	0.012324147	6.491	1
490 IL1R1	ENST00000410023	p.K315R	c.944	0.007888682	6.986	1
490 IL1R1	ENST00000410023	p.D321N	c.961	0.109723992	3.204	1
491 MAP2K1	ENST00000307102	p.R47Q	c.140	0.231426535	5.902	1
491 MAP2K1	ENST00000307102	p.N122D	c.364	0.394980667	9.478	1
491 MAP2K1	ENST00000307102	p.P124S	c.370	6.390594297	0	6
491 MAP2K1	ENST00000307102	p.P124L	c.370_371	6.390594297	0	1
491 MAP2K1	ENST00000307102	p.E203K	c.607	4.575116579	3.762	4
491 MAP2K1	ENST00000307102	p.E203V	c.608	4.575116579	3.762	1
491 MAP2K1	ENST00000307102	p.E333A	c.998	0.394005011	7.995	1
492 MAPK10	ENST00000359221	p.A366V	c.1097	0.016630784	0	1
492 MAPK10	ENST00000359221	p.K121E	c.361	0.016630784	5.91	1
493 FAS	ENST00000355740	p.D228N	c.682	0.024482601	0	1
493 FAS	ENST00000355740	p.A290V	c.869	0.019736363	5.663	1
493 FAS	ENST00000355740	p.I318N	c.953	0.01104376	7.719	1
494 RYR2	ENST00000360064	p.R415P	c.1244	0.133667132	4.919	1
494 RYR2	ENST00000360064	p.R418W	c.1252	0.324700502	3.508	1
494 RYR2	ENST00000360064	p.R296C	c.886	1.143881006	0	2
494 RYR2	ENST00000360064	p.V298A	c.893	0.250042964	6.379	1
495 NOXO1	ENST00000397280	p.V69I	c.205	0.107992273	0	1
495 NOXO1	ENST00000397280	p.A109T	c.325	0.107992273	3.211	1
496 SERPINE2	ENST00000409304	p.R374G	c.1120	0.125869828	0	1
496 SERPINE2	ENST00000409304	p.F207V	c.619	0.108500545	3.232	1
496 SERPINE2	ENST00000409304	p.A210T	c.628	0.01025815	6.753	1
496 SERPINE2	ENST00000409304	p.A256T	c.766	0.011248796	6.62	1
497 JMJD1C	ENST00000399262	p.M2201I	c.6603	0.116749413	0	1
497 JMJD1C	ENST00000399262	p.R2277K	c.6830	0.021166179	6.372	1
497 JMJD1C	ENST00000399262	p.S2284C	c.6850	0.105939625	3.256	1
498 SETD3	ENST00000331768	p.R125Q	c.374	0.194502279	0	1
498 SETD3	ENST00000331768	p.P259S	c.775	0.171800156	2.58	1
498 SETD3	ENST00000331768	p.T267A	c.799	0.031820546	5.197	1
499 RPL10L	ENST00000298283	p.E56D	c.168	0.315773608	3.248	1

499 RPL10L	ENST00000298283	p.Q59H	c.177	0.034001151	9.799	1
499 RPL10L	ENST00000298283	p.R162C	c.484	2.106380423	0	1
499 RPL10L	ENST00000298283	p.R162S	c.484	2.106380423	0	1
499 RPL10L	ENST00000298283	p.R162L	c.485	2.106380423	0	1
500 CASP8	ENST00000358485	p.G387R	c.1159	0.066707834	3.906	1
500 CASP8	ENST00000358485	p.R307W	c.919	0.066707834	0	1
501 DAAM1	ENST00000351081	p.R691W	c.2071	0.093557687	3.418	1
501 DAAM1	ENST00000351081	p.V817A	c.2450	0.004316268	7.856	1
501 DAAM1	ENST00000351081	p.K842E	c.2524	0.097873954	0	1
502 ACTB	ENST00000331789	p.F200V	c.598	0.001584233	0	1
502 ACTB	ENST00000331789	p.G268S	c.802_801	0.001584233	9.302	1
503 PDE1C	ENST00000396193	p.M412I	c.1236	0.063344389	4.075	1
503 PDE1C	ENST00000396193	p.A427D	c.1280	0.071602679	3.887	1
503 PDE1C	ENST00000396193	p.M505I	c.1515	0.126926055	0	1
504 CHAT	ENST00000337653	p.V506E	c.1517	0.017960857	0	1
504 CHAT	ENST00000337653	p.H697Q	c.2091	0.017960857	5.799	1
505 IGF1R	ENST00000268035	p.E94K	c.280	0.010401966	6.587	1
505 IGF1R	ENST00000268035	p.L149H	c.446	0.020352571	0	1
505 IGF1R	ENST00000268035	p.P175L	c.524	0.009950605	6.651	1
506 STAT1	ENST00000409465	p.V426I	c.1276	0.010026765	6.64	1
506 STAT1	ENST00000409465	p.Q463E	c.1387	0.016354917	0	1
506 STAT1	ENST00000409465	p.W555C	c.1665	0.006328152	7.304	1
507 PKM	ENST00000319622	p.H464R	c.1391	0.02511316	6.65	1
507 PKM	ENST00000319622	p.L465M	c.1393	0.106153842	4.044	1
507 PKM	ENST00000319622	p.K266N	c.798	0.211994432	0	1
507 PKM	ENST00000319622	p.S287I	c.860	0.202101185	2.822	1
508 PC	ENST00000393958	p.I704V	c.2110	0.117604786	6.37	1
508 PC	ENST00000393958	p.E728K	c.2182	0.171149052	0	1
508 PC	ENST00000393958	p.I740M	c.2220	0.102405173	9.742	1
508 PC	ENST00000393958	p.R762C	c.2284	0.159799864	2.663	1
509 ACD	ENST00000393919	p.P112L	c.335	0.361733721	3.467	1
509 ACD	ENST00000393919	p.L184in_frame_del	c.553_551	3.09043343	0	4
510 API5	ENST00000531273	p.P229F	c.685_686	0.0096584	0	1
510 API5	ENST00000531273	p.G271R	c.811	0.0096584	6.694	1
511 KDM6B	ENST00000254846	p.R1194W	c.3580	0.162875397	0	1
511 KDM6B	ENST00000254846	p.L1218M	c.3652	0.015217893	7.004	1
511 KDM6B	ENST00000254846	p.E1346K	c.4036	0.090343458	3.567	1
511 KDM6B	ENST00000254846	p.A1352V	c.4055	0.076673238	3.822	1
512 ERBB4	ENST00000342788	p.I771T	c.2312	0.086858047	6.801	1
512 ERBB4	ENST00000342788	p.V840I	c.2518	1.075926161	0	2
512 ERBB4	ENST00000342788	p.R842Q	c.2525	0.249171031	8.694	1
512 ERBB4	ENST00000342788	p.F862L	c.2586	0.19002541	4.661	1
512 ERBB4	ENST00000342788	p.Y875F	c.2624	0.161810751	5.321	1
513 KLRK1	ENST00000540818	p.Q112H	c.336	0.006782346	7.204	1
513 KLRK1	ENST00000540818	p.H153Y	c.457	0.065747236	0	1
513 KLRK1	ENST00000540818	p.A193V	c.578	0.058964891	4.084	1
514 GRM7	ENST00000467425	p.M418I	c.1254	0.12548209	3.6	1
514 GRM7	ENST00000467425	p.F457L	c.1371	0.112797861	9.479	1
514 GRM7	ENST00000467425	p.G52K	c.154_155	0.208710927	3.241	1

514 GRM7	ENST00000467425	p.F122L	c.366	0.168660794	3.692	1
514 GRM7	ENST00000467425	p.V153A	c.458	0.26701478	0	1
515 SPOP	ENST00000503676	p.R45W	c.133	0.042877303	9.255	1
515 SPOP	ENST00000503676	p.E47A	c.140	0.065909832	8.61	1
515 SPOP	ENST00000503676	p.E50K	c.148	2.049727278	0	3
515 SPOP	ENST00000503676	p.G75L	c.224_223	0.240047779	4.457	1
516 CASP8	ENST00000358485	p.D362G	c.1085	1.395897091	0	1
516 CASP8	ENST00000358485	p.D362V	c.1085	1.395897091	0	1
516 CASP8	ENST00000358485	p.D367G	c.1100	0.809996105	5.429	1
516 CASP8	ENST00000358485	p.S397C	c.1190	0.324589755	3.191	1
516 CASP8	ENST00000358485	p.P411H	c.1232	0.725860955	2.749	1
516 CASP8	ENST00000358485	p.K412T	c.1235	0.144797607	4.681	1
516 CASP8	ENST00000358485	p.P453L	c.1358	0.111991267	6.901	1
516 CASP8	ENST00000358485	p.Y285F	c.854	0.180215199	6.106	1
516 CASP8	ENST00000358485	p.M287T	c.860	0.390902667	6.25	1
516 CASP8	ENST00000358485	p.R292W	c.874	1.374498952	8.013	1
516 CASP8	ENST00000358485	p.R292Q	c.875	1.374498952	8.013	1
516 CASP8	ENST00000358485	p.C295Y	c.884	0.20215798	5.167	1
516 CASP8	ENST00000358485	p.TT331in_frame_del	c.987_992	0.145910601	8.022	1
517 ITGAX	ENST00000562522	p.R520H	c.1559	1.029033322	0	2
517 ITGAX	ENST00000562522	p.R550Q	c.1649	0.10266142	5.683	1
517 ITGAX	ENST00000562522	p.A552V	c.1655	0.07688399	6.873	1
517 ITGAX	ENST00000562522	p.G574D	c.1721	0.102566479	9.913	1
518 USP7	ENST00000344836	p.H683Y	c.2047	0.037369369	4.742	1
518 USP7	ENST00000344836	p.S710F	c.2129	0.056552739	0	1
518 USP7	ENST00000344836	p.V751M	c.2251	0.01918337	5.704	1
519 CES1	ENST00000360526	p.S186N	c.557	0.01801223	9.603	1
519 CES1	ENST00000360526	p.R187W	c.559	3.139313356	0	2
519 CES1	ENST00000360526	p.R187L	c.560	3.139313356	0	2
519 CES1	ENST00000360526	p.V323L	c.967	0.416378867	3.323	1
519 CES1	ENST00000360526	p.G326A	c.977	0.156214229	4.714	1
520 DNPEP	ENST00000523282	p.F480in_frame_del	c.1439_1437	0.059375024	0	1
520 DNPEP	ENST00000523282	p.A293V	c.878	0.059375024	4.074	1
521 RAB3D	ENST00000589655	p.D68G	c.203	0.075467537	4.728	1
521 RAB3D	ENST00000589655	p.D20N	c.58	1.037733768	0	2
522 DCX	ENST00000338081	p.E53K	c.157	0.252438671	9.901	1
522 DCX	ENST00000338081	p.R120Q	c.359	0.258702651	7.903	1
522 DCX	ENST00000338081	p.R159C	c.475	1.005223847	0	1
522 DCX	ENST00000338081	p.R159H	c.476	1.005223847	0	1
523 MTHFD1	ENST00000545908	p.E276G	c.827	0.069156085	0	1
523 MTHFD1	ENST00000545908	p.V309L	c.925	0.069156085	3.854	1
524 EPHA7	ENST00000369303	p.Q809H	c.2427	0.052884912	0	1
524 EPHA7	ENST00000369303	p.E850Q	c.2548	0.052884912	4.241	1
525 NFASC	ENST00000367172	p.P337L	c.1010	0.081197277	4.787	1
525 NFASC	ENST00000367172	p.N363Y	c.1087	0.1217033	3.484	1
525 NFASC	ENST00000367172	p.E413K	c.1237	0.029025075	9.67	1
525 NFASC	ENST00000367172	p.H414Y	c.1240	0.126823362	0	1
526 KIR3DL1	ENST00000541392	p.L133Q	c.398	0.027393929	0	1
526 KIR3DL1	ENST00000541392	p.S256F	c.767	0.027393929	5.19	1

527 ZADH2	ENST00000322342	p.G168V	c.503	0.184593242	3.456	1
527 ZADH2	ENST00000322342	p.R265C	c.793	1.116827191	0	2
527 ZADH2	ENST00000322342	p.V300I	c.898	0.053745199	5.282	1
528 ADH4	ENST00000508393	p.P50S	c.148	0.056654292	4.269	1
528 ADH4	ENST00000508393	p.T156N	c.467	0.013153611	7.15	1
528 ADH4	ENST00000508393	p.V26F	c.76	0.058909431	0	1
529 RNASEH2A	ENST00000221486	p.A92T	c.274	0.025032034	0	1
529 RNASEH2A	ENST00000221486	p.A128T	c.382	0.012216713	6.355	1
529 RNASEH2A	ENST00000221486	p.V133M	c.397	0.0079221	8.367	1
529 RNASEH2A	ENST00000221486	p.A178T	c.532	0.009786441	6.675	1
530 PARP12	ENST00000263549	p.F627L	c.1879	0.082305002	0	1
530 PARP12	ENST00000263549	p.S656F	c.1967	0.018362928	5.858	1
530 PARP12	ENST00000263549	p.P658L	c.1973	0.066185626	3.942	1
531 SERPINA1	ENST00000448921	p.V357M	c.1069	0.131787814	3.148	1
531 SERPINA1	ENST00000448921	p.S89F	c.266	0.051126343	4.444	1
531 SERPINA1	ENST00000448921	p.V209A	c.626	0.160311883	0	1
531 SERPINA1	ENST00000448921	p.V326I	c.976	0.015348172	9.328	1
532 BTN3A2	ENST00000377708	p.G161R	c.481	0.101390894	0	1
532 BTN3A2	ENST00000377708	p.M210I	c.630	0.101390894	3.302	1
533 KLRD1	ENST00000381908	p.S76F	c.227	0.122302614	3.06	1
533 KLRD1	ENST00000381908	p.I118F	c.352	0.035197882	5.646	1
533 KLRD1	ENST00000381908	p.R172C	c.514	0.139878317	0	1
534 CDK4	ENST00000257904	p.V174G	c.521	0.084027187	0	1
534 CDK4	ENST00000257904	p.G216E	c.647	0.084027187	3.573	1
535 TRMT10A	ENST00000273962	p.V97I	c.289	0.011998604	7.436	1
535 TRMT10A	ENST00000273962	p.S99N	c.296	0.163919615	2.798	1
535 TRMT10A	ENST00000273962	p.H111Y	c.331	0.114088034	3.397	1
535 TRMT10A	ENST00000273962	p.Q140H	c.420	0.244490821	0	1
536 CFB	ENST00000556679	p.D1049N	c.3145	0.063952915	0	1
536 CFB	ENST00000556679	p.K1150N	c.3450	0.009881871	6.661	1
536 CFB	ENST00000556679	p.G1152E	c.3455	0.054071043	4.209	1
537 CASP2	ENST00000310447	p.G383V	c.1148	0.006820059	7.196	1
537 CASP2	ENST00000310447	p.R219C	c.655	0.013330631	0	1
537 CASP2	ENST00000310447	p.Y284F	c.851	0.006510572	7.263	1
538 GPI	ENST00000588991	p.S175F	c.524	0.141702913	0	1
538 GPI	ENST00000588991	p.A224T	c.670	0.128796924	2.978	1
538 GPI	ENST00000588991	p.R288C	c.862	0.037914107	6.08	1
539 VAT1L	ENST00000302536	p.E336K	c.1006	0.008449022	6.887	1
539 VAT1L	ENST00000302536	p.A168S	c.502	0.008449022	0	1
540 LTF	ENST00000231751	p.A67S	c.199	0.159729933	6.052	1
540 LTF	ENST00000231751	p.G80D	c.239	0.369925982	0	1
540 LTF	ENST00000231751	p.E85K	c.253	0.105118549	8.676	1
540 LTF	ENST00000231751	p.R139H	c.416	0.156321218	5.357	1
540 LTF	ENST00000231751	p.T141I	c.422	0.224194926	3.036	1
540 LTF	ENST00000231751	p.G143R	c.427	0.053834833	4.746	1
540 LTF	ENST00000231751	p.A273V	c.818	0.354285993	2.577	1
540 LTF	ENST00000231751	p.D316Y	c.946	0.115729298	9.661	1
541 MGAM	ENST00000475668	p.R384H	c.1151	0.085143303	5.42	1
541 MGAM	ENST00000475668	p.A412V	c.1235	0.08998214	0	1

541 MGAM	ENST00000475668	p.F433L	c.1297	0.084628061	3.933	1
541 MGAM	ENST00000475668	p.Q520L	c.1559	0.018781959	9.759	1
542 MAPK9	ENST00000343111	p.A340V	c.1019	0.008531411	0	1
542 MAPK9	ENST00000343111	p.R72C	c.214	0.008531411	6.873	1
543 METTL21A	ENST00000406927	p.D144N	c.430	0.152960012	4.146	1
543 METTL21A	ENST00000406927	p.I145M	c.435	0.03937738	6.963	1
543 METTL21A	ENST00000406927	p.C173Y	c.518	0.059303775	9.012	1
543 METTL21A	ENST00000406927	p.R174Q	c.521	1.071825075	0	2
543 METTL21A	ENST00000406927	p.E201K	c.601	0.017043298	7.536	1
544 TBK1	ENST00000331710	p.F56C	c.167	0.013881195	6.289	1
544 TBK1	ENST00000331710	p.L59F	c.177	0.08652933	3.549	1
544 TBK1	ENST00000331710	p.F158C	c.473	0.098225297	0	1
545 CDKL2	ENST00000307465	p.E130D	c.390	0.125607978	0	1
545 CDKL2	ENST00000307465	p.S14G	c.40	0.125607978	2.993	1
546 TBX1	ENST00000332710	p.Y172C	c.515	0.009500719	0	1
546 TBX1	ENST00000332710	p.R236I	c.707	0.006841757	8.151	1
546 TBX1	ENST00000332710	p.V273F	c.817	0.009306335	7.385	1
547 CA13	ENST00000321764	p.P14S	c.40	0.118860268	4.189	1
547 CA13	ENST00000321764	p.Y195D	c.583	0.232013964	5.318	1
547 CA13	ENST00000321764	p.P196S	c.586	0.042222973	7.92	1
547 CA13	ENST00000321764	p.R247C	c.739	1.226915277	0	2
547 CA13	ENST00000321764	p.S30F	c.89	0.497948468	2.807	1
548 IL1A	ENST00000263339	p.R185K	c.554	0.060429391	5.924	1
548 IL1A	ENST00000263339	p.P208S	c.622	1.016470178	0	1
548 IL1A	ENST00000263339	p.P208R	c.623	1.016470178	0	1
549 FYN	ENST00000368667	p.F353L	c.1059	0.135045847	0	1
549 FYN	ENST00000368667	p.R392Q	c.1175	0.063326398	4.087	1
549 FYN	ENST00000368667	p.E458K	c.1372	0.080687437	3.714	1
550 XDH	ENST00000379416	p.R830C	c.2488	0.023650262	0	1
550 XDH	ENST00000379416	p.R1223H	c.3668	0.023650262	5.402	1
551 ERBB3	ENST00000267101	p.T355A	c.1063	1.295043586	0	1
551 ERBB3	ENST00000267101	p.T355I	c.1064	1.295043586	0	1
551 ERBB3	ENST00000267101	p.K329E	c.985	1.295043586	2.761	1
551 ERBB3	ENST00000267101	p.K329T	c.986	1.295043586	2.761	1
552 ACAA1	ENST00000333167	p.ITLL388in_frame_del	c.1174_1163	0.012850782	0	1
552 ACAA1	ENST00000333167	p.G217V	c.650	0.012850782	6.282	1
553 OCRL	ENST00000371113	p.E470K	c.1408	0.011621983	0	1
553 OCRL	ENST00000371113	p.N512K	c.1536	0.011621983	6.427	1
554 HK3	ENST00000292432	p.E484K	c.1450	0.005410584	7.53	1
554 HK3	ENST00000292432	p.A488S	c.1462	0.007688938	7.023	1
554 HK3	ENST00000292432	p.P489L	c.1466	0.006920059	7.175	1
554 HK3	ENST00000292432	p.A831D	c.2492	0.02001958	0	1
555 C5	ENST00000223642	p.L126I	c.376	0.097260647	3.362	1
555 C5	ENST00000223642	p.S147L	c.440	0.097260647	0	1
556 GLS	ENST00000320717	p.N494K	c.1482	0.066459571	0	1
556 GLS	ENST00000320717	p.R543Q	c.1628	0.015799251	5.984	1
556 GLS	ENST00000320717	p.K218T	c.653	0.05066032	4.303	1
557 HPN	ENST00000392226	p.D352N	c.1054	0.029850328	0	1
557 HPN	ENST00000392226	p.S376I	c.1127	0.013830528	6.176	1

557 HPN	ENST00000392226	p.G190R	c.568	0.016019801	5.964	1
558 ACADSB	ENST00000358776	p.K69N	c.207	0.010467059	6.578	1
558 ACADSB	ENST00000358776	p.K130N	c.390	0.010467059	0	1
559 STARD13	ENST00000336934	p.G71A	c.212	0.005531935	0	1
559 STARD13	ENST00000336934	p.E99K	c.295	0.005531935	7.498	1
560 SEC24A	ENST00000398844	p.H821N	c.2461	0.012700244	6.299	1
560 SEC24A	ENST00000398844	p.R879H	c.2636	0.012700244	0	1
561 POT1	ENST00000357628	p.QP157HS	c.472_471	0.142694338	0	1
561 POT1	ENST00000357628	p.T246S	c.736	0.142694338	2.809	1
562 CUTC	ENST00000370476	p.R104C	c.310	1.094952668	0	2
562 CUTC	ENST00000370476	p.I136S	c.407	0.179617522	3.477	1
562 CUTC	ENST00000370476	p.R138G	c.412	0.006863308	8.963	1
562 CUTC	ENST00000370476	p.L140V	c.418	0.006280086	8.315	1
563 IFNL3	ENST00000413851	p.E61K	c.181	0.086085115	5.057	1
563 IFNL3	ENST00000413851	p.C69W	c.207	0.099697389	3.369	1
563 IFNL3	ENST00000413851	p.R180H	c.539	0.127947952	0	1
563 IFNL3	ENST00000413851	p.T183M	c.548	0.03835875	9.804	1
564 GBE1	ENST00000429644	p.M587I	c.1761	1.003199362	0	2
564 GBE1	ENST00000429644	p.L621R	c.1862	0.006398724	8.288	1
565 MAGEA4	ENST00000393920	p.E157K	c.469	0.066155275	4.918	1
565 MAGEA4	ENST00000393920	p.R299C	c.895	1.033077637	0	1
565 MAGEA4	ENST00000393920	p.R299H	c.896	1.033077637	0	1
566 GATA3	ENST00000379328	p.M369I	c.1107	0.044531086	4.53	1
566 GATA3	ENST00000379328	p.G279S	c.835	0.072080427	0	1
566 GATA3	ENST00000379328	p.R313K	c.938	0.030042171	5.118	1
567 EPHB2	ENST00000400191	p.A731T	c.2191	0.11444986	5.794	1
567 EPHB2	ENST00000400191	p.G874S	c.2620	1.019408115	0	2
567 EPHB2	ENST00000400191	p.I876M	c.2628	0.108465089	9.496	1
568 VRK3	ENST00000594948	p.R220W	c.658	0.145406448	3.548	1
568 VRK3	ENST00000594948	p.E301D	c.903	0.175939305	3.03	1
568 VRK3	ENST00000594948	p.R332C	c.994	0.207923494	0	1
569 FANCM	ENST00000267430	p.E1826K	c.5476	0.160536797	2.648	1
569 FANCM	ENST00000267430	p.I1834M	c.5502	0.02489436	7.58	1
569 FANCM	ENST00000267430	p.R1865M	c.5594	0.171008406	0	1
569 FANCM	ENST00000267430	p.A1942T	c.5824	0.026904812	7.324	1
570 PRDM9	ENST00000296682	p.Y276N	c.826	0.190583237	7.487	1
570 PRDM9	ENST00000296682	p.R279Q	c.836	2.102491873	0	3
570 PRDM9	ENST00000296682	p.E303D	c.909	0.018072783	7.375	1
570 PRDM9	ENST00000296682	p.V305E	c.914	0.319385625	3.609	1
570 PRDM9	ENST00000296682	p.D309N	c.925	0.062808999	6.806	1
571 SCIN	ENST00000297029	p.R402H	c.1205	0.137547326	2.862	1
571 SCIN	ENST00000297029	p.D423G	c.1268	0.138566065	0	1
571 SCIN	ENST00000297029	p.G476D	c.1427	0.004990063	9.939	1
572 IL8	ENST00000307407	p.Q35E	c.103	0.353448979	2.657	1
572 IL8	ENST00000307407	p.A62T	c.184	1.38782282	0	1
572 IL8	ENST00000307407	p.A62V	c.185	1.38782282	0	1
572 IL8	ENST00000307407	p.L32H	c.95	0.416247255	2.401	1
572 IL8	ENST00000307407	p.R33K	c.98	0.093775836	4.646	1
573 IL3RA	ENST00000331035	p.E108D	c.324	0.015084588	7.318	1

573 IL3RA	ENST00000331035	p.T111I	c.332	0.019394428	7.326	1
573 IL3RA	ENST00000331035	p.R162H	c.485	1.012499425	0	2
574 ADH7	ENST00000476959	p.S197F	c.590	0.067637427	7.204	1
574 ADH7	ENST00000476959	p.P211L	c.632	0.077623063	3.861	1
574 ADH7	ENST00000476959	p.A300P	c.898	0.203495879	0	1
574 ADH7	ENST00000476959	p.D324N	c.970	0.18972564	2.967	1
575 NAE1	ENST00000359087	p.C124Y	c.371	0.069492447	0	1
575 NAE1	ENST00000359087	p.S149P	c.445	0.069492447	3.847	1
576 FN1	ENST00000354785	p.R1375H	c.4124	0.2018467	5.062	1
576 FN1	ENST00000354785	p.R1392C	c.4174	1.295975723	0	1
576 FN1	ENST00000354785	p.R1392H	c.4175	1.295975723	0	1
576 FN1	ENST00000354785	p.Y1393C	c.4178	0.197256286	5.098	1
576 FN1	ENST00000354785	p.V1426A	c.4277	0.723358133	2.078	1
577 GIMAP1	ENST00000307194	p.E79K	c.235	0.581685979	2.827	1
577 GIMAP1	ENST00000307194	p.A109T	c.325	0.035623805	8.624	1
577 GIMAP1	ENST00000307194	p.R28W	c.82	3.143459698	0	2
577 GIMAP1	ENST00000307194	p.R28Q	c.83	3.143459698	0	2
578 DPP4	ENST00000360534	p.D545Y	c.1633	0.35502684	2.494	1
578 DPP4	ENST00000360534	p.S577T	c.1730	1.17751342	0	1
578 DPP4	ENST00000360534	p.S577R	c.1731	1.17751342	0	1
579 CD1D	ENST00000368171	p.T42K	c.125	0.018736782	6.745	1
579 CD1D	ENST00000368171	p.V99M	c.295	0.025907673	0	1
579 CD1D	ENST00000368171	p.L157P	c.470	0.016584738	5.914	1
580 XYLB	ENST00000207870	p.D85N	c.253	0.022576822	5.954	1
580 XYLB	ENST00000207870	p.F86I	c.256	0.255818661	2.379	1
580 XYLB	ENST00000207870	p.S87F	c.260	0.250532009	2.27	1
580 XYLB	ENST00000207870	p.F204S	c.611	0.066420063	7.979	1
580 XYLB	ENST00000207870	p.P269S	c.805	0.419667243	0	1
581 ACOT12	ENST00000307624	p.D95Y	c.283	0.011735312	6.413	1
581 ACOT12	ENST00000307624	p.S218I	c.653	0.011735312	0	1
583 AHCYL2	ENST00000325006	p.C232Y	c.695	0.03036799	0	1
583 AHCYL2	ENST00000325006	p.C292Y	c.875	0.008660556	7.829	1
583 AHCYL2	ENST00000325006	p.G311A	c.932	0.025970183	5.267	1
584 LHCGR	ENST00000294954	p.L204R	c.611	0.124521901	9.806	1
584 LHCGR	ENST00000294954	p.E206K	c.616	2.011060831	0	3
584 LHCGR	ENST00000294954	p.D228N	c.682	0.222702844	6.652	1
585 MAP2K4	ENST00000415385	p.R145W	c.433	1.04254823	6.634	2
585 MAP2K4	ENST00000415385	p.V148M	c.442	0.246758315	3.142	1
585 MAP2K4	ENST00000415385	p.E152K	c.454	0.138742895	3.929	1
585 MAP2K4	ENST00000415385	p.G263R	c.787	0.055388502	9.719	1
585 MAP2K4	ENST00000415385	p.S268F	c.803	1.200259189	0	2
586 NUDT14	ENST00000392568	p.Y142N	c.424	0.022204563	0	1
586 NUDT14	ENST00000392568	p.G203S	c.607	0.022204563	5.493	1
587 EXOG	ENST00000287675	p.R89W	c.265	0.025934206	5.269	1
587 EXOG	ENST00000287675	p.P198H	c.593	0.014884969	6.07	1
587 EXOG	ENST00000287675	p.A223V	c.668	0.040819175	0	1
588 DCC	ENST00000442544	p.G457R	c.1369	0.097934703	3.457	1
588 DCC	ENST00000442544	p.Q460E	c.1378	0.082339795	3.728	1
588 DCC	ENST00000442544	p.E507K	c.1519	0.166529982	0	1

589 PKP2	ENST00000070846	p.H477Y	c.1429	0.015197734	0	1
589 PKP2	ENST00000070846	p.T521A	c.1561	0.015197734	6.04	1
590 ATL1	ENST00000441560	p.R63T	c.188	0.029584801	5.079	1
590 ATL1	ENST00000441560	p.G324D	c.971	0.029584801	0	1
591 NPR3	ENST00000265074	p.Y138H	c.412	2.11657318	0	3
591 NPR3	ENST00000265074	p.L209P	c.626	0.358080501	3.119	1
591 NPR3	ENST00000265074	p.D237Y	c.709	0.037289974	9.41	1
592 NONO	ENST00000276079	p.R153Q	c.458	0.095898694	0	1
592 NONO	ENST00000276079	p.V222G	c.665	0.087838669	3.509	1
592 NONO	ENST00000276079	p.R293H	c.878	0.008060025	6.955	1
593 GMDS	ENST00000380815	p.E169K	c.505	0.007060568	7.146	1
593 GMDS	ENST00000380815	p.E269D	c.807	0.007060568	0	1
594 TLR4	ENST00000355622	p.S102G	c.304	0.10305136	3.419	1
594 TLR4	ENST00000355622	p.S126L	c.377	0.195730617	0	1
594 TLR4	ENST00000355622	p.T151Y	c.451_452	0.111796258	3.29	1
595 APCS	ENST00000255040	p.S121L	c.362	1.035476316	0	2
595 APCS	ENST00000255040	p.P31S	c.91	0.086266685	4.817	1
596 HIBADH	ENST00000265395	p.P137S	c.409	0.00994371	6.652	1
596 HIBADH	ENST00000265395	p.P158S	c.472	0.101096931	3.373	1
596 HIBADH	ENST00000265395	p.G205R	c.613	0.106465602	0	1
597 FASLG	ENST00000367721	p.E185K	c.553	0.068004416	4.048	1
597 FASLG	ENST00000367721	p.G187R	c.559	0.02742225	5.652	1
597 FASLG	ENST00000367721	p.K217T	c.650	0.03854369	5.596	1
597 FASLG	ENST00000367721	p.S253R	c.759	0.101016745	0	1
598 NCF2	ENST00000367535	p.D88N	c.262	1.170400326	0	1
598 NCF2	ENST00000367535	p.D88Y	c.262	1.170400326	0	1
598 NCF2	ENST00000367535	p.K134in_frame_del	c.402_400	0.340800652	2.553	1
599 LMAN1	ENST00000251047	p.E107D	c.321	0.100142207	0	1
599 LMAN1	ENST00000251047	p.K224T	c.671	0.024980508	5.43	1
599 LMAN1	ENST00000251047	p.S261F	c.782	0.078731353	3.7	1
600 HBD	ENST00000380299	p.E8K	c.22	0.040134869	4.639	1
600 HBD	ENST00000380299	p.H78Y	c.232	0.040134869	0	1
601 TPST2	ENST00000403880	p.P69S	c.205	0.00526628	0	1
601 TPST2	ENST00000403880	p.A152G	c.455	0.00526628	7.569	1
602 ARHGEF1	ENST00000599846	p.A108V	c.323	0.007099829	0	1
602 ARHGEF1	ENST00000599846	p.A217V	c.650	0.007099829	7.138	1
603 ANGPT1	ENST00000517746	p.G465R	c.1393	0.020389391	7.201	1
603 ANGPT1	ENST00000517746	p.R487C	c.1459	2.124318239	0	1
603 ANGPT1	ENST00000517746	p.R487H	c.1460	2.124318239	0	2
603 ANGPT1	ENST00000517746	p.R330C	c.988	1.209835367	4.089	2
604 GH1	ENST00000323322	p.P87R	c.260	0.027527168	0	1
604 GH1	ENST00000323322	p.I205M	c.615	0.027527168	5.183	1
605 PPFIA2	ENST00000549396	p.E1027K	c.3079	0.030142187	5.108	1
605 PPFIA2	ENST00000549396	p.W1028R	c.3082	0.043437678	4.661	1
605 PPFIA2	ENST00000549396	p.P1030A	c.3088	0.008104843	6.947	1
605 PPFIA2	ENST00000549396	p.R1095W	c.3283	0.076628375	0	1
606 RNASE2	ENST00000304625	p.M54V	c.160	0.02881222	0	1
606 RNASE2	ENST00000304625	p.R124T	c.371	0.015854102	5.979	1
606 RNASE2	ENST00000304625	p.A126E	c.377	0.012958118	6.27	1

607 TBC1D20	ENST00000461304	p.R67Q	c.200	0.006364413	7.984	1
607 TBC1D20	ENST00000461304	p.D240H	c.718	0.008281065	0	1
607 TBC1D20	ENST00000461304	p.E289G	c.866	0.004331253	7.851	1
608 KAL1	ENST00000262648	p.V303I	c.907	2	0	2
608 KAL1	ENST00000262648	p.V303A	c.908	2	0	1
609 ADH4	ENST00000508393	p.S218L	c.653	0.049583365	0	1
609 ADH4	ENST00000508393	p.G240E	c.719	0.049583365	4.334	1
610 RRM1	ENST00000300738	p.F463Y	c.1388	0.008572906	0	1
610 RRM1	ENST00000300738	p.E533D	c.1599	0.008572906	6.866	1
611 ITGA2B	ENST00000262407	p.P443S	c.1327	0.122938871	8.626	1
611 ITGA2B	ENST00000262407	p.P45H	c.134	0.184186583	0	1
611 ITGA2B	ENST00000262407	p.A473T	c.1417	0.144741287	5.572	1
611 ITGA2B	ENST00000262407	p.F85L	c.253	0.180366761	2.666	1
611 ITGA2B	ENST00000262407	p.L124M	c.370	0.022562811	8.347	1
612 MRE11A	ENST00000407439	p.Q51H	c.153	0.001487391	9.393	1
612 MRE11A	ENST00000407439	p.E54K	c.160	0.010449967	7.161	1
612 MRE11A	ENST00000407439	p.D56Y	c.166	0.051316995	4.733	1
612 MRE11A	ENST00000407439	p.I18L	c.52	0.163148243	0	1
612 MRE11A	ENST00000407439	p.G288C	c.862	0.091643785	3.544	1
612 MRE11A	ENST00000407439	p.R291H	c.872	0.044566321	4.996	1
613 NEO1	ENST00000339362	p.Y473C	c.1418	0.140925052	0	1
613 NEO1	ENST00000339362	p.E495D	c.1485	0.140925052	2.827	1
614 LRBA	ENST00000357115	p.H2304P	c.6911	0.086789665	0	1
614 LRBA	ENST00000357115	p.D2356Y	c.7066	0.030028558	6.045	1
614 LRBA	ENST00000357115	p.F2444L	c.7332	0.083774186	3.803	1
615 CUTC	ENST00000370476	p.F89Y	c.266	0.001249009	9.645	1
615 CUTC	ENST00000370476	p.R207I	c.620	0.003452842	8.178	1
615 CUTC	ENST00000370476	p.R236Q	c.707	0.004701851	0	1
616 CHIT1	ENST00000367229	p.G216C	c.646	1.086197057	0	1
616 CHIT1	ENST00000367229	p.G216D	c.647	1.086197057	0	1
616 CHIT1	ENST00000367229	p.R269C	c.805	0.343477277	3.799	1
616 CHIT1	ENST00000367229	p.E297K	c.889	0.049370215	8.524	1
616 CHIT1	ENST00000367229	p.W331G	c.991	0.081605767	7.77	1
616 CHIT1	ENST00000367229	p.V332E	c.995	0.122296626	7.147	1
617 SETD6	ENST00000219315	p.R338H	c.1013	0.008178205	6.934	1
617 SETD6	ENST00000219315	p.T370I	c.1109	0.026749344	0	1
617 SETD6	ENST00000219315	p.E396K	c.1186	0.009665097	6.693	1
617 SETD6	ENST00000219315	p.W412C	c.1236	0.008906041	6.811	1
618 MAPK9	ENST00000343111	p.H143L	c.428	0.160182365	5.884	1
618 MAPK9	ENST00000343111	p.A193V	c.578	0.09424664	7.787	1
618 MAPK9	ENST00000343111	p.E195V	c.584	0.212244016	6.587	1
618 MAPK9	ENST00000343111	p.E204K	c.610	0.140646839	8.883	1
618 MAPK9	ENST00000343111	p.V206M	c.616	1.102279631	0	1
618 MAPK9	ENST00000343111	p.V206M	c.616	1.102279631	0	1
618 MAPK9	ENST00000343111	p.R309Q	c.926	0.381389688	3.872	1
619 SERPINB2	ENST00000457692	p.A390T	c.1168	0.109095794	3.324	1
619 SERPINB2	ENST00000457692	p.M235I	c.705	0.101765136	3.434	1
619 SERPINB2	ENST00000457692	p.P310A	c.928	0.192382321	0	1
620 NAGK	ENST00000455662	p.A209T	c.625	0.002939935	8.41	1

620	NAGK	ENST00000455662	p.Y279H	c.835	0.002939935	0	1
621	SMAD4	ENST00000342988	p.D355G	c.1064	0.695975198	6.069	1
621	SMAD4	ENST00000342988	p.P356L	c.1067	0.24808786	8.724	1
621	SMAD4	ENST00000342988	p.RFLCG361in_frame_del	c.1080_1094	17.70598522	0	1
621	SMAD4	ENST00000342988	p.R361C	c.1081	17.70598522	0	5
621	SMAD4	ENST00000342988	p.R361S	c.1081	17.70598522	0	1
621	SMAD4	ENST00000342988	p.R361H	c.1082	17.70598522	0	10
621	SMAD4	ENST00000342988	p.R361P	c.1082	17.70598522	0	1
621	SMAD4	ENST00000342988	p.D537Y	c.1609	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537G	c.1610	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537V	c.1610	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537E	c.1611	6.20480619	2.538	1
622	CTNNA1	ENST00000302763	p.R496C	c.1486	0.017124498	9.468	1
622	CTNNA1	ENST00000302763	p.D503N	c.1507	0.166216596	0	1
622	CTNNA1	ENST00000302763	p.R551Q	c.1652	0.162635358	2.725	1
622	CTNNA1	ENST00000302763	p.S558L	c.1673	0.029816297	6.205	1
623	SERPINE2	ENST00000409304	p.N96in_frame_del	c.290_288	0.017974167	7.849	1
623	SERPINE2	ENST00000409304	p.A113S	c.337	0.070450986	3.939	1
623	SERPINE2	ENST00000409304	p.V114M	c.340	0.106705232	3.634	1
623	SERPINE2	ENST00000409304	p.C136Y	c.407	0.151768837	0	1
623	SERPINE2	ENST00000409304	p.I327M	c.981	0.036067672	9.214	1
624	TLR5	ENST00000366881	p.S354L	c.1061	0.027406697	0	1
624	TLR5	ENST00000366881	p.D377N	c.1129	0.008355837	6.903	1
624	TLR5	ENST00000366881	p.A328T	c.982	0.019050861	5.714	1
625	SELE	ENST00000333360	p.A136T	c.406	0.135747732	0	1
625	SELE	ENST00000333360	p.S27C	c.80	0.135747732	2.881	1
626	GRM3	ENST00000361669	p.R352W	c.1054	2.314721489	0	1
626	GRM3	ENST00000361669	p.R352L	c.1055	2.314721489	0	1
626	GRM3	ENST00000361669	p.R352Q	c.1055	2.314721489	0	1
626	GRM3	ENST00000361669	p.S388Y	c.1163	0.080429222	8.667	1
626	GRM3	ENST00000361669	p.F45Y	c.134	0.32751148	3.942	1
626	GRM3	ENST00000361669	p.G58R	c.172	0.641666088	2.275	1
626	GRM3	ENST00000361669	p.G65R	c.193	0.183235895	4.892	1
626	GRM3	ENST00000361669	p.L96S	c.287	0.23578991	7.178	1
627	SLC2A5	ENST00000377424	p.N423S	c.1268	0.033261568	4.91	1
627	SLC2A5	ENST00000377424	p.V75M	c.223	0.033261568	0	1
628	REG1A	ENST00000233735	p.R54C	c.160	0.167166656	0	1
628	REG1A	ENST00000233735	p.F158L	c.474	0.105113562	3.346	1
628	REG1A	ENST00000233735	p.S159Y	c.476	0.075589607	3.861	1
629	SYT1	ENST00000393240	p.R400Q	c.1199	0.216184583	0	1
629	SYT1	ENST00000393240	p.S280F	c.839	0.043845085	4.749	1
629	SYT1	ENST00000393240	p.R282C	c.844	0.185652687	2.482	1
630	INPP5E	ENST00000371712	p.Q400H	c.1200	0.009638337	0	1
630	INPP5E	ENST00000371712	p.R468H	c.1403	0.009638337	6.697	1
631	HDC	ENST00000267845	p.S354G	c.1060	0.084956145	3.74	1
631	HDC	ENST00000267845	p.R358C	c.1072	0.075707786	6.283	1
631	HDC	ENST00000267845	p.T149M	c.446	0.222817908	0	1
631	HDC	ENST00000267845	p.C313S	c.937	0.055998929	5.868	1
631	HDC	ENST00000267845	p.T314P	c.940	0.148876296	3.083	1

632 CPB1	ENST00000282957	p.R178K	c.533	0.15361059	0	1
632 CPB1	ENST00000282957	p.R231Q	c.692	0.135128769	2.918	1
632 CPB1	ENST00000282957	p.H304Y	c.910	0.024118261	5.553	1
633 CD180	ENST00000256447	p.D381N	c.1141	0.031371573	7.879	1
633 CD180	ENST00000256447	p.T430P	c.1288	1.109445931	0	1
633 CD180	ENST00000256447	p.T430I	c.1289	1.109445931	0	1
633 CD180	ENST00000256447	p.C455R	c.1363	0.242514073	3.279	1
633 CD180	ENST00000256447	p.G478E	c.1433	0.02549359	8.843	1
634 KIR3DL1	ENST00000541392	p.R41Q	c.122	0.256301738	3.029	1
634 KIR3DL1	ENST00000541392	p.G42E	c.125	0.016911823	6.273	1
634 KIR3DL1	ENST00000541392	p.T118P	c.352	0.385327019	0	1
634 KIR3DL1	ENST00000541392	p.G119E	c.356	0.281146596	6.294	1
634 KIR3DL1	ENST00000541392	p.P124T	c.370	0.183109426	7.315	1
634 KIR3DL1	ENST00000541392	p.Y196D	c.586	0.215192912	3.366	1
634 KIR3DL1	ENST00000541392	p.G197S	c.589	0.077490714	7.411	1
634 KIR3DL1	ENST00000541392	p.L206M	c.616	0.228450636	3.501	1
634 KIR3DL1	ENST00000541392	p.P209H	c.626	0.129226396	4.656	1
635 MAP2K6	ENST00000590474	p.D99N	c.295	0.038821509	4.687	1
635 MAP2K6	ENST00000590474	p.F111I	c.331	0.017474014	6.871	1
635 MAP2K6	ENST00000590474	p.D197N	c.589	0.047364755	0	1
636 TARS	ENST00000265112	p.G341V	c.1022	0.122219029	0	1
636 TARS	ENST00000265112	p.G451A	c.1352	0.036988458	5.547	1
636 TARS	ENST00000265112	p.R457K	c.1370	0.102986858	3.31	1
637 KPNB1	ENST00000540627	p.L407F	c.1221	0.149047709	0	1
637 KPNB1	ENST00000540627	p.I458M	c.1374	0.085586471	3.821	1
637 KPNB1	ENST00000540627	p.V461M	c.1381	0.090940815	3.675	1
638 CDC25A	ENST00000302506	p.V408A	c.1223	0.318640157	2.65	1
638 CDC25A	ENST00000302506	p.R443W	c.1327	1.159320078	0	1
638 CDC25A	ENST00000302506	p.R443Q	c.1328	1.159320078	0	1
639 DPYSL2	ENST00000311151	p.V166M	c.496	0.021448194	5.543	1
639 DPYSL2	ENST00000311151	p.A199T	c.595	0.021448194	0	1
640 FSHR	ENST00000406846	p.S67L	c.200	0.085200163	3.553	1
640 FSHR	ENST00000406846	p.D89H	c.265	0.102430511	0	1
640 FSHR	ENST00000406846	p.Y110H	c.328	0.016037311	7.075	1
640 FSHR	ENST00000406846	p.K140M	c.419	0.009813612	6.671	1
641 PDE1B	ENST00000243052	p.S249L	c.746	0.03453014	4.856	1
641 PDE1B	ENST00000243052	p.E322K	c.964	0.03453014	0	1
642 EPB41	ENST00000373798	p.E124K	c.370	0.02551547	0	1
642 EPB41	ENST00000373798	p.Q159E	c.475	0.014558444	6.102	1
642 EPB41	ENST00000373798	p.G173E	c.518	0.010957025	6.512	1
643 IFNB1	ENST00000380232	p.H118R	c.353	0.102715422	0	1
643 IFNB1	ENST00000380232	p.H142P	c.425	0.082123884	3.638	1
643 IFNB1	ENST00000380232	p.R145I	c.434	0.024188513	5.481	1
644 NTRK3	ENST00000360948	p.R535M	c.1604	0.05105762	5.915	1
644 NTRK3	ENST00000360948	p.D609N	c.1825	1.016573246	0	2
645 PLCB3	ENST00000279230	p.R359H	c.1076	0.075170052	0	1
645 PLCB3	ENST00000279230	p.P405A	c.1213	0.044543381	4.524	1
645 PLCB3	ENST00000279230	p.L410I	c.1228	0.025887192	5.333	1
645 PLCB3	ENST00000279230	p.S411F	c.1232	0.013224269	7.18	1

646 ACE	ENST00000290866	p.D365H	c.1093	0.040960233	5.661	1
646 ACE	ENST00000290866	p.R410W	c.1228	1.092257471	0	1
646 ACE	ENST00000290866	p.R410L	c.1229	1.092257471	0	1
646 ACE	ENST00000290866	p.S449N	c.1346	0.156329512	3.786	1
647 SARS	ENST00000369923	p.A186V	c.557	0.017998244	6.796	1
647 SARS	ENST00000369923	p.P226L	c.677	1.008999122	0	2
648 CLTC	ENST00000269122	p.R350T	c.1049	0.114546081	0	1
648 CLTC	ENST00000269122	p.D286V	c.857	0.114546081	3.126	1
649 CAMKMT	ENST00000378494	p.D226N	c.676	0.244246388	5.602	1
649 CAMKMT	ENST00000378494	p.M229V	c.685	0.051296351	5.285	1
649 CAMKMT	ENST00000378494	p.G255R	c.763	0.116241616	8.899	1
649 CAMKMT	ENST00000378494	p.A257V	c.770	1.048331684	0	2
651 SEPSECS	ENST00000382103	p.M179I	c.537	0.007998804	6.966	1
651 SEPSECS	ENST00000382103	p.A182T	c.544	0.012700244	6.299	1
651 SEPSECS	ENST00000382103	p.L218M	c.652	0.020699048	0	1
652 GRIA2	ENST00000296526	p.E377V	c.1130	0.100267544	3.501	1
652 GRIA2	ENST00000296526	p.L378I	c.1132	0.147124787	2.887	1
652 GRIA2	ENST00000296526	p.V257D	c.770	0.223511448	0	1
653 PIK3CG	ENST00000496166	p.V937A	c.2810	0.14806553	5.763	1
653 PIK3CG	ENST00000496166	p.Y1017H	c.3049	0.119821887	9.114	1
653 PIK3CG	ENST00000496166	p.L1018V	c.3052	1.02021941	0	2
654 SEC24C	ENST00000345254	p.V510I	c.1528	0.009024108	6.792	1
654 SEC24C	ENST00000345254	p.R516M	c.1547	0.005380664	7.538	1
654 SEC24C	ENST00000345254	p.R613M	c.1838	0.014404772	0	1
655 TNFSF10	ENST00000241261	p.S186F	c.557	0.118339204	0	1
655 TNFSF10	ENST00000241261	p.I242F	c.724	0.118339204	3.079	1
656 CTDSPL	ENST00000273179	p.E98K	c.292	0.068440779	0	1
656 CTDSPL	ENST00000273179	p.R213W	c.637	0.068440779	3.869	1
657 DPYS	ENST00000351513	p.N195I	c.584	0.094666645	0	1
657 DPYS	ENST00000351513	p.V225A	c.674	0.094666645	3.401	1
658 NKTR	ENST00000232978	p.N38D	c.112	0.104024842	0	1
658 NKTR	ENST00000232978	p.S88L	c.263	0.104024842	3.265	1
659 ALDH3A1	ENST00000444455	p.S369I	c.1106	0.07889544	3.767	1
659 ALDH3A1	ENST00000444455	p.L433V	c.1297	0.147523069	0	1
659 ALDH3A1	ENST00000444455	p.R231H	c.692	0.079508968	3.755	1
660 EPHA2	ENST00000358432	p.T647M	c.1940	0.050906723	4.296	1
660 EPHA2	ENST00000358432	p.P687L	c.2060	0.050906723	0	1
661 TRPV2	ENST00000338560	p.Y270H	c.808	0.032061817	4.963	1
661 TRPV2	ENST00000338560	p.R316Q	c.947	0.032061817	0	1
662 IL7R	ENST00000303115	p.S44I	c.131	0.040639839	9.251	1
662 IL7R	ENST00000303115	p.Q45H	c.135	0.039164558	9.626	1
662 IL7R	ENST00000303115	p.S54L	c.161	1.079549729	0	2
662 IL7R	ENST00000303115	p.Y92C	c.275	0.119977893	7.731	1
662 IL7R	ENST00000303115	p.K97N	c.291	0.017039183	6.875	1
662 IL7R	ENST00000303115	p.F99L	c.297	0.180374559	3.979	1
663 GCH1	ENST00000491895	p.E128D	c.384	0.153079462	0	1
663 GCH1	ENST00000491895	p.E183Q	c.547	0.015778621	6.115	1
663 GCH1	ENST00000491895	p.L231M	c.691	0.050295806	4.473	1
663 GCH1	ENST00000491895	p.R235L	c.704	0.099189066	3.417	1

664 CYP2E1	ENST00000252945	p.V388L	c.1162	0.014717805	6.221	1
664 CYP2E1	ENST00000252945	p.V390A	c.1169	0.099181302	3.353	1
664 CYP2E1	ENST00000252945	p.A89V	c.266	0.111275077	0	1
665 ECI1	ENST00000301729	p.K63N	c.189	0.048260946	4.373	1
665 ECI1	ENST00000301729	p.R100C	c.298	0.061147408	0	1
665 ECI1	ENST00000301729	p.G148E	c.443	0.012886462	6.278	1
666 PTPRD	ENST00000356435	p.A545V	c.1634	0.211958501	2.592	1
666 PTPRD	ENST00000356435	p.N546K	c.1638	0.324072647	1.847	1
666 PTPRD	ENST00000356435	p.R588L	c.1763	0.443825432	0	1
667 PCK1	ENST00000319441	p.A281T	c.841	0.055100908	5.852	1
667 PCK1	ENST00000319441	p.A325T	c.973	1.017313005	0	2
668 RAB25	ENST00000361084	p.A88T	c.262	0.138024856	0	1
668 RAB25	ENST00000361084	p.M121I	c.363	0.138024856	2.857	1
669 TBC1D22A	ENST00000337137	p.R437C	c.1309	0.131761888	0	1
669 TBC1D22A	ENST00000337137	p.A499V	c.1496	0.008528811	7.55	1
669 TBC1D22A	ENST00000337137	p.S221F	c.662_663	0.097964794	3.39	1
669 TBC1D22A	ENST00000337137	p.I223M	c.669	0.032669147	5.212	1
669 TBC1D22A	ENST00000337137	p.P224S	c.670	0.004055232	7.946	1
670 HS3ST5	ENST00000312719	p.A93T	c.277	0.110358039	3.254	1
670 HS3ST5	ENST00000312719	p.I96T	c.287	0.094598693	5.435	1
670 HS3ST5	ENST00000312719	p.E122K	c.364	0.03282213	5.073	1
670 HS3ST5	ENST00000312719	p.E154Q	c.460	0.159240908	0	1
670 HS3ST5	ENST00000312719	p.Y159H	c.475	0.070656638	9.291	1
671 CRMP1	ENST00000324989	p.A485V	c.1454	0.021525383	6.304	1
671 CRMP1	ENST00000324989	p.A485V	c.1454	0.062832596	4.052	1
671 CRMP1	ENST00000324989	p.I598M	c.1794	0.072943691	0	1
672 HDAC3	ENST00000305264	p.N148S	c.443	0.077643018	3.687	1
672 HDAC3	ENST00000305264	p.G176R	c.526	0.077643018	0	1
673 MGMT	ENST00000306010	p.K39R	c.116	0.155149033	0	1
673 MGMT	ENST00000306010	p.A82V	c.245	0.080384562	3.749	1
673 MGMT	ENST00000306010	p.P87L	c.260	0.086779633	3.63	1
674 DPYS	ENST00000351513	p.R118Q	c.353	3.014477938	0	4
674 DPYS	ENST00000351513	p.K153E	c.457	0.127792365	6.11	1
675 EPHB1	ENST00000398015	p.E668A	c.2003	0.280130422	3.448	1
675 EPHB1	ENST00000398015	p.R682L	c.2045	0.007387127	8.891	1
675 EPHB1	ENST00000398015	p.A704T	c.2110	0.178912843	9	1
675 EPHB1	ENST00000398015	p.D762N	c.2284	2.097152655	0	2
675 EPHB1	ENST00000398015	p.D762E	c.2286	2.097152655	0	1
675 EPHB1	ENST00000398015	p.D806N	c.2416	0.281503633	9.419	1
676 CHEK2	ENST00000382580	p.R389C	c.1165	4.882928745	2.936	1
676 CHEK2	ENST00000382580	p.R389G	c.1165	4.882928745	2.936	1
676 CHEK2	ENST00000382580	p.R389H	c.1166	4.882928745	2.936	1
676 CHEK2	ENST00000382580	p.K416E	c.1246	20.48681924	0	21
676 CHEK2	ENST00000382580	p.L434F	c.1302	0.154397858	8.18	1
676 CHEK2	ENST00000382580	p.Y447C	c.1340	1.381239623	4.315	1
676 CHEK2	ENST00000382580	p.I319S	c.956	0.881715083	4.604	1
677 PLA2G7	ENST00000274793	p.S349L	c.1046	0.00756733	0	1
677 PLA2G7	ENST00000274793	p.Q323P	c.968	0.00756733	7.046	1
678 ANXA6	ENST00000354546	p.R11Q	c.32	0.088879838	0	1

678 ANXA6	ENST00000354546	p.R281H	c.842	0.088879838	3.492	1
679 SERPINA5	ENST00000554866	p.K350I	c.1049	0.177666694	0	1
679 SERPINA5	ENST00000554866	p.I72M	c.216	0.085010245	6.818	1
679 SERPINA5	ENST00000554866	p.D186N	c.556	0.046836194	4.769	1
679 SERPINA5	ENST00000554866	p.S311F	c.932	0.143457979	2.92	1
680 GIPC2	ENST00000370759	p.H161D	c.481	0.10103052	9.197	1
680 GIPC2	ENST00000370759	p.R174H	c.521	1.020636219	0	2
680 GIPC2	ENST00000370759	p.P198L	c.593	0.167873782	5.723	1
681 NEDD8	ENST00000396828	p.V23M	c.67	0.183308913	8.796	1
681 NEDD8	ENST00000396828	p.R25Q	c.74	1.015581438	0	2
682 PLA2G7	ENST00000274793	p.K386T	c.1157	0.013243163	9.989	1
682 PLA2G7	ENST00000274793	p.Y63N	c.187	0.160308746	0	1
682 PLA2G7	ENST00000274793	p.P86A	c.256	0.096817737	3.661	1
682 PLA2G7	ENST00000274793	p.H170R	c.509	0.11029163	3.639	1
683 FCGR2B	ENST00000358671	p.L62F	c.184	1.003754926	0	1
683 FCGR2B	ENST00000358671	p.L62P	c.185	1.003754926	0	1
683 FCGR2B	ENST00000358671	p.D107Y	c.319	0.007509851	8.057	1
684 DARS	ENST00000264161	p.M491I	c.1473	0.014784579	6.781	1
684 DARS	ENST00000264161	p.P493S	c.1477	0.0213017	6.438	1
684 DARS	ENST00000264161	p.R494C	c.1480	0.093787821	3.431	1
684 DARS	ENST00000264161	p.P221S	c.661	0.113345316	0	1
685 HNF1A	ENST00000541395	p.M154T	c.461	0.017938165	5.974	1
685 HNF1A	ENST00000541395	p.R159L	c.476	0.129567104	2.971	1
686 MAPK1	ENST00000398822	p.E81K	c.241	0.200157118	6.81	1
686 MAPK1	ENST00000398822	p.G136E	c.407	0.084863716	6.479	1
686 MAPK1	ENST00000398822	p.D162G	c.485	0.140175585	9.741	1
686 MAPK1	ENST00000398822	p.E322K	c.964	5.021291362	0	6
687 LCK	ENST00000333070	p.P433S	c.1297	0.137833645	0	1
687 LCK	ENST00000333070	p.V479M	c.1435	0.137833645	2.859	1
688 CD40LG	ENST00000370629	p.T135A	c.403	0.113125808	0	1
688 CD40LG	ENST00000370629	p.P244Q	c.731	0.113125808	3.144	1
689 FOLH1	ENST00000256999	p.R730K	c.2189	0.044531268	6.074	1
689 FOLH1	ENST00000256999	p.R281C	c.841	2.014843756	0	2
689 FOLH1	ENST00000256999	p.R281L	c.842	2.014843756	0	1
691 PIK3CG	ENST00000496166	p.S190R	c.570	0.021433536	9.462	1
691 PIK3CG	ENST00000496166	p.R191S	c.571	1.100678896	0	1
691 PIK3CG	ENST00000496166	p.R191H	c.572	1.100678896	0	1
691 PIK3CG	ENST00000496166	p.D192G	c.575	0.033961279	9.658	1
691 PIK3CG	ENST00000496166	p.A197V	c.590	0.230921179	6.433	1
691 PIK3CG	ENST00000496166	p.D316H	c.946	0.346840107	3.532	1
692 RBBP7	ENST00000380084	p.V341L	c.1021	0.016401823	6.93	1
692 RBBP7	ENST00000380084	p.E357K	c.1069	1.035724135	5.936	2
692 RBBP7	ENST00000380084	p.S358Y	c.1073	0.175634946	3.71	1
692 RBBP7	ENST00000380084	p.H359Y	c.1075	0.319494995	3.175	1
692 RBBP7	ENST00000380084	p.R384H	c.1151	0.196002664	6.84	1
692 RBBP7	ENST00000380084	p.N386H	c.1156	1.272037778	0	1
692 RBBP7	ENST00000380084	p.N386T	c.1157	1.272037778	0	1
692 RBBP7	ENST00000380084	p.H413L	c.1238	0.171005195	4.824	1
693 BCHE	ENST00000264381	p.F446L	c.1338	0.051904377	4.268	1

693 BCHE	ENST00000264381	p.R452Q	c.1355	0.013744517	6.185	1
693 BCHE	ENST00000264381	p.K527R	c.1580	0.065648893	0	1
694 MTOR	ENST00000361445	p.I1973F	c.5917	1.19445244	9.173	2
694 MTOR	ENST00000361445	p.Y1974C	c.5921	0.102465026	7.87	1
694 MTOR	ENST00000361445	p.T1977K	c.5930	1.23756125	0	1
694 MTOR	ENST00000361445	p.T1977R	c.5930	1.23756125	0	1
694 MTOR	ENST00000361445	p.V2006I	c.6016	1.18869246	5.197	1
694 MTOR	ENST00000361445	p.V2006L	c.6016	1.18869246	5.197	1
694 MTOR	ENST00000361445	p.S2013G	c.6037	0.437907708	2.79	1
694 MTOR	ENST00000361445	p.L2230V	c.6688	0.20136454	5.025	1
695 PIWIL1	ENST00000245255	p.G373V	c.1118	0.274142897	1.867	1
695 PIWIL1	ENST00000245255	p.R397H	c.1190	0.274142897	0	1
696 SOS1	ENST00000426016	p.E433K	c.1297	0.020655668	5.773	1
696 SOS1	ENST00000426016	p.C441Y	c.1322	0.14152912	2.949	1
696 SOS1	ENST00000426016	p.M446L	c.1336	0.010640292	6.73	1
696 SOS1	ENST00000426016	p.L463I	c.1387	0.009536539	9.837	1
696 SOS1	ENST00000426016	p.L467V	c.1399	0.15829907	0	1
697 CXCR1	ENST00000295683	p.P180A	c.538	1.030018589	0	1
697 CXCR1	ENST00000295683	p.P180S	c.538	1.030018589	0	1
697 CXCR1	ENST00000295683	p.R280C	c.838	0.060037179	5.058	1
698 CBL	ENST00000264033	p.C384W	c.1152	0.019357011	5.691	1
698 CBL	ENST00000264033	p.F418L	c.1252	0.019357011	0	1
699 KIF2C	ENST00000372224	p.Y405C	c.1214	0.061853541	4.015	1
699 KIF2C	ENST00000372224	p.S470F	c.1409	0.061853541	0	1
700 PACSIN1	ENST00000538621	p.M224I	c.672	0.011274543	0	1
700 PACSIN1	ENST00000538621	p.R288C	c.862	0.005291894	7.562	1
700 PACSIN1	ENST00000538621	p.M295I	c.885	0.005982648	7.385	1
701 RANBP2	ENST00000283195	p.E2030K	c.6088	0.048150948	0	1
701 RANBP2	ENST00000283195	p.L2063F	c.6187	0.024484287	5.352	1
701 RANBP2	ENST00000283195	p.E2066K	c.6196	0.023666661	5.401	1
702 SPHK1	ENST00000323374	p.M431I	c.1293	0.088265461	0	1
702 SPHK1	ENST00000323374	p.T243A	c.727	0.077481731	3.69	1
702 SPHK1	ENST00000323374	p.A256T	c.766	0.010783729	6.535	1
703 PTPRM	ENST00000400060	p.E1031Q	c.3091	0.006924857	7.174	1
703 PTPRM	ENST00000400060	p.I1032L	c.3094	0.017668158	5.923	1
703 PTPRM	ENST00000400060	p.D1035G	c.3104	0.073179537	3.796	1
703 PTPRM	ENST00000400060	p.E1057Q	c.3169	0.095399433	0	1
704 MAOA	ENST00000338702	p.G103E	c.308	0.06882135	3.861	1
704 MAOA	ENST00000338702	p.D328Y	c.982	0.06882135	0	1
705 CA12	ENST00000178638	p.P57S	c.169	0.034114487	7.197	1
705 CA12	ENST00000178638	p.S164L	c.491	0.1045308	3.258	1
705 CA12	ENST00000178638	p.P232T	c.694	0.111346134	0	1
706 FSCN1	ENST00000382361	p.R344H	c.1031	1.008460743	0	2
706 FSCN1	ENST00000382361	p.E374D	c.1122	0.036006145	6.885	1
707 NT5E	ENST00000257770	p.Q351E	c.1051	0.129947429	2.944	1
707 NT5E	ENST00000257770	p.Y281H	c.841	0.129947429	0	1
708 CLEC5A	ENST00000546910	p.E76K	c.226	1.019922276	6.914	2
708 CLEC5A	ENST00000546910	p.F77L	c.231	0.006810611	8.198	1
708 CLEC5A	ENST00000546910	p.F83I	c.247	0.129126048	3.993	1

708 CLECSA	ENST00000546910	p.L118F	c.352	1.086376079	0	1
708 CLECSA	ENST00000546910	p.L118V	c.352	1.086376079	0	1
708 CLECSA	ENST00000546910	p.T167A	c.499	0.01935603	8.125	1
709 BBOX1	ENST00000525090	p.F176V	c.526	1.009545259	0	2
709 BBOX1	ENST00000525090	p.D204N	c.610	0.019090517	6.711	1
710 PANK3	ENST00000239231	p.R49W	c.145	0.014013877	6.157	1
710 PANK3	ENST00000239231	p.R78Q	c.233	0.005652089	7.467	1
710 PANK3	ENST00000239231	p.P12L	c.35_34	0.019665967	0	1
711 CSNK1E	ENST00000400206	p.R98H	c.293	1.04584641	0	2
711 CSNK1E	ENST00000400206	p.R178H	c.533	0.083388948	4.584	1
711 CSNK1E	ENST00000400206	p.M204Q	c.611_610	0.008303872	7.912	1
712 PFKFB1	ENST00000375006	p.E386D	c.1158	0.156743347	2.709	1
712 PFKFB1	ENST00000375006	p.F404S	c.1211	0.032341956	5.328	1
712 PFKFB1	ENST00000375006	p.R252H	c.755	0.177831008	0	1
713 CTNNA1	ENST00000302763	p.K409N	c.1227	0.004906806	7.671	1
713 CTNNA1	ENST00000302763	p.A473T	c.1417	0.023513944	0	1
713 CTNNA1	ENST00000302763	p.A236T	c.706	0.018607138	5.748	1
714 NR1I3	ENST00000367979	p.F129S	c.386	0.1468048	4.164	1
714 NR1I3	ENST00000367979	p.F167L	c.501	0.026042395	9.764	1
714 NR1I3	ENST00000367979	p.G220R	c.658	1.056934306	0	1
714 NR1I3	ENST00000367979	p.G220W	c.658	1.056934306	0	1
715 BCHE	ENST00000264381	p.L138W	c.413	0.164367845	2.605	1
715 BCHE	ENST00000264381	p.V169A	c.506	0.164367845	0	1
716 LIFR	ENST00000263409	p.S368N	c.1103	0.007817917	6.999	1
716 LIFR	ENST00000263409	p.S419L	c.1256	0.007817917	0	1
717 KCNIP1	ENST00000434108	p.D72N	c.214	0.014189819	6.139	1
717 KCNIP1	ENST00000434108	p.F120V	c.358	0.014189819	0	1
718 POT1	ENST00000357628	p.S178L	c.533	0.031185085	0	1
718 POT1	ENST00000357628	p.D224H	c.670	0.031185085	5.003	1
719 PVRL4	ENST00000368012	p.S170C	c.509	0.081920934	0	1
719 PVRL4	ENST00000368012	p.S206L	c.617	0.081228116	3.644	1
719 PVRL4	ENST00000368012	p.T222I	c.665	0.07492687	9.018	1
721 IDE	ENST00000265986	p.K119N	c.357	0.059954007	5.06	1
721 IDE	ENST00000265986	p.K273Q	c.817	1.029977004	0	2
722 PRKCCQ	ENST00000263125	p.E161K	c.481	0.215237297	2.216	1
722 PRKCCQ	ENST00000263125	p.R191Q	c.572	0.215237297	0	1
723 TIAM1	ENST00000286827	p.A439T	c.1315	1.011630041	0	2
723 TIAM1	ENST00000286827	p.F515L	c.1545	0.039753109	6.426	1
724 CARM1	ENST00000327064	p.S461F	c.1382	0.162042794	2.659	1
724 CARM1	ENST00000327064	p.S463F	c.1388	0.027167873	5.414	1
724 CARM1	ENST00000327064	p.S317F	c.950	0.181783643	0	1
725 USP4	ENST00000265560	p.S394Y	c.1181	0.11474292	0	1
725 USP4	ENST00000265560	p.S315C	c.944	0.045673372	4.553	1
725 USP4	ENST00000265560	p.A316T	c.946	0.075216129	3.793	1
727 HSD11B1	ENST00000367027	p.G58R	c.172	1.185672987	0	1
727 HSD11B1	ENST00000367027	p.G58E	c.173	1.185672987	0	1
727 HSD11B1	ENST00000367027	p.T92P	c.274	0.205821895	3.342	1
727 HSD11B1	ENST00000367027	p.L109F	c.325	0.065601672	6.519	1
727 HSD11B1	ENST00000367027	p.H232Y	c.694	0.159811134	3.715	1

728 SUPV3L1	ENST00000359655	p.N363S	c.1088	1.012464769	0	2
728 SUPV3L1	ENST00000359655	p.R388Q	c.1163	0.024929539	6.326	1
729 ASMT	ENST00000381241	p.G337R	c.1009	0.086269835	0	1
729 ASMT	ENST00000381241	p.W285C	c.855	0.086269835	3.535	1
731 CAT	ENST00000241052	p.D335N	c.1003	0.019885428	6.746	1
731 CAT	ENST00000241052	p.R363C	c.1087	1.151455828	0	1
731 CAT	ENST00000241052	p.R363H	c.1088	1.151455828	0	1
731 CAT	ENST00000241052	p.N369S	c.1106	0.030461454	9.973	1
731 CAT	ENST00000241052	p.E67V	c.200_201	0.277527403	2.895	1
731 CAT	ENST00000241052	p.R72T	c.215	0.156249514	7.22	1
732 PTRN2	ENST00000404321	p.A780V	c.2339	0.027091799	6.206	1
732 PTRN2	ENST00000404321	p.E1002K	c.3004	1.013545899	0	2
733 OPN1LW	ENST00000369951	p.E41K	c.121	0.027546255	0	1
733 OPN1LW	ENST00000369951	p.F119L	c.357	0.027546255	5.182	1
734 SUPV3L1	ENST00000359655	p.V289G	c.866	0.023765293	0	1
734 SUPV3L1	ENST00000359655	p.L319V	c.955	0.023765293	5.395	1
735 TGFBI	ENST00000442011	p.T504N	c.1511	0.31105199	1.778	1
735 TGFBI	ENST00000442011	p.G535E	c.1604	0.086218735	3.905	1
735 TGFBI	ENST00000442011	p.T621P	c.1861	0.35834143	0	1
736 RNASEL	ENST00000444138	p.R400H	c.1199	0.015248299	7.136	1
736 RNASEL	ENST00000444138	p.R403L	c.1208	0.116207922	3.124	1
736 RNASEL	ENST00000444138	p.D485Y	c.1453	0.041379943	6.254	1
736 RNASEL	ENST00000444138	p.S507N	c.1520	0.134917291	0	1
737 FANCL	ENST00000402135	p.T372I	c.1115	0.006857983	7.188	1
737 FANCL	ENST00000402135	p.M310V	c.928	0.006857983	0	1
738 MASP1	ENST00000296280	p.H64Y	c.190	0.032617601	0	1
738 MASP1	ENST00000296280	p.A133V	c.398	0.032285152	5.407	1
738 MASP1	ENST00000296280	p.H134L	c.401	0.009049163	6.788	1
739 SERPINA7	ENST00000327674	p.F51L	c.153	0.076415017	3.71	1
739 SERPINA7	ENST00000327674	p.L289Q	c.866	0.076415017	0	1
740 RNMT	ENST00000592764	p.K194N	c.582	0.002781348	0	1
740 RNMT	ENST00000592764	p.S232F	c.695	0.002781348	8.49	1
741 C8A	ENST00000361249	p.D139N	c.415	0.037173031	6.408	1
741 C8A	ENST00000361249	p.E144K	c.430	0.412892274	2.515	1
741 C8A	ENST00000361249	p.E203D	c.609	0.125986473	9.059	1
741 C8A	ENST00000361249	p.Y205H	c.613	0.179048741	6.964	1
741 C8A	ENST00000361249	p.R207W	c.619	1.196609049	0	1
741 C8A	ENST00000361249	p.R207Q	c.620_621	1.196609049	0	1
742 HSD17B4	ENST00000504811	p.E103in_frame_del	c.304_306	0.007365504	0	1
742 HSD17B4	ENST00000504811	p.R146I	c.437	0.007365504	7.085	1
743 SIRT3	ENST00000382743	p.F192L	c.574	0.071497925	0	1
743 SIRT3	ENST00000382743	p.V286I	c.856	0.010791207	6.534	1
743 SIRT3	ENST00000382743	p.K288E	c.862	0.060706718	4.042	1
744 PARP3	ENST00000398755	p.L453M	c.1357	0.082260665	3.768	1
744 PARP3	ENST00000398755	p.E456V	c.1367	0.12951517	3.051	1
744 PARP3	ENST00000398755	p.I477V	c.1429	0.194062251	0	1
745 CD46	ENST00000322875	p.C35G	c.103	0.038809268	0	1
745 CD46	ENST00000322875	p.R82Q	c.245	0.021448194	5.543	1
745 CD46	ENST00000322875	p.P12S	c.34	0.017361074	5.848	1

746 SAMHD1	ENST00000262878	p.P121S	c.361	0.074325445	3.75	1
746 SAMHD1	ENST00000262878	p.G324E	c.971	0.074325445	0	1
747 PLG	ENST00000308192	p.V581A	c.1742	0.231328469	0	1
747 PLG	ENST00000308192	p.G705R	c.2113	0.126182674	3.148	1
747 PLG	ENST00000308192	p.T710N	c.2129	0.074992637	3.96	1
747 PLG	ENST00000308192	p.A719V	c.2156	0.063866348	4.204	1
748 CASK	ENST00000318588	p.R61P	c.182	0.152724138	0	1
748 CASK	ENST00000318588	p.A166P	c.496	0.152724138	2.711	1
749 CDK8	ENST00000381527	p.S60P	c.178	0.030374406	6.041	1
749 CDK8	ENST00000381527	p.A63T	c.187	0.075729541	4.723	1
749 CDK8	ENST00000381527	p.V93M	c.276_277	1.053051974	0	1
749 CDK8	ENST00000381527	p.V93L	c.277	1.053051974	0	1
750 GPX5	ENST00000412168	p.H158N	c.472	0.092638254	7.636	1
750 GPX5	ENST00000412168	p.P159S	c.475	1.065902569	0	1
750 GPX5	ENST00000412168	p.P159L	c.476_477	1.065902569	0	1
750 GPX5	ENST00000412168	p.R197C	c.589	0.204334184	4.038	1
751 C5	ENST00000223642	p.R539Q	c.1616	0.051724801	4.273	1
751 C5	ENST00000223642	p.L673I	c.2017	0.051724801	0	1
752 ROBO1	ENST00000464233	p.V810G	c.2429	0.053958722	4.212	1
752 ROBO1	ENST00000464233	p.A854S	c.2560	0.053958722	0	1
753 ITGAM	ENST00000544665	p.S158Y	c.473	0.518286868	2.943	1
753 ITGAM	ENST00000544665	p.G223W	c.667	0.196708874	5.743	1
753 ITGAM	ENST00000544665	p.R224L	c.671	1.180156158	0	1
753 ITGAM	ENST00000544665	p.R224Q	c.671	1.180156158	0	1
753 ITGAM	ENST00000544665	p.G244R	c.730	0.012808061	9.719	1
753 ITGAM	ENST00000544665	p.D258N	c.772	0.166326869	6.254	1
753 ITGAM	ENST00000544665	p.D264N	c.790	0.056894475	5.865	1
754 HMGCS2	ENST00000369406	p.R424L	c.1271	0.02110488	0	1
754 HMGCS2	ENST00000369406	p.V54M	c.160	0.005970221	7.388	1
754 HMGCS2	ENST00000369406	p.D294N	c.880	0.015134659	6.046	1
755 ANTXR2	ENST00000307333	p.F65L	c.195	0.007264101	7.105	1
755 ANTXR2	ENST00000307333	p.E71G	c.212	0.036701937	4.768	1
755 ANTXR2	ENST00000307333	p.L106F	c.318	0.043966038	0	1
756 CAPN9	ENST00000271971	p.Q91R	c.272	0.022143084	5.497	1
756 CAPN9	ENST00000271971	p.V158I	c.472	0.022143084	0	1
757 LRP6	ENST00000261349	p.D368N	c.1102	0.00709491	0	1
757 LRP6	ENST00000261349	p.N416S	c.1247	0.00709491	7.139	1
759 PITRM1	ENST00000380989	p.L352F	c.1054	0.011882647	0	1
759 PITRM1	ENST00000380989	p.E426K	c.1276	0.011882647	6.395	1
760 CYP2C9	ENST00000260682	p.R357T	c.1070	0.191236203	6.668	1
760 CYP2C9	ENST00000260682	p.P402S	c.1204	1.011201771	0	2
760 CYP2C9	ENST00000260682	p.P404T	c.1210	0.14633504	9.514	1
761 ALDH3A1	ENST00000444455	p.E420K	c.1258	0.0312813	6.205	1
761 ALDH3A1	ENST00000444455	p.M74I	c.222	0.148124369	0	1
761 ALDH3A1	ENST00000444455	p.A130V	c.389	0.117446954	3.139	1
761 ALDH3A1	ENST00000444455	p.A131V	c.392	0.03962738	5.57	1
762 FAP	ENST00000188790	p.D457N	c.1369	0.004250947	7.878	1
762 FAP	ENST00000188790	p.R109W	c.325	0.004250947	0	1
763 ADRBK1	ENST00000308595	p.R199C	c.595	0.009732324	6.683	1

763 ADRBK1	ENST00000308595	p.G200W	c.598	0.056367211	4.149	1
763 ADRBK1	ENST00000308595	p.R226C	c.676	0.066099535	0	1
764 PTPN13	ENST00000436978	p.G2199S	c.6595	0.135465746	0	1
764 PTPN13	ENST00000436978	p.E2480Q	c.7438	0.135465746	2.884	1
765 EML1	ENST00000334192	p.V764I	c.2290	0.014384122	0	1
765 EML1	ENST00000334192	p.F785L	c.2355	0.009335869	6.743	1
765 EML1	ENST00000334192	p.C789S	c.2365	0.005048253	7.63	1
766 MMP9	ENST00000372330	p.G404C	c.1209_1210	1.057764096	0	1
766 MMP9	ENST00000372330	p.G404S	c.1210	1.057764096	0	1
766 MMP9	ENST00000372330	p.A406T	c.1216	0.371693532	7.299	1
766 MMP9	ENST00000372330	p.A144S	c.430	1.050638786	6.158	1
766 MMP9	ENST00000372330	p.A144T	c.430	1.050638786	6.158	1
766 MMP9	ENST00000372330	p.P194T	c.580	0.341588099	5.417	1
767 A2M	ENST00000318602	p.S923L	c.2768	0.015382249	6.159	1
767 A2M	ENST00000318602	p.G952E	c.2855	0.11584586	3.334	1
767 A2M	ENST00000318602	p.D953G	c.2858	0.026358466	5.382	1
767 A2M	ENST00000318602	p.C1321Y	c.3962	0.13842217	0	1
767 A2M	ENST00000318602	p.L1324I	c.3970	0.014193855	9.609	1
768 EGFR	ENST00000275493	p.L62R	c.185	3.315453444	4.396	3
768 EGFR	ENST00000275493	p.G63R	c.187	1.337871862	8.752	1
768 EGFR	ENST00000275493	p.G63K	c.187_188	1.337871862	8.752	1
768 EGFR	ENST00000275493	p.E84V	c.251	1.983348841	4.67	1
768 EGFR	ENST00000275493	p.V85M	c.253	2.319236077	5.533	1
768 EGFR	ENST00000275493	p.R108G	c.322	7.383260425	3.531	1
768 EGFR	ENST00000275493	p.R108K	c.323	7.383260425	3.531	4
768 EGFR	ENST00000275493	p.R222C	c.664	4.707773717	8.599	5
768 EGFR	ENST00000275493	p.R252C	c.754	6.777874813	5.204	3
768 EGFR	ENST00000275493	p.R252P	c.755	6.777874813	5.204	3
768 EGFR	ENST00000275493	p.F254I	c.760	4.630001099	2.504	1
768 EGFR	ENST00000275493	p.D256Y	c.766	0.73400312	5.182	1
768 EGFR	ENST00000275493	p.C264Y	c.791	0.498008522	5.848	1
768 EGFR	ENST00000275493	p.A289T	c.865	25.04363397	0	6
768 EGFR	ENST00000275493	p.A289I	c.865_866	25.04363397	0	1
768 EGFR	ENST00000275493	p.A289N	c.865_866	25.04363397	0	1
768 EGFR	ENST00000275493	p.A289D	c.866	25.04363397	0	3
768 EGFR	ENST00000275493	p.A289V	c.866	25.04363397	0	14
768 EGFR	ENST00000275493	p.H304Y	c.910	2.172632678	8.916	3
769 SERPINA6	ENST00000341584	p.L156F	c.468	0.008408126	6.894	1
769 SERPINA6	ENST00000341584	p.W163R	c.487	0.051688961	4.274	1
769 SERPINA6	ENST00000341584	p.V196I	c.586	0.060097087	0	1
770 F11	ENST00000403665	p.S503C	c.1508	0.031805025	5.059	1
770 F11	ENST00000403665	p.S192F	c.575	0.062052848	4.053	1
770 F11	ENST00000403665	p.R284K	c.851	0.090243402	0	1
771 FASN	ENST00000306749	p.E2362K	c.7084	0.009400805	6.733	1
771 FASN	ENST00000306749	p.A2363V	c.7088	0.100481374	3.315	1
771 FASN	ENST00000306749	p.R2428H	c.7283	0.109882179	0	1
773 NEU2	ENST00000233840	p.A38T	c.112	0.071957754	4.215	1
773 NEU2	ENST00000233840	p.P87L	c.260	0.169670143	0	1
773 NEU2	ENST00000233840	p.G162E	c.485	0.122060214	3.11	1

774	NEO1	ENST00000339362	p.I455M	c.1365	0.033936933	0	1
774	NEO1	ENST00000339362	p.T507I	c.1520	0.033936933	4.881	1
775	PPP2R2A	ENST00000315985	p.V367D	c.1100	0.009739368	7.898	1
775	PPP2R2A	ENST00000315985	p.R262W	c.784	1.031511014	5.988	1
775	PPP2R2A	ENST00000315985	p.R262Q	c.785	1.031511014	5.988	1
775	PPP2R2A	ENST00000315985	p.M310T	c.929	1.035703437	0	1
775	PPP2R2A	ENST00000315985	p.M310I	c.930	1.035703437	0	1
776	RBP5	ENST00000266560	p.T51A	c.151	0.004422261	7.821	1
776	RBP5	ENST00000266560	p.E72G	c.215	0.004422261	0	1
777	MLH1	ENST00000231790	p.L588R	c.1763	0.008906041	6.811	1
777	MLH1	ENST00000231790	p.L590I	c.1768	0.078237279	3.676	1
777	MLH1	ENST00000231790	p.L658I	c.1972	0.08714332	0	1
778	C5	ENST00000223642	p.P60A	c.178	0.109207819	0	1
778	C5	ENST00000223642	p.R1308C	c.3922	0.08948861	3.513	1
778	C5	ENST00000223642	p.L1309F	c.3927	0.023505498	5.532	1
779	ADSL	ENST00000454266	p.R473T	c.1418	0.033990364	9.297	1
779	ADSL	ENST00000454266	p.S112Y	c.335	0.01539177	6.182	1
779	ADSL	ENST00000454266	p.N118D	c.352	0.133289941	3.089	1
779	ADSL	ENST00000454266	p.R210W	c.628	0.253425658	0	1
779	ADSL	ENST00000454266	p.G217C	c.649	0.145831673	7.734	1
779	ADSL	ENST00000454266	p.D237E	c.711	0.109223314	4.022	1
779	ADSL	ENST00000454266	p.R248K	c.743	0.027100916	5.844	1
779	ADSL	ENST00000454266	p.G254R	c.760	0.172600413	4.761	1
780	NCAM2	ENST00000400546	p.R77G	c.229	0.011048543	0	1
780	NCAM2	ENST00000400546	p.S26L	c.77	0.011048543	6.5	1
781	ACO1	ENST00000379923	p.R802H	c.2405	0.077636168	6.725	1
781	ACO1	ENST00000379923	p.R82C	c.244	0.205741621	3.295	1
781	ACO1	ENST00000379923	p.V202M	c.604	1.130707553	0	2
781	ACO1	ENST00000379923	p.E225K	c.673	0.112360526	5.69	1
782	MMP8	ENST00000236826	p.W140C	c.420	0.104191636	0	1
782	MMP8	ENST00000236826	p.H221N	c.661	0.026310795	5.359	1
782	MMP8	ENST00000236826	p.D253N	c.757	0.081770879	3.647	1
783	CSF3R	ENST00000440588	p.Q168H	c.504	0.044409126	4.493	1
783	CSF3R	ENST00000440588	p.W202S	c.605	0.044409126	0	1
784	BLMH	ENST00000261714	p.E400K	c.1198	0.026168953	5.256	1
784	BLMH	ENST00000261714	p.H402P	c.1205	0.019437687	6.684	1
784	BLMH	ENST00000261714	p.N66D	c.196	0.035894533	0	1
785	DCTD	ENST00000357067	p.F119V	c.355	0.005362049	7.543	1
785	DCTD	ENST00000357067	p.S146C	c.436	0.005362049	0	1
786	ALDH4A1	ENST00000290597	p.I121T	c.362	0.009252122	0	1
786	ALDH4A1	ENST00000290597	p.L180V	c.538	0.009252122	6.756	1
787	UPF2	ENST00000357604	p.H191N	c.571_570	1.005295564	0	2
787	UPF2	ENST00000357604	p.R232C	c.694	0.010591128	7.561	1
788	PIK3CA	ENST00000263967	p.T342S	c.1024	1.450583481	5.919	1
788	PIK3CA	ENST00000263967	p.V344M	c.1030	9.287951282	5.881	4
788	PIK3CA	ENST00000263967	p.V344A	c.1031	9.287951282	5.881	2
788	PIK3CA	ENST00000263967	p.V344G	c.1031	9.287951282	5.881	3
788	PIK3CA	ENST00000263967	p.N345I	c.1034	23.55777267	0	1
788	PIK3CA	ENST00000263967	p.N345T	c.1034	23.55777267	0	1

788 PIK3CA	ENST00000263967	p.N345K	c.1035	23.55777267	0	22
788 PIK3CA	ENST00000263967	p.C378R	c.1132	2.155005679	6.394	1
788 PIK3CA	ENST00000263967	p.C378Y	c.1133	2.155005679	6.394	1
788 PIK3CA	ENST00000263967	p.PVPHGLEDL447in_frame_del	c.1338_1364	2.514557644	4.275	2
788 PIK3CA	ENST00000263967	p.E469in_frame_insDK	c.1405_1406	0.512273887	6.155	1
788 PIK3CA	ENST00000263967	p.P471A	c.1411	6.175116951	3.6	1
788 PIK3CA	ENST00000263967	p.P471L	c.1412	6.175116951	3.6	2
789 CRYGS	ENST00000307944	p.R36C	c.106	1.35013908	0	1
789 CRYGS	ENST00000307944	p.R36H	c.107	1.35013908	0	1
789 CRYGS	ENST00000307944	p.R79C	c.235	0.70027816	1.514	1
790 ITGB4	ENST00000450894	p.R1037W	c.3109	0.219941727	2.549	1
790 ITGB4	ENST00000450894	p.R1077H	c.3230	0.458035078	0	1
790 ITGB4	ENST00000450894	p.I1102M	c.3306	0.321107806	1.887	1
790 ITGB4	ENST00000450894	p.D1104N	c.3310	0.024202715	5.896	1
791 CNP	ENST00000393892	p.G334S	c.1000	0.048900736	0	1
791 CNP	ENST00000393892	p.R245K	c.734	0.048900736	4.354	1
792 CRYBA4	ENST00000354760	p.F110I	c.328	1.157715805	0	1
792 CRYBA4	ENST00000354760	p.F110V	c.328	1.157715805	0	1
792 CRYBA4	ENST00000354760	p.E138K	c.412	0.099038106	5.196	1
792 CRYBA4	ENST00000354760	p.S141P	c.421	0.262164733	2.951	1
792 CRYBA4	ENST00000354760	p.Q187L	c.560	0.043184034	9.806	1
793 ERBB3	ENST00000267101	p.S345L	c.1034	0.108142086	0	1
793 ERBB3	ENST00000267101	p.A378P	c.1132	0.108142086	3.209	1
794 CYP11B2	ENST00000323110	p.L382F	c.1146	0.086809001	0	1
794 CYP11B2	ENST00000323110	p.F445I	c.1333	0.076150641	3.715	1
794 CYP11B2	ENST00000323110	p.R448S	c.1342	0.014162419	7.411	1
794 CYP11B2	ENST00000323110	p.M111I	c.333	0.013069187	7.708	1
796 PTPRN	ENST00000295718	p.M777I	c.2331	0.045562793	0	1
796 PTPRN	ENST00000295718	p.R928H	c.2783	0.045562793	4.456	1
797 CRYBB1	ENST00000215939	p.E65K	c.193	1.14958112	0	2
797 CRYBB1	ENST00000215939	p.R92H	c.275	0.299162241	2.741	1
798 ETF1	ENST00000360541	p.S77F	c.230	0.013030173	0	1
798 ETF1	ENST00000360541	p.D113Y	c.337	0.013030173	6.262	1
799 SRSF1	ENST00000584773	p.V123L	c.367	0.18893548	0	1
799 SRSF1	ENST00000584773	p.D151H	c.451	0.013046803	6.486	1
799 SRSF1	ENST00000584773	p.D176G	c.527	0.024090361	6.909	1
799 SRSF1	ENST00000584773	p.D195H	c.583	0.172758649	2.561	1
800 COL3A1	ENST00000304636	p.K1407R	c.4220	0.098550022	3.343	1
800 COL3A1	ENST00000304636	p.R1438I	c.4313	0.098550022	0	1
801 TLL1	ENST00000507499	p.E289K	c.865	0.268264783	0	1
801 TLL1	ENST00000507499	p.T330A	c.988	0.190273442	2.524	1
801 TLL1	ENST00000507499	p.L332V	c.994	0.110817733	3.405	1
802 CDC42	ENST00000344548	p.E62D	c.186	0.153679858	2.702	1
802 CDC42	ENST00000344548	p.K16R	c.47	0.153679858	0	1
803 PARP15	ENST00000464300	p.S536N	c.1607	0.117437837	3.191	1
803 PARP15	ENST00000464300	p.S577N	c.1730	0.122924176	0	1
803 PARP15	ENST00000464300	p.P637L	c.1910	0.021362435	6.219	1
804 PDE5A	ENST00000354960	p.I242V	c.724	0.027261335	0	1
804 PDE5A	ENST00000354960	p.L267I	c.799	0.027261335	5.197	1

805	GSTA2	ENST00000493422	p.E126D	c.378	0.064168097	3.962	1
805	GSTA2	ENST00000493422	p.A2T	c.4	0.064168097	0	1
806	EEF1A1	ENST00000316292	p.H349Y	c.1045	0.044718016	4.483	1
806	EEF1A1	ENST00000316292	p.T432I	c.1295	0.044718016	0	1
807	MAPK11	ENST00000330651	p.R149W	c.445	0.030905341	5.016	1
807	MAPK11	ENST00000330651	p.T185M	c.554	0.037474844	0	1
807	MAPK11	ENST00000330651	p.A221V	c.662	0.006569503	7.25	1
808	CCNDBP1	ENST00000300213	p.L240I	c.718	1.016596237	0	1
808	CCNDBP1	ENST00000300213	p.L240R	c.719	1.016596237	0	1
808	CCNDBP1	ENST00000300213	p.R305Q	c.914	0.033192475	5.913	1
809	CEL	ENST00000372080	p.G129E	c.386	0.102096124	3.292	1
809	CEL	ENST00000372080	p.G219A	c.656	0.102096124	0	1
810	TPP1	ENST00000299427	p.F356L	c.1066	0.098587241	7.802	1
810	TPP1	ENST00000299427	p.A357T	c.1069	0.209955897	0	1
810	TPP1	ENST00000299427	p.A380T	c.1138	0.157194304	3.276	1
810	TPP1	ENST00000299427	p.G389R	c.1165	0.061513686	5.227	1
810	TPP1	ENST00000299427	p.S475L	c.1424	0.0738755	3.935	1
810	TPP1	ENST00000299427	p.T322A	c.964	0.11672062	6.621	1
811	TLR4	ENST00000355622	p.S164Y	c.491	0.163272177	7.633	1
811	TLR4	ENST00000355622	p.K186N	c.558	0.048627205	6.823	1
811	TLR4	ENST00000355622	p.I187M	c.561	0.224688085	3.707	1
811	TLR4	ENST00000355622	p.M215T	c.644	1.09044412	0	1
811	TLR4	ENST00000355622	p.M215I	c.645	1.09044412	0	1
812	DICER1	ENST00000343455	p.F1650C	c.4949	0.009611651	6.701	1
812	DICER1	ENST00000343455	p.S1747L	c.5240	0.023242318	0	1
812	DICER1	ENST00000343455	p.D1801N	c.5401	0.013630667	6.197	1
813	PPIB	ENST00000300026	p.D56Y	c.166	0.028242273	0	1
813	PPIB	ENST00000300026	p.A200S	c.598	0.028242273	5.146	1
814	SMAD2	ENST00000402690	p.F356C	c.1067	0.17749685	0	1
814	SMAD2	ENST00000402690	p.R415I	c.1244	0.08892659	3.624	1
814	SMAD2	ENST00000402690	p.G421W	c.1261	0.104206094	3.375	1
815	ACBD4	ENST00000591859	p.Y46C	c.137	0.003428991	8.188	1
815	ACBD4	ENST00000591859	p.R58W	c.172	0.006596882	7.244	1
815	ACBD4	ENST00000591859	p.M79I	c.237	0.010025873	0	1
816	GSPT1	ENST00000563468	p.L215V	c.643	0.145165326	2.922	1
816	GSPT1	ENST00000563468	p.H257Y	c.769	0.208918637	0	1
816	GSPT1	ENST00000563468	p.Y279N	c.835	0.076722996	3.883	1
816	GSPT1	ENST00000563468	p.P283L	c.848	0.010407756	6.765	1
817	MYO10	ENST00000513610	p.R1643Q	c.4928	0.084611642	0	1
817	MYO10	ENST00000513610	p.L2000F	c.5998	0.084611642	3.563	1
818	CD1B	ENST00000368168	p.H56Y	c.166	0.036117808	0	1
818	CD1B	ENST00000368168	p.V191I	c.571	0.029732035	5.64	1
818	CD1B	ENST00000368168	p.H29Y	c.85	0.016064279	5.96	1
819	DPYSL2	ENST00000311151	p.D406N	c.1216	0.120002489	0	1
819	DPYSL2	ENST00000311151	p.Q449K	c.1345	0.017010016	6.021	1
819	DPYSL2	ENST00000311151	p.R467C	c.1399	0.106214088	3.257	1
820	VRK2	ENST00000340157	p.I214M	c.642	0.064301669	3.959	1
820	VRK2	ENST00000340157	p.K223N	c.669	0.003863168	8.016	1
820	VRK2	ENST00000340157	p.P257L	c.770	0.068164837	0	1

821 ME2	ENST00000321341	p.L288V	c.862	0.011686607	0	1
821 ME2	ENST00000321341	p.E329Q	c.985	0.011686607	6.419	1
822 STK16	ENST00000396738	p.R50Q	c.149	2.00242887	0	3
822 STK16	ENST00000396738	p.D166E	c.498	0.052688895	9.687	1
822 STK16	ENST00000396738	p.G27W	c.79	0.003647092	9.684	1
823 DDAH1	ENST00000284031	p.L114F	c.340	0.039609766	0	1
823 DDAH1	ENST00000284031	p.Q195H	c.585	0.039609766	4.658	1
824 RXRA	ENST00000481739	p.Y249F	c.746	0.143338328	2.913	1
824 RXRA	ENST00000481739	p.T278I	c.833	0.01253282	6.498	1
824 RXRA	ENST00000481739	p.R316L	c.947	0.145041906	0	1
824 RXRA	ENST00000481739	p.S317F	c.950	0.010307618	9.693	1
825 GBE1	ENST00000429644	p.P552S	c.1654	0.086509357	3.531	1
825 GBE1	ENST00000429644	p.A247V	c.740	0.086509357	0	1
826 TBX5	ENST00000405440	p.I54M	c.162	0.09422026	3.449	1
826 TBX5	ENST00000405440	p.V56A	c.167	0.031607332	5.11	1
826 TBX5	ENST00000405440	p.T92K	c.275	0.120524682	0	1
827 STAT1	ENST00000409465	p.E39V	c.116	0.020976612	0	1
827 STAT1	ENST00000409465	p.E6K	c.16	0.009426906	6.729	1
827 STAT1	ENST00000409465	p.I105T	c.314	0.011549706	6.436	1
828 CNTN1	ENST0000051295	p.K818N	c.2454	0.027212086	8.088	1
828 CNTN1	ENST0000051295	p.S826T	c.2476	0.388772762	9.46	1
828 CNTN1	ENST0000051295	p.R843P	c.2528	0.123894905	8.193	1
828 CNTN1	ENST0000051295	p.A847T	c.2539	0.271296471	4.811	1
828 CNTN1	ENST0000051295	p.Q876E	c.2626	0.560840708	2.468	1
828 CNTN1	ENST0000051295	p.E897Q	c.2689	1.224877827	0	1
828 CNTN1	ENST0000051295	p.E897D	c.2691	1.224877827	0	1
829 ALPP	ENST00000392027	p.R336C	c.1006	0.148136596	2.755	1
829 ALPP	ENST00000392027	p.M296R	c.887	0.148136596	0	1
830 IFNA13	ENST00000449498	p.R36W	c.106	0.045221467	7.01	1
830 IFNA13	ENST00000449498	p.E112K	c.334	1.007758535	0	2
831 RET	ENST00000355710	p.V706M	c.2116	0.02245219	0	1
831 RET	ENST00000355710	p.R959W	c.2875	0.02245219	5.477	1
832 PLG	ENST00000308192	p.S564L	c.1691	0.051376508	5.256	1
832 PLG	ENST00000308192	p.P589T	c.1765	0.080127409	0	1
832 PLG	ENST00000308192	p.P630H	c.1889	0.030143693	5.052	1
832 PLG	ENST00000308192	p.V681L	c.2041	0.049022318	5.392	1
833 MMP2	ENST00000570308	p.I409N	c.1226	0.071087037	7.575	1
833 MMP2	ENST00000570308	p.R424S	c.1270	0.512881167	0	1
833 MMP2	ENST00000570308	p.S579F	c.1736	0.342162756	1.853	1
833 MMP2	ENST00000570308	p.D580E	c.1740	0.202889019	2.743	1
833 MMP2	ENST00000570308	p.W581R	c.1741	0.18054934	3.618	1
834 PYGL	ENST00000216392	p.R491S	c.1471	0.008496003	0	1
834 PYGL	ENST00000216392	p.K681T	c.2042	0.008496003	6.879	1
835 KYNU	ENST00000264170	p.G73E	c.218	1.108217071	0	2
835 KYNU	ENST00000264170	p.K276T	c.827	0.216434141	3.208	1
836 PTPRM	ENST00000400060	p.E505D	c.1515	0.012413038	0	1
836 PTPRM	ENST00000400060	p.G543E	c.1628	0.012413038	6.332	1
837 SI	ENST00000264382	p.E643K	c.1927	0.029428065	6.687	1
837 SI	ENST00000264382	p.D751Y	c.2251	0.03184035	4.973	1

837 SI	ENST00000264382	p.A784T	c.2350	0.041545727	0	1
838 GABARAPL1	ENST00000543602	p.P42S	c.124	0.024860515	5.33	1
838 GABARAPL1	ENST00000543602	p.R67I	c.200	0.024860515	0	1
839 SMAD3	ENST00000327367	p.G379A	c.1136	0.023438109	5.415	1
839 SMAD3	ENST00000327367	p.A382V	c.1145	0.020193013	5.63	1
839 SMAD3	ENST00000327367	p.V331I	c.991	0.043631122	0	1
841 SERPINC1	ENST00000367698	p.W339R	c.1015	0.091087925	0	1
841 SERPINC1	ENST00000367698	p.R294C	c.880	0.009017855	6.793	1
841 SERPINC1	ENST00000367698	p.A296D	c.887	0.08207007	3.607	1
842 NID1	ENST00000264187	p.R1004G	c.3010	0.062456693	5.001	1
842 NID1	ENST00000264187	p.R1033C	c.3097	1.031228347	0	2
843 PLXNB2	ENST00000359337	p.N1483I	c.4448	0.099995016	3.322	1
843 PLXNB2	ENST00000359337	p.M1546T	c.4637	0.099995016	0	1
844 ITGA1	ENST00000282588	p.R304Q	c.911	0.339151082	1.56	1
844 ITGA1	ENST00000282588	p.E333K	c.997	0.339151082	0	1
845 FABP3	ENST00000373713	p.A4T	c.10	1.088572337	0	2
845 FABP3	ENST00000373713	p.R107L	c.320	0.177144675	3.497	1
846 GRM3	ENST00000361669	p.N467S	c.1400	0.175490942	2.879	1
846 GRM3	ENST00000361669	p.W297S	c.890	0.330536527	1.781	1
846 GRM3	ENST00000361669	p.G319N	c.955_956	0.426917682	0	1
847 GCK	ENST00000345378	p.R64H	c.191	0.346538029	2.934	1
847 GCK	ENST00000345378	p.T66I	c.197	0.116769709	3.942	1
847 GCK	ENST00000345378	p.P67S	c.199	0.191708187	3.775	1
847 GCK	ENST00000345378	p.E158K	c.472	0.046417816	8.744	1
847 GCK	ENST00000345378	p.D161N	c.481	0.108624616	6.448	1
847 GCK	ENST00000345378	p.A209V	c.626	0.088006224	6.772	1
847 GCK	ENST00000345378	p.Y216F	c.647	0.265900781	7.892	1
847 GCK	ENST00000345378	p.E217K	c.649	0.068506194	9.144	1
847 GCK	ENST00000345378	p.E222K	c.664	0.220047618	2.551	1
847 GCK	ENST00000345378	p.R251S	c.751	0.46851438	0	1
848 BIN1	ENST00000316724	p.M522I	c.1566	0.128069603	2.965	1
848 BIN1	ENST00000316724	p.P551L	c.1652	0.128069603	0	1
849 C6	ENST00000263413	p.R356Q	c.1067	2.014144852	0	3
849 C6	ENST00000263413	p.P95T	c.283	0.027776794	7.261	1
849 C6	ENST00000263413	p.R104I	c.311	0.022875744	7.035	1
850 C3	ENST00000245907	p.R505C	c.1513	0.032504981	5.494	1
850 C3	ENST00000245907	p.Y534C	c.1601	0.133294513	0	1
850 C3	ENST00000245907	p.S27F	c.80	0.121421139	3.17	1
852 PAH	ENST00000553106	p.G289R	c.865	0.023232883	9.875	1
852 PAH	ENST00000553106	p.H290Y	c.868	0.096727009	7.735	1
852 PAH	ENST00000553106	p.S303F	c.908	1.060546697	0	2
852 PAH	ENST00000553106	p.V329L	c.985	0.214687323	4.19	1
853 LEPR	ENST00000349533	p.V543A	c.1628	0.004896613	0	1
853 LEPR	ENST00000349533	p.R573C	c.1717	0.004896613	7.674	1
854 ACACB	ENST00000338432	p.R615W	c.1843	0.011581774	6.432	1
854 ACACB	ENST00000338432	p.G256R	c.766	0.011581774	0	1
855 MYH7	ENST00000355349	p.R453C	c.1357	1.178235863	6.137	1
855 MYH7	ENST00000355349	p.R453H	c.1358	1.178235863	6.137	1
855 MYH7	ENST00000355349	p.G458R	c.1372	0.677145597	2.245	1

855 MYH7	ENST00000355349	p.V670I	c.2008	0.325019834	9.145	1
855 MYH7	ENST00000355349	p.S173F	c.518	0.322045955	4.561	1
855 MYH7	ENST00000355349	p.L175R	c.524	0.298690381	6.964	1
855 MYH7	ENST00000355349	p.R249Q	c.746	1.293581086	0	2
855 MYH7	ENST00000355349	p.S260Y	c.779	0.304247411	8.918	1
856 SEC24A	ENST00000398844	p.L678F	c.2034	0.070127052	4.367	1
856 SEC24A	ENST00000398844	p.S681C	c.2042	0.113687134	3.41	1
856 SEC24A	ENST00000398844	p.G682V	c.2045	0.16935883	2.771	1
856 SEC24A	ENST00000398844	p.R864L	c.2591_2592	0.016711854	6.214	1
856 SEC24A	ENST00000398844	p.L906V	c.2716	0.302513775	0	1
857 FSHR	ENST00000406846	p.P355L	c.1064	1.005835209	0	1
857 FSHR	ENST00000406846	p.P355Q	c.1064	1.005835209	0	1
857 FSHR	ENST00000406846	p.Y271H	c.811	0.02657605	7.421	1
858 DLD	ENST00000205402	p.G154E	c.461	0.138792354	0	1
858 DLD	ENST00000205402	p.K320M	c.959	0.138792354	2.849	1
859 HSPA6	ENST00000309758	p.V337I	c.1009	0.075239296	6.831	1
859 HSPA6	ENST00000309758	p.E360K	c.1078	1.008783429	0	1
859 HSPA6	ENST00000309758	p.E360V	c.1079	1.008783429	0	1
860 SMYD3	ENST00000541742	p.D215N	c.643	0.028164077	0	1
860 SMYD3	ENST00000541742	p.I266M	c.798	0.028164077	5.15	1
861 OGT	ENST00000373719	p.P713S	c.2137	0.007726335	7.016	1
861 OGT	ENST00000373719	p.DSL746in_frame_del	c.2232_2240	0.101390894	3.302	1
861 OGT	ENST00000373719	p.N773I	c.2318	0.10911723	0	1
862 KITLG	ENST00000228280	p.D39N	c.115	0.019955406	6.339	1
862 KITLG	ENST00000228280	p.V40F	c.118	0.013842199	7.257	1
862 KITLG	ENST00000228280	p.P59S	c.175	0.053988958	8.42	1
862 KITLG	ENST00000228280	p.M61I	c.183	0.154351083	2.76	1
862 KITLG	ENST00000228280	p.H67Y	c.199	0.120714491	8.291	1
862 KITLG	ENST00000228280	p.V74I	c.220	0.128166482	7.989	1
862 KITLG	ENST00000228280	p.R146I	c.437	0.176563234	0	1
863 AADAT	ENST00000353187	p.H95Y	c.283	0.122342706	0	1
863 AADAT	ENST00000353187	p.S248F	c.743	0.122342706	3.031	1
864 RAB9B	ENST00000243298	p.I60V	c.178	0.061213769	0	1
864 RAB9B	ENST00000243298	p.V28I	c.82	0.061213769	4.03	1
865 SERPINC1	ENST00000367698	p.K43N	c.129	0.146054914	3.135	1
865 SERPINC1	ENST00000367698	p.P48S	c.142	0.103143486	4.317	1
865 SERPINC1	ENST00000367698	p.M49I	c.147	0.23041645	3.284	1
865 SERPINC1	ENST00000367698	p.R79H	c.236	0.211016204	3.047	1
865 SERPINC1	ENST00000367698	p.L124Q	c.371	0.240940002	6.76	1
865 SERPINC1	ENST00000367698	p.E145K	c.433	0.217709264	7.407	1
865 SERPINC1	ENST00000367698	p.F153L	c.459	0.402780647	0	1
866 FLNA	ENST00000438732	p.S196C	c.587	0.045579547	4.736	1
867 ARHGAP20	ENST00000260283	p.F398S	c.1193	0.035756551	6.925	1
867 ARHGAP20	ENST00000260283	p.L438R	c.1313	0.167980802	0	1
867 ARHGAP20	ENST00000260283	p.L488R	c.1463	0.102615892	4.017	1
867 ARHGAP20	ENST00000260283	p.P515A	c.1543	0.008980429	6.799	1
867 ARHGAP20	ENST00000260283	p.S516R	c.1546	0.09450067	3.49	1
868 HDAC4	ENST00000345617	p.A774V	c.2321	0.073607674	3.764	1
868 HDAC4	ENST00000345617	p.S817Y	c.2450	0.081656533	0	1

868 HDAC4	ENST00000345617	p.S930T	c.2788	0.008048859	6.957	1
869 GLUL	ENST00000311223	p.V101D	c.302	0.028340323	0	1
869 GLUL	ENST00000311223	p.P326R	c.977	0.028340323	5.141	1
870 ADPRHL2	ENST00000373178	p.S185F	c.554	0.101110169	0	1
870 ADPRHL2	ENST00000373178	p.S228F	c.683_684	0.101110169	3.306	1
871 ACE2	ENST00000427411	p.L450P	c.1349	0.040455802	0	1
871 ACE2	ENST00000427411	p.V581I	c.1741	0.016458766	5.925	1
871 ACE2	ENST00000427411	p.R273K	c.818	0.023997035	5.381	1
872 YWHAG	ENST00000307630	p.D203N	c.607	0.009459633	6.724	1
872 YWHAG	ENST00000307630	p.D241N	c.721	0.009459633	0	1
873 AHCY	ENST00000217426	p.R196L	c.587	0.012949139	6.271	1
873 AHCY	ENST00000217426	p.R233Q	c.698	0.012949139	0	1
874 TF	ENST00000402696	p.T440I	c.1319	0.02875351	0	1
874 TF	ENST00000402696	p.C656Y	c.1967	0.015495574	6.012	1
874 TF	ENST00000402696	p.R663K	c.1988	0.013257936	6.237	1
875 GSTM3	ENST00000256594	p.C91F	c.272	0.086665385	0	1
875 GSTM3	ENST00000256594	p.A153V	c.458	0.014715479	6.231	1
875 GSTM3	ENST00000256594	p.K156R	c.467	0.047424542	4.498	1
875 GSTM3	ENST00000256594	p.L157V	c.469	0.039375901	5.103	1
876 NRP1	ENST00000374867	p.E460Q	c.1378	1.01748183	0	2
876 NRP1	ENST00000374867	p.R577G	c.1729	0.070990753	5.838	1
877 MYO1C	ENST00000359786	p.S196C	c.586	0.007183985	7.121	1
877 MYO1C	ENST00000359786	p.H238Y	c.712	0.010663254	0	1
877 MYO1C	ENST00000359786	p.N279S	c.836	0.003479269	8.167	1
878 PARP1	ENST00000366794	p.R735C	c.2203	0.098270405	6.28	1
878 PARP1	ENST00000366794	p.N1008Y	c.3022	1.01286861	0	1
878 PARP1	ENST00000366794	p.N1008S	c.3023	1.01286861	0	1
879 PDILT	ENST00000302451	p.V336F	c.1006	1.102948877	0	1
879 PDILT	ENST00000302451	p.V336I	c.1006	1.102948877	0	1
879 PDILT	ENST00000302451	p.L279P	c.836	0.21478222	3.28	1
880 CECR1	ENST00000262607	p.D441N	c.1321	0.011202775	6.48	1
880 CECR1	ENST00000262607	p.A109V	c.326	0.026473934	6.627	1
880 CECR1	ENST00000262607	p.F235L	c.703	0.031012231	0	1
880 CECR1	ENST00000262607	p.F276V	c.826	0.024868612	6.689	1
881 THBS2	ENST00000366787	p.W700R	c.2098	0.165418556	8.798	1
881 THBS2	ENST00000366787	p.L723V	c.2167	0.068816999	5.073	1
881 THBS2	ENST00000366787	p.S726Y	c.2177	0.187563254	6.006	1
881 THBS2	ENST00000366787	p.D738N	c.2212	0.03569832	5.808	1
881 THBS2	ENST00000366787	p.R982C	c.2944	1.065364073	0	2
882 CBX1	ENST00000393408	p.N50S	c.149	0.102450576	3.287	1
882 CBX1	ENST00000393408	p.L27I	c.79	0.102450576	0	1
883 PRKAA2	ENST00000371244	p.E168K	c.502	1.009545259	0	2
883 PRKAA2	ENST00000371244	p.G192C	c.574	0.019090517	6.711	1
884 MMP2	ENST00000570308	p.P41S	c.121	1.151287901	0	1
884 MMP2	ENST00000570308	p.P41L	c.122	1.151287901	0	1
884 MMP2	ENST00000570308	p.P121T	c.361	0.350603322	2.816	1
884 MMP2	ENST00000570308	p.C157F	c.470	0.10254304	6.751	1
885 RAE1	ENST00000527947	p.A232V	c.695	0.017595262	7.152	1
885 RAE1	ENST00000527947	p.A280T	c.838	1.057903445	0	2

885 RAE1	ENST00000527947	p.C321S	c.961	0.100379629	4.393	1
885 RAE1	ENST00000527947	p.N324S	c.971	0.013660992	8.254	1
886 TMPRSS11E	ENST00000305363	p.M256I	c.768	0.048712298	4.46	1
886 TMPRSS11E	ENST00000305363	p.R258L	c.773_774	0.075368507	3.794	1
886 TMPRSS11E	ENST00000305363	p.P288L	c.863	0.117529491	0	1
887 ETF1	ENST00000360541	p.K108R	c.323	0.017361074	0	1
887 ETF1	ENST00000360541	p.F131V	c.391	0.017361074	5.848	1
888 CFH	ENST00000367429	p.D772N	c.2314	0.050205875	5.316	1
888 CFH	ENST00000367429	p.G795R	c.2383	1.025102937	0	1
888 CFH	ENST00000367429	p.G795A	c.2384	1.025102937	0	1
889 PAPOLG	ENST00000238714	p.N238S	c.713	0.032734805	5.034	1
889 PAPOLG	ENST00000238714	p.L243F	c.727	0.083360165	3.786	1
889 PAPOLG	ENST00000238714	p.V284M	c.850	0.005850087	8.318	1
889 PAPOLG	ENST00000238714	p.T325M	c.974	0.10614939	0	1
890 MR1	ENST00000367580	p.L220F	c.658	0.009355302	0	1
890 MR1	ENST00000367580	p.P292L	c.875	0.009355302	6.74	1
891 CD1D	ENST00000368171	p.R219H	c.656	0.173005187	7.281	1
891 CD1D	ENST00000368171	p.R240W	c.718	1.140477083	0	1
891 CD1D	ENST00000368171	p.R240Q	c.719	1.140477083	0	1
891 CD1D	ENST00000368171	p.V269M	c.805	0.252694387	4.517	1
891 CD1D	ENST00000368171	p.G272V	c.815	0.19648918	3.468	1
892 HAO1	ENST00000378789	p.M105I	c.315	1.008930768	0	2
892 HAO1	ENST00000378789	p.I317M	c.951	0.024922105	6.807	1
893 BPIFA1	ENST00000375413	p.H182R	c.545	0.099255466	3.35	1
893 BPIFA1	ENST00000375413	p.S183F	c.548	0.016572245	6.374	1
893 BPIFA1	ENST00000375413	p.P216S	c.646	0.110129889	0	1
894 AOC1	ENST00000416793	p.D661N	c.1981	0.023672477	6.16	1
894 AOC1	ENST00000416793	p.R141G	c.421	0.150392751	0	1
894 AOC1	ENST00000416793	p.R197C	c.589	0.138315618	2.874	1
895 PTPRD	ENST00000356435	p.P526L	c.1577	0.341007632	0	1
895 PTPRD	ENST00000356435	p.A602V	c.1805	0.179297786	2.731	1
895 PTPRD	ENST00000356435	p.R603S	c.1809	0.219062339	2.393	1
896 ECHS1	ENST00000368547	p.A84V	c.251	0.041035035	4.607	1
896 ECHS1	ENST00000368547	p.A230V	c.689	0.041035035	0	1
897 PLXNB1	ENST00000296440	p.R1801C	c.5401	0.016119407	0	1
897 PLXNB1	ENST00000296440	p.R1832H	c.5495	0.006905684	7.178	1
897 PLXNB1	ENST00000296440	p.P1851S	c.5551	0.009213723	6.762	1
898 PDK4	ENST00000005178	p.F344L	c.1030	0.064586841	4.115	1
898 PDK4	ENST00000005178	p.Q345L	c.1034	0.100200517	3.436	1
898 PDK4	ENST00000005178	p.E370K	c.1108	0.176846391	0	1
898 PDK4	ENST00000005178	p.R301I	c.902	0.030750862	5.225	1
899 PROZ	ENST00000342783	p.T338M	c.1013	0.106433874	0	1
899 PROZ	ENST00000342783	p.Q213H	c.639	0.018119953	6.405	1
899 PROZ	ENST00000342783	p.D278N	c.832	0.030219087	5.141	1
899 PROZ	ENST00000342783	p.A298V	c.893	0.074491134	3.915	1
900 SERPINB3	ENST00000283752	p.S143T	c.428	0.018278903	9.337	1
900 SERPINB3	ENST00000283752	p.P164S	c.490	2.001546261	0	3
901 GBA	ENST00000327247	p.M374T	c.1121	0.224612989	0	1
901 GBA	ENST00000327247	p.R434C	c.1300	0.088480421	3.697	1

901	GBA	ENST00000327247	p.W267C	c.801	0.10494749	3.431	1
901	GBA	ENST00000327247	p.L30I	c.88	0.064092213	4.19	1
902	CENPE	ENST00000265148	p.L126I	c.376	0.004307301	0	1
902	CENPE	ENST00000265148	p.E170K	c.508	0.004307301	7.859	1
903	HMGCR	ENST00000287936	p.R495H	c.1484	0.007899626	0	1
903	HMGCR	ENST00000287936	p.C527Y	c.1580	0.007899626	6.984	1
904	XDH	ENST00000379416	p.P577L	c.1730	0.101915767	4.354	1
904	XDH	ENST00000379416	p.P1058S	c.3172	0.042952269	8.964	1
904	XDH	ENST00000379416	p.S108N	c.323	0.185619855	0	1
904	XDH	ENST00000379416	p.S194F	c.581	0.14678188	2.892	1
905	ACADM	ENST00000370834	p.P92T	c.274	0.036931611	4.759	1
905	ACADM	ENST00000370834	p.K175N	c.525	0.036931611	0	1
906	PDE10A	ENST00000539869	p.P354A	c.1060	0.183469387	0	1
906	PDE10A	ENST00000539869	p.R375L	c.1124	0.136127921	3.405	1
906	PDE10A	ENST00000539869	p.S401T	c.1202	0.130788235	3.489	1
907	UBE3A	ENST00000397954	p.F767L	c.2301	0.007635826	0	1
907	UBE3A	ENST00000397954	p.R836K	c.2507	0.007635826	7.033	1
908	G6PD	ENST00000369620	p.E414K	c.1240	1.036524289	7.014	2
908	G6PD	ENST00000369620	p.R439L	c.1316	0.083817368	4.775	1
909	CSF2RA	ENST00000417535	p.H15P	c.44	0.008172539	6.935	1
909	CSF2RA	ENST00000417535	p.P220S	c.658	0.009566107	0	1
909	CSF2RA	ENST00000417535	p.D250Y	c.748	0.001393569	9.487	1
910	PPP2R5C	ENST00000422945	p.S367F	c.1100	0.078617811	3.669	1
910	PPP2R5C	ENST00000422945	p.P403S	c.1207	0.078617811	0	1
911	CUL1	ENST00000602748	p.Y466S	c.1397	0.238099601	3.955	1
911	CUL1	ENST00000602748	p.E499D	c.1497	0.164281548	7.698	1
911	CUL1	ENST00000602748	p.R506S	c.1516	1.243237414	0	1
911	CUL1	ENST00000602748	p.R506H	c.1517	1.243237414	0	1
911	CUL1	ENST00000602748	p.G543W	c.1626_1627	1.173844947	3.683	1
911	CUL1	ENST00000602748	p.G543R	c.1627	1.173844947	3.683	1
911	CUL1	ENST00000602748	p.R577Q	c.1730	0.049726298	5.778	1
912	GRIA2	ENST00000296526	p.Y192H	c.574	0.090938795	8.129	1
912	GRIA2	ENST00000296526	p.R193Q	c.578	1.046201749	0	2
912	GRIA2	ENST00000296526	p.Q222H	c.666	0.178592421	4.552	1
913	MYL6B	ENST00000550443	p.F69I	c.205	0.008303054	0	1
913	MYL6B	ENST00000550443	p.G97D	c.290	0.007319699	7.094	1
913	MYL6B	ENST00000550443	p.A133T	c.397	0.00337298	9.99	1
914	KDM8	ENST00000441782	p.M371T	c.1112	0.092804721	0	1
914	KDM8	ENST00000441782	p.L261V	c.781	0.076628253	3.731	1
914	KDM8	ENST00000441782	p.A268T	c.802	0.018811434	5.837	1
915	TRIM45	ENST00000256649	p.V443I	c.1327	0.181369026	2.463	1
915	TRIM45	ENST00000256649	p.T478A	c.1432	0.181369026	0	1
916	NEO1	ENST00000339362	p.Q662H	c.1986	0.092847058	3.429	1
916	NEO1	ENST00000339362	p.E684D	c.2052	0.092847058	0	1
917	PRKCA	ENST00000413366	p.I106F	c.316	0.004074955	0	1
917	PRKCA	ENST00000413366	p.D133N	c.397	0.004074955	7.939	1
918	HK1	ENST00000448642	p.T492M	c.1475	0.01996256	9.484	1
918	HK1	ENST00000448642	p.L118V	c.352	0.186233184	2.503	1
918	HK1	ENST00000448642	p.G122E	c.365	0.012721304	6.531	1

918	HK1	ENST00000448642	p.T188M	c.563	0.18861962	0	1
919	HSPA9	ENST00000297185	p.I286T	c.857	0.022483337	5.475	1
919	HSPA9	ENST00000297185	p.A311G	c.932	0.022483337	0	1
920	POLI	ENST00000579534	p.V58E	c.173	0.049625831	0	1
920	POLI	ENST00000579534	p.R209W	c.625	0.028281452	5.144	1
920	POLI	ENST00000579534	p.S235C	c.704	0.021344379	5.55	1
921	PKLR	ENST00000342741	p.E375K	c.1123	0.02002764	8.604	1
921	PKLR	ENST00000342741	p.C467W	c.1401	0.024537571	5.547	1
921	PKLR	ENST00000342741	p.L61M	c.181	0.171174187	0	1
921	PKLR	ENST00000342741	p.A85V	c.254	0.167821721	2.764	1
922	SCN2A	ENST00000283256	p.D1850N	c.5548	0.039957566	7.855	1
922	SCN2A	ENST00000283256	p.R1902C	c.5704	1.00431926	0	1
922	SCN2A	ENST00000283256	p.R1902H	c.5705	1.00431926	0	1
923	HBA2	ENST00000251595	p.L35M	c.103	0.025121071	7.781	1
923	HBA1	ENST00000320868	p.T9N	c.26	0.253362624	0	1
923	HBA2	ENST00000251595	p.A121V	c.362	0.247707209	2.178	1
923	HBA2	ENST00000251595	p.H123Y	c.367	0.033984997	5.167	1
924	ALOX15	ENST00000545513	p.I435M	c.1305	0.044071145	4.705	1
924	ALOX15	ENST00000545513	p.F436S	c.1307	0.157771377	2.742	1
924	ALOX15	ENST00000545513	p.G444V	c.1331	0.019708724	5.866	1
924	ALOX15	ENST00000545513	p.A308T	c.922	0.204963442	0	1
925	CR1	ENST00000367052	p.G1622E	c.4865	0.017835988	9.385	1
925	CR1	ENST00000367052	p.R1648W	c.4942	0.249472786	0	1
925	CR1	ENST00000367052	p.F1669S	c.5006	0.054024364	4.879	1
925	CR1	ENST00000367052	p.S1670L	c.5009	0.179391042	2.705	1
925	CR1	ENST00000367052	p.C1693S	c.5077	0.059209608	4.551	1
925	CR1	ENST00000367052	p.T1694M	c.5081	0.020729709	5.798	1
926	CDH1	ENST00000261769	p.ENEKGP165in_frame_del	c.488_505	0.324553195	3.01	1
926	CDH1	ENST00000261769	p.R222G	c.664	0.518085003	2.485	1
926	CDH1	ENST00000261769	p.D254Y	c.760	0.519039217	0	1
926	CDH1	ENST00000261769	p.D290G	c.869	0.237021993	3.44	1
926	CDH1	ENST00000261769	p.D291N	c.871	0.244089459	3.01	1
927	SERPINA1	ENST00000448921	p.G344R	c.1030	0.300409012	2.735	1
927	SERPINA1	ENST00000448921	p.G91R	c.271	1.150204506	0	1
927	SERPINA1	ENST00000448921	p.G91V	c.272	1.150204506	0	1
928	MGAM	ENST00000475668	p.D1337N	c.4009	0.026110568	5.989	1
928	MGAM	ENST00000475668	p.R1387C	c.4159	0.050159533	0	1
928	MGAM	ENST00000475668	p.P1471S	c.4411	0.047444552	5.317	1
928	MGAM	ENST00000475668	p.P1492T	c.4474	0.0093294	6.744	1
929	ACADSB	ENST00000358776	p.T350A	c.1048	0.011150425	6.632	1
929	ACADSB	ENST00000358776	p.F363L	c.1087	0.005908469	7.403	1
929	ACADSB	ENST00000358776	p.Q420E	c.1258	0.10698446	3.239	1
929	ACADSB	ENST00000358776	p.R294T	c.881	0.121907543	0	1
930	PTPRF	ENST00000359947	p.S344L	c.1031	0.070316155	0	1
930	PTPRF	ENST00000359947	p.G378S	c.1132	0.070316155	3.83	1
931	ITK	ENST00000422843	p.E172D	c.516	0.173155309	0	1
931	ITK	ENST00000422843	p.D202A	c.605	0.105569465	3.348	1
931	ITK	ENST00000422843	p.S203N	c.608	0.082306645	3.738	1
932	CTLA4	ENST00000302823	p.A66D	c.197	0.261540607	3.494	1

932	CTLA4	ENST00000302823	p.A87T	c.259	0.09894314	7.067	1
932	CTLA4	ENST00000302823	p.M91T	c.272	1.096214687	0	1
932	CTLA4	ENST00000302823	p.M91I	c.273	1.096214687	0	1
933	F2	ENST00000311907	p.R217Q	c.650	0.284070257	0	1
933	F2	ENST00000311907	p.D268N	c.802	0.083744514	3.859	1
933	F2	ENST00000311907	p.E270K	c.808	0.141688769	3.036	1
933	F2	ENST00000311907	p.Y290C	c.869	0.111026429	3.423	1
934	P2RY4	ENST00000374519	p.R63H	c.188	0.087595466	3.513	1
934	P2RY4	ENST00000374519	p.Q316E	c.946	0.087595466	0	1
935	MTPN	ENST00000393085	p.F6L	c.18	0.030500993	5.035	1
935	MTPN	ENST00000393085	p.A63D	c.188	0.00341003	8.196	1
935	MTPN	ENST00000393085	p.R30Q	c.89	0.033911022	0	1
936	STARD13	ENST00000336934	p.S42R	c.124	1.00411184	0	1
936	STARD13	ENST00000336934	p.S42T	c.125	1.00411184	0	1
936	STARD13	ENST00000336934	p.R68H	c.203	0.016250255	7.926	1
937	MPO	ENST00000340482	p.S372T	c.1115	0.011414409	6.453	1
937	MPO	ENST00000340482	p.R479W	c.1435	0.011414409	0	1
938	TLR10	ENST00000508334	p.R630I	c.1889	0.076309157	0	1
938	TLR10	ENST00000508334	p.E687K	c.2059	0.076309157	3.712	1
939	HUS1	ENST00000436444	p.F64L	c.192	0.025880333	5.272	1
939	HUS1	ENST00000436444	p.T114S	c.340	0.007380836	7.082	1
939	HUS1	ENST00000436444	p.F3C	c.8	0.033261169	0	1
940	DCC	ENST00000442544	p.R443Q	c.1328	1.238149805	7.519	2
940	DCC	ENST00000442544	p.R446H	c.1337	2.122627136	0	3
940	DCC	ENST00000442544	p.V489L	c.1465	0.441049559	3.162	1
941	C8B	ENST00000371237	p.Y344C	c.1031	0.215023927	0	1
941	C8B	ENST00000371237	p.T346K	c.1037	0.098835806	6.709	1
941	C8B	ENST00000371237	p.E468D	c.1404	0.211539777	2.983	1
941	C8B	ENST00000371237	p.E472K	c.1414	0.090579777	3.737	1
941	C8B	ENST00000371237	p.P189L	c.566	0.014934998	7.971	1
942	ZMPSTE24	ENST00000372759	p.F445I	c.1333	0.025312197	0	1
942	ZMPSTE24	ENST00000372759	p.H50Y	c.148	0.014845934	6.515	1
942	ZMPSTE24	ENST00000372759	p.L69F	c.205	0.014377932	6.12	1
943	PGC	ENST00000373025	p.E64K	c.190	0.136310601	2.955	1
943	PGC	ENST00000373025	p.A108T	c.322	0.142474921	4.133	1
943	PGC	ENST00000373025	p.T169A	c.505	0.190409241	0	1
943	PGC	ENST00000373025	p.V172I	c.514	0.082581915	7.811	1
944	DAO	ENST00000228476	p.A36T	c.106	0.01147788	6.445	1
944	DAO	ENST00000228476	p.F159L	c.477	0.01147788	0	1
945	GOT1	ENST00000370508	p.S85A	c.253	0.021573669	6.066	1
945	GOT1	ENST00000370508	p.R86H	c.257	0.01505347	7.905	1
945	GOT1	ENST00000370508	p.Q227E	c.679	0.033349881	5.982	1
945	GOT1	ENST00000370508	p.F257L	c.771	0.034919595	0	1
946	ROCK2	ENST00000315872	p.R336K	c.1007	0.011816937	6.403	1
946	ROCK2	ENST00000315872	p.P259H	c.776	0.011816937	0	1
947	ATG5	ENST00000343245	p.S66N	c.197	0.17339864	0	1
947	ATG5	ENST00000343245	p.K105N	c.315	0.142392954	2.863	1
947	ATG5	ENST00000343245	p.S106I	c.317	0.040887557	4.798	1
948	PTCRA	ENST00000304672	p.C47F	c.140	0.09501806	3.417	1

948	PTCRA	ENST00000304672	p.L50F	c.148	0.039785447	7.733	1
948	PTCRA	ENST00000304672	p.V52D	c.155	0.010758052	7.271	1
948	PTCRA	ENST00000304672	p.L89V	c.265	0.106000654	0	1
948	PTCRA	ENST00000304672	p.P27S	c.79	0.04057165	9.699	1
949	ACE	ENST00000290866	p.R918K	c.2753	0.049248584	4.482	1
949	ACE	ENST00000290866	p.S944L	c.2831	0.14530007	0	1
949	ACE	ENST00000290866	p.R971W	c.2911	0.105050607	3.314	1
950	MPO	ENST00000340482	p.A617D	c.1850	0.036588312	6.974	1
950	MPO	ENST00000340482	p.G630E	c.1889	0.195467411	3.355	1
950	MPO	ENST00000340482	p.D673N	c.2017	1.105688277	0	2
951	FLT3LG	ENST00000600429	p.S151F	c.452_453	0.003723822	0	1
951	FLT3LG	ENST00000600429	p.F32L	c.96	0.003723822	8.069	1
952	NT5C3A	ENST00000396152	p.L153H	c.458	0.035255692	0	1
952	NT5C3A	ENST00000396152	p.L297I	c.889	0.035255692	4.826	1
953	MTR	ENST00000366577	p.R1027Q	c.3080	0.157235621	2.669	1
953	MTR	ENST00000366577	p.F1105L	c.3313	0.157235621	0	1
954	PPP5C	ENST0000012443	p.R400Q	c.1199	0.109120949	0	1
954	PPP5C	ENST0000012443	p.E428K	c.1282	0.109120949	3.196	1
955	ITGAL	ENST00000356798	p.R281C	c.841	0.074212422	5.941	1
955	ITGAL	ENST00000356798	p.A307T	c.919	1.016277241	0	2
956	PTPRG	ENST00000474889	p.R94C	c.280	2.126555129	0	2
956	PTPRG	ENST00000474889	p.R94G	c.280	2.126555129	0	1
956	PTPRG	ENST00000474889	p.E97K	c.289	0.027850821	8.913	1
956	PTPRG	ENST00000474889	p.R251W	c.751	0.187444798	6.039	1
956	PTPRG	ENST00000474889	p.S318F	c.953	0.485979635	3.194	1
957	MTMR2	ENST00000352297	p.R292L	c.875	0.013221228	0	1
957	MTMR2	ENST00000352297	p.T314A	c.940	0.013221228	6.241	1
958	AGXT	ENST00000307503	p.P34F	c.100_101	0.027719521	5.819	1
958	AGXT	ENST00000307503	p.Q208H	c.624	0.100538247	8.41	1
958	AGXT	ENST00000307503	p.A213V	c.638	0.17624443	0	1
958	AGXT	ENST00000307503	p.S271N	c.812	0.053547176	4.37	1
958	AGXT	ENST00000307503	p.S275R	c.825	0.093164293	3.697	1
958	AGXT	ENST00000307503	p.P30L	c.89	0.131500569	5.053	1
959	PRPSAP1	ENST00000446526	p.Y197H	c.589	0.006176477	7.339	1
959	PRPSAP1	ENST00000446526	p.I202T	c.605	0.011011249	7.644	1
959	PRPSAP1	ENST00000446526	p.R279H	c.836	0.011175979	0	1
960	ICAM2	ENST00000579687	p.A37V	c.110	0.111262099	0	1
960	ICAM2	ENST00000579687	p.P40L	c.119	0.081924873	8.822	1
960	ICAM2	ENST00000579687	p.V108M	c.322	0.109688373	5.173	1
960	ICAM2	ENST00000579687	p.G200D	c.599	0.08358833	3.62	1
961	PDK3	ENST00000441463	p.V193M	c.577	0.11335436	0	1
961	PDK3	ENST00000441463	p.E222D	c.666	0.035565314	4.925	1
961	PDK3	ENST00000441463	p.V234L	c.700	0.08308461	3.636	1
962	C6	ENST00000263413	p.T674N	c.2021	0.021814091	5.722	1
962	C6	ENST00000263413	p.T702M	c.2105	0.17035753	0	1
962	C6	ENST00000263413	p.R723K	c.2168	0.091866743	3.563	1
962	C6	ENST00000263413	p.G748R	c.2242	0.073718031	3.904	1
963	MAT1A	ENST00000372213	p.L364V	c.1090	0.069204037	3.853	1
963	MAT1A	ENST00000372213	p.W387S	c.1160	0.069204037	0	1

964 RECQL	ENST00000421138	p.G403E	c.1208	0.056430563	7.242	1
964 RECQL	ENST00000421138	p.R455L	c.1364	0.217864325	0	1
964 RECQL	ENST00000421138	p.P284S	c.850	0.098978194	3.668	1
964 RECQL	ENST00000421138	p.L286Q	c.857	0.192841344	2.915	1
965 DIRAS1	ENST00000323469	p.P69L	c.206	0.084139332	4.025	1
965 DIRAS1	ENST00000323469	p.V119M	c.355	0.008525499	6.874	1
965 DIRAS1	ENST00000323469	p.E125K	c.373	0.034655142	6.254	1
965 DIRAS1	ENST00000323469	p.S150L	c.449	0.101947472	0	1
965 DIRAS1	ENST00000323469	p.R26H	c.77	0.029015361	5.726	1
966 LYZ	ENST00000261267	p.E53K	c.157	0.041839159	0	1
966 LYZ	ENST00000261267	p.R119C	c.355	0.035504414	5.482	1
966 LYZ	ENST00000261267	p.R133H	c.398	0.019464647	5.683	1
967 AIFM1	ENST00000287295	p.I137M	c.411	0.144485838	0	1
967 AIFM1	ENST00000287295	p.A259E	c.776	0.144485838	2.791	1
968 PIK3CA	ENST00000263967	p.Q958R	c.2873	9.01433212	4.324	1
968 PIK3CA	ENST00000263967	p.H1047Y	c.3139	168.0786511	0	1
968 PIK3CA	ENST00000263967	p.H1047L	c.3140	168.0786511	0	21
968 PIK3CA	ENST00000263967	p.H1047R	c.3140	168.0786511	0	146
968 PIK3CA	ENST00000263967	p.H1047Q	c.3141	168.0786511	0	1
968 PIK3CA	ENST00000263967	p.H1048R	c.3143	1.094458955	7.516	1
968 PIK3CA	ENST00000263967	p.G1049R	c.3145	3.482561942	7.011	3
969 PROC	ENST00000453608	p.V414I	c.1240	0.192242604	0	1
969 PROC	ENST00000453608	p.R327C	c.979	0.192242604	2.379	1
970 TGFBR1	ENST00000552516	p.A206V	c.617	0.157126672	2.67	1
970 TGFBR1	ENST00000552516	p.E232V	c.695	0.157126672	0	1
971 PVRL1	ENST00000264025	p.S174L	c.521	0.114387396	3.128	1
971 PVRL1	ENST00000264025	p.T206M	c.617	0.114387396	0	1
972 OTUD3	ENST00000375120	p.D109Y	c.325	0.071843428	0	1
972 OTUD3	ENST00000375120	p.R144I	c.431	0.071843428	3.799	1
973 ERP27	ENST00000266397	p.L164I	c.490	0.007006939	7.157	1
973 ERP27	ENST00000266397	p.Q246R	c.737	0.007006939	0	1
974 SKIL	ENST00000458537	p.E162D	c.486	0.001440714	9.439	1
974 SKIL	ENST00000458537	p.R237Q	c.710	0.001440714	0	1
975 CBLC	ENST00000270279	p.R119Q	c.356	0.114704985	3.124	1
975 CBLC	ENST00000270279	p.E186K	c.556	0.114704985	0	1
976 LDHA	ENST00000540430	p.G216W	c.646	0.017027377	0	1
976 LDHA	ENST00000540430	p.P321S	c.961	0.017027377	5.876	1
977 ZMPSTE24	ENST00000372759	p.S352G	c.1054	0.009213723	0	1
977 ZMPSTE24	ENST00000372759	p.L403I	c.1207	0.009213723	6.762	1
978 PNLIPRP1	ENST00000358834	p.F96I	c.286	0.096521892	0	1
978 PNLIPRP1	ENST00000358834	p.W270L	c.809	0.096521892	3.373	1
979 CHEK2	ENST00000382580	p.E351Q	c.1051	0.19638422	0	1
979 CHEK2	ENST00000382580	p.E394D	c.1182	0.127024947	3.086	1
979 CHEK2	ENST00000382580	p.L397V	c.1189	0.096838122	3.669	1
983 MMP14	ENST00000311852	p.W421R	c.1261	0.03526366	4.94	1
983 MMP14	ENST00000311852	p.E457K	c.1369	0.08515585	3.6	1
983 MMP14	ENST00000311852	p.F486S	c.1457	0.115046299	0	1
984 CTSG	ENST00000216336	p.Y37H	c.109	0.093752437	0	1
984 CTSG	ENST00000216336	p.I70M	c.210	0.093752437	3.415	1

985 ANGPT1	ENST00000517746	p.G453S	c.1357	0.089035319	3.688	1
985 ANGPT1	ENST00000517746	p.P454S	c.1360	0.158967893	2.761	1
985 ANGPT1	ENST00000517746	p.H477Y	c.1429	0.225111011	0	1
986 RNF41	ENST0000052656	p.R213H	c.638	0.013377942	6.224	1
986 RNF41	ENST0000052656	p.A311V	c.932	0.013377942	0	1
987 PDE1C	ENST00000396193	p.G334R	c.1000	0.109777641	0	1
987 PDE1C	ENST00000396193	p.R464K	c.1391	0.086136092	3.574	1
987 PDE1C	ENST00000396193	p.H288Y	c.862	0.027975805	5.276	1
988 ALDOB	ENST00000374855	p.R4Q	c.11	1.010893573	0	2
988 ALDOB	ENST00000374855	p.P115S	c.343	0.199144074	6.661	1
988 ALDOB	ENST00000374855	p.A172T	c.514	0.123990727	9.949	1
989 ADSS	ENST00000366535	p.T370M	c.1109	0.039297778	4.715	1
989 ADSS	ENST00000366535	p.K373I	c.1118	0.033328752	4.961	1
989 ADSS	ENST00000366535	p.L405I	c.1213	0.070181616	0	1
991 KLK4	ENST00000598305	p.P16H	c.47	0.015997608	0	1
992 MECR	ENST00000263702	p.M373L	c.1117	0.139455725	2.896	1
992 MECR	ENST00000263702	p.R74S	c.220	0.10606063	8.89	1
992 MECR	ENST00000263702	p.M77I	c.231	0.174503764	0	1
992 MECR	ENST00000263702	p.P130L	c.389	0.020163051	5.814	1
992 MECR	ENST00000263702	p.A142V	c.425	0.126954039	5.624	1
993 CDA	ENST00000375071	p.A88T	c.262	0.079164641	0	1
993 CDA	ENST00000375071	p.T118I	c.353	0.079164641	3.659	1
994 ESR1	ENST00000440973	p.L354M	c.1060	0.326943671	3.353	1
994 ESR1	ENST00000440973	p.H373N	c.1117	0.664359432	2.529	1
994 ESR1	ENST00000440973	p.Y537N	c.1609	2.293240431	0	1
994 ESR1	ENST00000440973	p.Y537C	c.1610	2.293240431	0	1
994 ESR1	ENST00000440973	p.Y537S	c.1610	2.293240431	0	1
994 ESR1	ENST00000440973	p.D538G	c.1613	0.210342843	5.499	1
996 RAC1	ENST00000356142	p.N39S	c.116	0.013859317	0	1
996 RAC1	ENST00000356142	p.S71F	c.212	0.013859317	6.173	1
997 ITGB3	ENST00000559488	p.R386C	c.1156	0.20928367	0	1
997 ITGB3	ENST00000559488	p.S439F	c.1316	0.04907399	4.572	1
997 ITGB3	ENST00000559488	p.S326F	c.977	0.174272209	2.58	1
998 GRM5	ENST00000305447	p.P353T	c.1057	0.006112592	7.354	1
998 GRM5	ENST00000305447	p.V43A	c.128	0.170444639	0	1
998 GRM5	ENST00000305447	p.H45Q	c.135	0.023957298	9.265	1
998 GRM5	ENST00000305447	p.G58R	c.172	0.011178157	9.67	1
998 GRM5	ENST00000305447	p.R68I	c.203	0.012917844	7.342	1
998 GRM5	ENST00000305447	p.D97N	c.289	0.150432268	3.019	1
998 GRM5	ENST00000305447	p.S98Y	c.293	0.05342796	4.968	1
999 SYN3	ENST00000358763	p.P159Q	c.476	0.013048249	6.26	1
999 SYN3	ENST00000358763	p.P190A	c.568	0.013048249	0	1
1000 MGAM	ENST00000475668	p.R1250C	c.3748	1.217105526	0	1
1000 MGAM	ENST00000475668	p.R1250L	c.3749	1.217105526	0	1
1000 MGAM	ENST00000475668	p.Q1254H	c.3762	0.055049587	9.264	1
1000 MGAM	ENST00000475668	p.D1281N	c.3841	1.157150515	3.993	2
1000 MGAM	ENST00000475668	p.R2487K	c.7460	0.191030585	3.476	1
1001 ACACB	ENST00000338432	p.M2152T	c.6455	0.010569127	6.564	1
1001 ACACB	ENST00000338432	p.Y2327H	c.6979	0.010569127	0	1

1002 CCR5	ENST00000292303	p.S185I	c.554	1.022528159	0	2
1002 CCR5	ENST00000292303	p.Q186K	c.556	0.206753621	8.073	1
1002 CCR5	ENST00000292303	p.N258K	c.774	0.244898345	5.732	1
1004 FHIT	ENST00000476844	p.R46H	c.137	0.091378591	3.452	1
1004 FHIT	ENST00000476844	p.V95L	c.283	0.091378591	0	1
1005 TAB1	ENST00000216160	p.A81S	c.241	0.009881871	6.661	1
1005 TAB1	ENST00000216160	p.Q82E	c.244	0.064929447	3.967	1
1005 TAB1	ENST00000216160	p.R83W	c.247	0.01636123	6.023	1
1005 TAB1	ENST00000216160	p.W17C	c.51	0.089205839	0	1
1006 ACAD8	ENST00000281182	p.R79W	c.235	0.139310472	7.33	1
1006 ACAD8	ENST00000281182	p.P148S	c.442	1.006215129	0	1
1006 ACAD8	ENST00000281182	p.P148L	c.443	1.006215129	0	1
1007 ITGA2B	ENST00000262407	p.N670D	c.2008	0.487677731	2.036	1
1007 ITGA2B	ENST00000262407	p.A728V	c.2183	1.243838865	0	1
1007 ITGA2B	ENST00000262407	p.A728Y	c.2183_2182	1.243838865	0	1
1008 CDK8	ENST00000381527	p.R65K	c.194	0.108367195	3.206	1
1008 CDK8	ENST00000381527	p.R150T	c.449	0.108367195	0	1
1009 TGFBR2	ENST00000359013	p.C102R	c.304	0.128503217	6.682	1
1009 TGFBR2	ENST00000359013	p.D128N	c.382	1.009739072	0	1
1009 TGFBR2	ENST00000359013	p.D128G	c.383	1.009739072	0	1
1010 GPCPD1	ENST00000379019	p.R67H	c.200	1.281742281	0	2
1010 GPCPD1	ENST00000379019	p.V87F	c.259	0.008962079	9.946	1
1010 GPCPD1	ENST00000379019	p.H93Y	c.277	0.288728112	2.894	1
1010 GPCPD1	ENST00000379019	p.C23R	c.67	0.31899946	2.774	1
1011 OGT	ENST00000373719	p.T819I	c.2456	0.256559156	3.65	1
1011 OGT	ENST00000373719	p.V843I	c.2527	2.101775396	0	2
1011 OGT	ENST00000373719	p.V843L	c.2527	2.101775396	0	1
1011 OGT	ENST00000373719	p.G915C	c.2743	0.059185488	6.48	1
1011 OGT	ENST00000373719	p.R994C	c.2980	0.110254257	6.716	1
1011 OGT	ENST00000373719	p.H326Y	c.976	0.02178008	9.48	1
1012 F5	ENST00000367796	p.S83L	c.248	0.020234268	8.248	1
1012 F5	ENST00000367796	p.H270Y	c.808	0.283855941	0	1
1012 F5	ENST00000367796	p.I308M	c.924	0.227843498	2.365	1
1012 F5	ENST00000367796	p.S310C	c.929	0.103230734	3.532	1
1013 PTPRG	ENST00000474889	p.A885V	c.2654	0.065835065	3.925	1
1013 PTPRG	ENST00000474889	p.R1099H	c.3296	0.065835065	0	1
1014 ATL1	ENST00000441560	p.K138R	c.413	0.006992383	7.16	1
1014 ATL1	ENST00000441560	p.G232R	c.694	0.006992383	0	1
1015 IMPDH2	ENST00000326739	p.S388C	c.1163	0.014298425	6.128	1
1015 IMPDH2	ENST00000326739	p.S416Y	c.1247	0.012352955	6.339	1
1015 IMPDH2	ENST00000326739	p.I330T	c.989	0.026651379	0	1
1016 DDC	ENST00000444124	p.T69M	c.206	1.088510965	0	2
1016 DDC	ENST00000444124	p.P31T	c.91	0.17702193	3.498	1
1017 CTSS	ENST00000368985	p.S90F	c.269	1.12174852	0	1
1017 CTSS	ENST00000368985	p.S90Y	c.269	1.12174852	0	1
1017 CTSS	ENST00000368985	p.L91F	c.273	0.050932404	9.461	1
1017 CTSS	ENST00000368985	p.S135Y	c.404	0.402925357	4.519	1
1017 CTSS	ENST00000368985	p.G137V	c.410	0.307220094	3.92	1
1017 CTSS	ENST00000368985	p.G176E	c.527	0.391742687	6.553	1

1018 KIT	ENST00000288135	p.N566S	c.1697	0.091747442	9.731	1
1018 KIT	ENST00000288135	p.V603D	c.1808	0.662711796	3.568	1
1018 KIT	ENST00000288135	p.G812V	c.2435	0.425726186	5.859	1
1018 KIT	ENST00000288135	p.D816Y	c.2446	4.102724845	0	1
1018 KIT	ENST00000288135	p.D816V	c.2447	4.102724845	0	4
1019 GRB2	ENST00000316804	p.I53R	c.158	0.04118545	5.416	1
1019 GRB2	ENST00000316804	p.V154L	c.460	0.014230098	9.226	1
1019 GRB2	ENST00000316804	p.Q156R	c.467	0.158045879	0	1
1019 GRB2	ENST00000316804	p.R215Q	c.644	0.148628289	2.911	1
1020 CSF1R	ENST00000286301	p.A226V	c.677	0.015916149	6.069	1
1020 CSF1R	ENST00000286301	p.V229I	c.685	0.069556584	3.867	1
1020 CSF1R	ENST00000286301	p.R256C	c.766	0.083431014	0	1
1021 PDE5A	ENST00000354960	p.I371V	c.1111	0.042955897	0	1
1021 PDE5A	ENST00000354960	p.I503V	c.1507	0.042955897	4.541	1
1022 SLAMF6	ENST00000368057	p.Q143E	c.427	0.002165626	8.851	1
1022 SLAMF6	ENST00000368057	p.P185H	c.554	0.002165626	0	1
1023 ALDOB	ENST00000374855	p.S65F	c.194	0.641997323	2.3	1
1023 ALDOB	ENST00000374855	p.I70T	c.209	0.540483132	2.694	1
1023 ALDOB	ENST00000374855	p.E100K	c.298	2.364628772	0	3
1023 ALDOB	ENST00000374855	p.K101R	c.302	0.068021259	7.152	1
1024 ITGAL	ENST00000356798	p.D156N	c.466	0.21324622	0	1
1024 ITGAL	ENST00000356798	p.S190L	c.569	0.032711181	5.177	1
1024 ITGAL	ENST00000356798	p.F208L	c.624	0.200526197	2.447	1
1024 ITGAL	ENST00000356798	p.E248G	c.743	0.0142779	8.82	1
1025 CFTR	ENST00000003084	p.R487I	c.1460	0.312538556	9.25	1
1025 CFTR	ENST00000003084	p.S511F	c.1532	1.011851479	0	2
1025 CFTR	ENST00000003084	p.D565Y	c.1693	0.20516232	6.614	1
1026 CD1A	ENST00000289429	p.D58G	c.173	0.00504126	0	1
1026 CD1A	ENST00000289429	p.E84K	c.250	0.00504126	7.632	1
1027 CYP11B2	ENST00000323110	p.E457Q	c.1369	0.012006837	7.38	1
1027 CYP11B2	ENST00000323110	p.L158I	c.472	1.006003419	0	1
1027 CYP11B2	ENST00000323110	p.L158P	c.473	1.006003419	0	1
1028 MAN1B1	ENST00000535144	p.T361M	c.1082	0.078599106	5.216	1
1028 MAN1B1	ENST00000535144	p.R365Q	c.1094	0.078416565	3.711	1
1029 RAB7A	ENST00000265062	p.M51L	c.151	0.016504463	5.921	1
1029 RAB7A	ENST00000265062	p.D54H	c.160	0.006159376	7.343	1
1029 RAB7A	ENST00000265062	p.R171Q	c.512	0.022663839	0	1
1030 FGB	ENST00000302068	p.S237P	c.709	0.089953302	3.611	1
1030 FGB	ENST00000302068	p.E253D	c.759	0.10720848	3.335	1
1030 FGB	ENST00000302068	p.G317C	c.949	0.180940856	0	1
1031 STK4	ENST00000372806	p.R447T	c.1340	0.026998068	0	1
1031 STK4	ENST00000372806	p.R470W	c.1408	0.026998068	5.211	1
1032 MASP1	ENST00000296280	p.T215A	c.643	0.081798297	3.871	1
1032 MASP1	ENST00000296280	p.L226M	c.676	0.008728806	6.84	1
1032 MASP1	ENST00000296280	p.K254N	c.762	0.00755161	7.049	1
1032 MASP1	ENST00000296280	p.L276P	c.827	0.084626382	0	1
1033 FUT8	ENST00000360689	p.C204S	c.611	0.028066637	0	1
1033 FUT8	ENST00000360689	p.S270F	c.809	0.028066637	5.155	1
1035 HNF4A	ENST00000316099	p.A154V	c.461	0.033704622	9.877	1

1035 HNF4A	ENST00000316099	p.A158V	c.473	0.14631894	6.991	1
1035 HNF4A	ENST00000316099	p.V199I	c.595	0.019262338	7.133	1
1035 HNF4A	ENST00000316099	p.W201R	c.601	0.399120771	3.596	1
1035 HNF4A	ENST00000316099	p.A287V	c.860	0.104609205	8.791	1
1035 HNF4A	ENST00000316099	p.K290T	c.869	0.135555113	6.997	1
1035 HNF4A	ENST00000316099	p.F294L	c.882	1.10883391	0	2
1036 ACO1	ENST00000379923	p.F355V	c.1063	0.027299153	6.195	1
1036 ACO1	ENST00000379923	p.S38L	c.113	1.013649576	0	2
1037 REV1	ENST00000258428	p.P62S	c.184	0.034081415	0	1
1037 REV1	ENST00000258428	p.R110Q	c.329	0.007872295	6.989	1
1037 REV1	ENST00000258428	p.E116D	c.348	0.012301687	6.345	1
1037 REV1	ENST00000258428	p.I118M	c.354	0.026458902	6.168	1
1038 DSP	ENST00000379802	p.N437S	c.1310	0.015596116	7.435	1
1038 DSP	ENST00000379802	p.S523C	c.1568	1.005778857	0	1
1038 DSP	ENST00000379802	p.S523F	c.1568	1.005778857	0	1
1039 TREM1	ENST00000589614	p.D38N	c.112	0.280444792	3.374	1
1039 TREM1	ENST00000589614	p.V98F	c.292	0.111520933	6.888	1
1039 TREM1	ENST00000589614	p.R128S	c.382	1.104898178	0	1
1039 TREM1	ENST00000589614	p.R128H	c.383	1.104898178	0	1
1040 USO1	ENST00000538159	p.V189I	c.565	1.066939426	0	1
1040 USO1	ENST00000538159	p.V189A	c.566	1.066939426	0	1
1040 USO1	ENST00000538159	p.C234S	c.700	0.133878853	3.901	1
1041 FDX1	ENST00000260270	p.S88F	c.263	0.002002475	0	1
1041 FDX1	ENST00000260270	p.T109S	c.326	0.002002475	8.964	1
1042 ENPEP	ENST00000265162	p.P145Q	c.434	0.13763815	3.255	1
1042 ENPEP	ENST00000265162	p.E146D	c.438	0.156660984	2.818	1
1042 ENPEP	ENST00000265162	p.V169M	c.505	0.019924921	9.048	1
1042 ENPEP	ENST00000265162	p.T189A	c.565	0.248444539	0	1
1043 TGM3	ENST00000381458	p.R53I	c.158	0.072192862	3.792	1
1043 TGM3	ENST00000381458	p.E653D	c.1959	0.072192862	0	1
1044 SERPINB5	ENST00000382771	p.I159S	c.476	0.092397652	3.436	1
1044 SERPINB5	ENST00000382771	p.M307L	c.919	0.092397652	0	1
1045 GSTK1	ENST00000479303	p.R101H	c.302	0.011469927	6.446	1
1045 GSTK1	ENST00000479303	p.T217M	c.650	0.011469927	0	1
1046 PLCG1	ENST00000373272	p.S705C	c.2114	0.039836374	6.281	1
1046 PLCG1	ENST00000373272	p.L752V	c.2254	1.012859693	0	1
1046 PLCG1	ENST00000373272	p.L752Q	c.2255	1.012859693	0	1
1047 PTBP2	ENST00000394184	p.E364Q	c.1090	0.048579667	7.148	1
1047 PTBP2	ENST00000394184	p.Q369R	c.1106	0.008379036	7.899	1
1047 PTBP2	ENST00000394184	p.A471T	c.1411	0.019210147	7.399	1
1047 PTBP2	ENST00000394184	p.Q523E	c.1567	1.017165178	0	1
1047 PTBP2	ENST00000394184	p.Q523P	c.1568	1.017165178	0	1
1048 PARK2	ENST00000366898	p.G160E	c.479	0.176331008	0	1
1048 PARK2	ENST00000366898	p.K211N	c.633	0.120574256	3.14	1
1048 PARK2	ENST00000366898	p.G213V	c.638	0.070025475	3.991	1
1049 CSNK2A1	ENST00000349736	p.P92T	c.274	0.046135945	6.389	1
1049 CSNK2A1	ENST00000349736	p.W176L	c.527	1.027907614	0	1
1049 CSNK2A1	ENST00000349736	p.W176C	c.528	1.027907614	0	1
1049 CSNK2A1	ENST00000349736	p.D214Y	c.640	0.044786981	5.968	1

1050 HDAC1	ENST00000373548	p.H167Y	c.499	0.07209285	0	1
1050 HDAC1	ENST00000373548	p.A256V	c.767	0.07209285	3.794	1
1051 IDE	ENST00000265986	p.D698A	c.2093	0.19613398	2.381	1
1051 IDE	ENST00000265986	p.P760L	c.2279	0.215075339	0	1
1051 IDE	ENST00000265986	p.Q914K	c.2740_2739	0.068010976	9.438	1
1051 IDE	ENST00000265986	p.R1000C	c.2998	0.092384301	5.529	1
1052 CNDP1	ENST00000358821	p.R376H	c.1127	0.017658557	7.391	1
1052 CNDP1	ENST00000358821	p.P417R	c.1250	1.005957819	0	2
1053 STIM2	ENST00000382009	p.D186Y	c.556	0.194251817	2.364	1
1053 STIM2	ENST00000382009	p.L286V	c.856	0.194251817	0	1
1054 MARK1	ENST00000366917	p.N70Y	c.208	0.048037156	0	1
1054 MARK1	ENST00000366917	p.N205D	c.613	0.01721508	6.091	1
1054 MARK1	ENST00000366917	p.E206K	c.616	0.033632987	5.036	1
1054 MARK1	ENST00000366917	p.N211K	c.633	0.037134486	8.436	1
1055 ASB9	ENST00000380488	p.R143W	c.427	0.139500986	0	1
1055 ASB9	ENST00000380488	p.P170T	c.508	0.023576015	5.568	1
1055 ASB9	ENST00000380488	p.Q179R	c.536	0.120917547	3.078	1
1056 CP	ENST00000264613	p.G170R	c.508	0.008572906	6.866	1
1056 CP	ENST00000264613	p.D171N	c.511	0.011784219	6.407	1
1056 CP	ENST00000264613	p.N306K	c.918	0.020357125	0	1
1057 PTK2	ENST00000519419	p.I100V	c.298	0.013396501	6.222	1
1057 PTK2	ENST00000519419	p.R152K	c.455	0.013396501	0	1
1058 KDR	ENST00000263923	p.R842L	c.2525	0.209477867	6.066	1
1058 KDR	ENST00000263923	p.R1032Q	c.3095	2.19518704	0	3
1058 KDR	ENST00000263923	p.D1052N	c.3154	0.157333724	9.599	1
1058 KDR	ENST00000263923	p.D1056N	c.3166	0.1900731	4.036	1
1058 KDR	ENST00000263923	p.G1063E	c.3188	0.362990083	3.083	1
1059 ADA	ENST00000372874	p.V12M	c.34	0.081729459	0	1
1059 ADA	ENST00000372874	p.A329V	c.986	0.081729459	3.613	1
1060 CAND1	ENST00000545606	p.L184F	c.552	0.007380836	7.082	1
1060 CAND1	ENST00000545606	p.T231A	c.691	0.015894525	0	1
1060 CAND1	ENST00000545606	p.Y274C	c.821	0.008513688	6.876	1
1061 F2	ENST00000311907	p.T351I	c.1052	0.131387946	7.751	1
1061 F2	ENST00000311907	p.K469N	c.1407	0.175569244	8.594	1
1061 F2	ENST00000311907	p.P471A	c.1411	2.149472561	0	1
1061 F2	ENST00000311907	p.P471S	c.1411	2.149472561	0	2
1061 F2	ENST00000311907	p.L492V	c.1474	0.62245784	3.321	1
1061 F2	ENST00000311907	p.G569E	c.1706	0.153806494	7.677	1
1061 F2	ENST00000311907	p.P577S	c.1729	0.436839274	4.745	1
1062 CUTC	ENST00000370476	p.P154L	c.461	0.010089511	6.631	1
1062 CUTC	ENST00000370476	p.R187Q	c.560	0.022967043	0	1
1062 CUTC	ENST00000370476	p.S216L	c.647	0.012877533	6.279	1
1063 GBP1	ENST00000370473	p.M139V	c.415	0.009545259	6.711	1
1063 GBP1	ENST00000370473	p.L224I	c.670	0.009545259	0	1
1064 CXCR1	ENST00000295683	p.R203Q	c.608	0.050520054	0	1
1064 CXCR1	ENST00000295683	p.T266I	c.797	0.050520054	4.307	1
1065 PMS2	ENST00000265849	p.L359F	c.1077	0.027699428	5.174	1
1065 PMS2	ENST00000265849	p.G361R	c.1081	0.022765611	5.457	1
1065 PMS2	ENST00000265849	p.M362I	c.1086	0.012056876	6.374	1

1065	PMS2	ENST00000265849	p.Y313C	c.938	0.062521916	0	1
1066	FLT3	ENST00000380982	p.H276Y	c.826	0.014680043	6.09	1
1066	FLT3	ENST00000380982	p.R311Q	c.932	0.014680043	0	1
1067	AKR1C1	ENST00000434459	p.A44T	c.130	0.059829466	4.063	1
1067	AKR1C1	ENST00000434459	p.R278T	c.833	0.059829466	0	1
1068	SAE1	ENST00000270225	p.K335T	c.1004	0.009786441	0	1
1068	SAE1	ENST00000270225	p.D290E	c.870	0.009786441	6.675	1
1069	PTPRR	ENST00000283228	p.D385N	c.1153	0.020375793	5.617	1
1069	PTPRR	ENST00000283228	p.C645Y	c.1934	0.020375793	0	1
1070	MSH6	ENST00000234420	p.D422G	c.1265	0.017349044	5.849	1
1070	MSH6	ENST00000234420	p.L423I	c.1267	0.04993988	4.658	1
1070	MSH6	ENST00000234420	p.V480L	c.1438	0.064283585	0	1
1070	MSH6	ENST00000234420	p.K519N	c.1557	0.007324774	7.093	1
1071	C5	ENST00000223642	p.H753Y	c.2257	0.049496927	5.46	1
1071	C5	ENST00000223642	p.Y1399C	c.4196	0.277881467	2.895	1
1071	C5	ENST00000223642	p.I1402T	c.4205	0.095532135	4.497	1
1071	C5	ENST00000223642	p.R1478W	c.4432	1.201441288	0	2
1072	PTPN3	ENST00000374541	p.R749Q	c.2246	0.239956717	0	1
1072	PTPN3	ENST00000374541	p.D811E	c.2433	0.140402071	2.988	1
1072	PTPN3	ENST00000374541	p.H812L	c.2435	0.128270674	3.134	1
1073	ARHGEF4	ENST00000409359	p.P972S	c.2914	0.179267071	8.198	1
1073	ARHGEF4	ENST00000409359	p.A982T	c.2944	0.098824004	8.597	1
1073	ARHGEF4	ENST00000409359	p.T984M	c.2951	0.11013831	8.43	1
1073	ARHGEF4	ENST00000409359	p.G985R	c.2952_2953	1.043548238	0	1
1073	ARHGEF4	ENST00000409359	p.G985V	c.2954	1.043548238	0	1
1074	HSPA8	ENST00000227378	p.K128E	c.382	0.106727214	3.228	1
1074	HSPA8	ENST00000227378	p.A165S	c.493	0.106727214	0	1
1076	CASQ1	ENST00000368078	p.R48C	c.142	0.032163285	0	1
1076	CASQ1	ENST00000368078	p.V98I	c.292	0.024398015	6.194	1
1076	CASQ1	ENST00000368078	p.G107R	c.319	0.018504244	5.756	1
1077	EIF4A3	ENST00000269349	p.D77H	c.229	0.122188783	4.142	1
1077	EIF4A3	ENST00000269349	p.A80T	c.238	0.323377284	2.669	1
1077	EIF4A3	ENST00000269349	p.R238C	c.712	1.213876993	0	2
1078	CRABP2	ENST00000368222	p.V59L	c.175	0.066038747	7.053	1
1078	CRABP2	ENST00000368222	p.R60H	c.179	1.155257145	0	2
1078	CRABP2	ENST00000368222	p.A33D	c.98	0.34643023	2.759	1
1079	DNM3	ENST00000355305	p.L71R	c.212	0.077625739	7.998	1
1079	DNM3	ENST00000355305	p.E79K	c.235	0.117296068	6.529	1
1079	DNM3	ENST00000355305	p.V129M	c.385	1.01474034	0	2
1080	HMBS	ENST00000537841	p.P89F	c.265_266	0.090997179	5.671	1
1080	HMBS	ENST00000537841	p.Y196H	c.586	0.358136198	3.139	1
1080	HMBS	ENST00000537841	p.R229H	c.686	1.147775031	0	2
1080	HMBS	ENST00000537841	p.V250M	c.748	0.158129548	6.095	1
1081	GBE1	ENST00000429644	p.V78I	c.232	0.085540768	0	1
1081	GBE1	ENST00000429644	p.Y114C	c.341	0.038475484	4.874	1
1081	GBE1	ENST00000429644	p.L142F	c.426	0.055812259	4.281	1
1082	FBXO4	ENST00000281623	p.G183E	c.548	0.004954654	0	1
1082	FBXO4	ENST00000281623	p.I235M	c.705	0.004954654	7.657	1
1083	CPSF3	ENST00000238112	p.K410T	c.1229	0.038233242	4.807	1

1083	CPSF3	ENST00000238112	p.P411L	c.1232	0.072777601	3.831	1
1083	CPSF3	ENST00000238112	p.P198R	c.593	0.105990506	0	1
1084	CTSH	ENST00000220166	p.K133I	c.398	0.160205991	2.642	1
1084	CTSH	ENST00000220166	p.S163F	c.488	0.160205991	0	1
1085	RPS11	ENST00000270625	p.R84G	c.250	0.049752412	0	1
1085	RPS11	ENST00000270625	p.P115S	c.343	0.048731553	4.359	1
1085	RPS11	ENST00000270625	p.T137A	c.409	0.005201675	9.936	1
1086	RBMS2	ENST00000262031	p.K55N	c.165	0.20862732	0	1
1086	RBMS2	ENST00000262031	p.Q129H	c.387	0.20862732	2.261	1
1087	BRAF	ENST00000288602	p.K205Q	c.613	0.009532035	6.713	1
1087	BRAF	ENST00000288602	p.E228V	c.683	0.009532035	0	1
1088	SERPINB1	ENST00000380739	p.P348R	c.1044_1043	0.214309275	3.34	1
1088	SERPINB1	ENST00000380739	p.E349K	c.1045	0.186245444	3.562	1
1088	SERPINB1	ENST00000380739	p.R215H	c.644	0.012821764	8.49	1
1088	SERPINB1	ENST00000380739	p.E268K	c.802	1.186206823	0	1
1088	SERPINB1	ENST00000380739	p.E268G	c.803	1.186206823	0	1
1089	C8B	ENST00000371237	p.W551C	c.1653	1.140463155	0	2
1089	C8B	ENST00000371237	p.R561C	c.1681	1.134014617	6.315	2
1089	C8B	ENST00000371237	p.E586Q	c.1756	0.452518175	3.116	1
1090	GMPS	ENST00000496455	p.R337T	c.1010	0.058940108	4.343	1
1090	GMPS	ENST00000496455	p.Y526C	c.1577	0.082559642	0	1
1090	GMPS	ENST00000496455	p.W692L	c.2075	0.042949729	4.909	1
1091	DSG2	ENST00000261590	p.W51L	c.152	0.374051511	2.008	1
1091	DSG2	ENST00000261590	p.I73M	c.219	0.334061289	2.261	1
1091	DSG2	ENST00000261590	p.L143F	c.429	0.457244862	0	1
1092	AKR1D1	ENST00000242375	p.R261C	c.781	1.009188213	0	2
1092	AKR1D1	ENST00000242375	p.N283K	c.849	0.118533401	6.766	1
1093	BLM	ENST00000355112	p.R643C	c.1927	0.546029843	3.23	1
1093	BLM	ENST00000355112	p.Y784C	c.2351	0.18993881	8.323	1
1093	BLM	ENST00000355112	p.S823F	c.2468	0.416285357	5.586	1
1093	BLM	ENST00000355112	p.P825Q	c.2474	2.130520397	0	2
1093	BLM	ENST00000355112	p.P825H	c.2474_2475	2.130520397	0	1
1094	ARR3	ENST00000307959	p.R370W	c.1108	0.02547101	5.295	1
1094	ARR3	ENST00000307959	p.S123C	c.368	0.02547101	0	1
1095	PTPRS	ENST00000372412	p.R1422C	c.4264	0.023067413	5.438	1
1095	PTPRS	ENST00000372412	p.P1470H	c.4409	0.023067413	0	1
1096	TCN2	ENST00000215838	p.L337I	c.1009	0.136118155	3.144	1
1096	TCN2	ENST00000215838	p.L398I	c.1192	0.143847959	2.952	1
1096	TCN2	ENST00000215838	p.E421V	c.1262	0.24235465	0	1
1097	AKT2	ENST00000424901	p.T199S	c.596	0.013849714	6.174	1
1097	AKT2	ENST00000424901	p.R274P	c.821	0.013849714	0	1
1098	PKLR	ENST00000342741	p.R449L	c.1346	0.02121164	6.559	1
1098	PKLR	ENST00000342741	p.R531C	c.1591	1.01060582	0	1
1098	PKLR	ENST00000342741	p.R531H	c.1592	1.01060582	0	1
1099	F5	ENST00000367796	p.S2072Y	c.6215	0.121322904	4.064	1
1099	F5	ENST00000367796	p.K2137N	c.6411	0.104743598	8.434	1
1099	F5	ENST00000367796	p.T2139M	c.6416	1.091897417	0	2
1099	F5	ENST00000367796	p.I2201F	c.6601	0.159143568	5.097	1
1101	BACE2	ENST00000330333	p.R372H	c.1115	0.241126943	0	1

1101 BACE2	ENST00000330333	p.I444S	c.1331	0.12703015	3.256	1
1101 BACE2	ENST00000330333	p.W154C	c.462	0.0172084	6.156	1
1101 BACE2	ENST00000330333	p.T155M	c.464	0.136959613	3.03	1
1102 CUL3	ENST00000264414	p.R173L	c.518	0.13009496	4.003	1
1102 CUL3	ENST00000264414	p.E243K	c.727	1.06237017	0	2
1103 AKR7A2	ENST00000235835	p.A338T	c.1012	0.083261205	0	1
1103 AKR7A2	ENST00000235835	p.A279T	c.835	0.048293264	4.424	1
1103 AKR7A2	ENST00000235835	p.A283T	c.847	0.03838507	4.769	1
1105 EPHB2	ENST00000400191	p.W43L	c.128	0.021477948	6.541	1
1105 EPHB2	ENST00000400191	p.R74Q	c.221	1.010738974	0	2
1106 SCLY	ENST00000254663	p.Y269F	c.806	0.009361789	0	1
1106 SCLY	ENST00000254663	p.K315N	c.945	0.009361789	6.739	1
1107 CAMK2B	ENST00000395749	p.G166W	c.496	0.031576608	0	1
1107 CAMK2B	ENST00000395749	p.P243L	c.728	0.031576608	4.985	1
1108 ACTN2	ENST00000542672	p.E386K	c.1156	1.060948443	0	2
1108 ACTN2	ENST00000542672	p.T716M	c.2147	0.011335564	7.463	1
1108 ACTN2	ENST00000542672	p.R721C	c.2161	0.12908605	4.741	1
1108 ACTN2	ENST00000542672	p.R307L	c.920	0.032667503	5.936	1
1108 ACTN2	ENST00000542672	p.R328Q	c.983	0.175411853	9.332	1
1110 SERPINA10	ENST00000261994	p.E392K	c.1174	0.062558053	4.394	1
1110 SERPINA10	ENST00000261994	p.D247H	c.739	0.068180854	0	1
1110 SERPINA10	ENST00000261994	p.G271D	c.812	0.021597943	5.6	1
1111 MEN1	ENST00000394376	p.D348N	c.1042_1041	0.013267129	0	1
1111 MEN1	ENST00000394376	p.G424D	c.1271	0.013267129	6.236	1
1112 PTPRM	ENST00000400060	p.L125Q	c.374	0.007119541	7.134	1
1112 PTPRM	ENST00000400060	p.V157L	c.469	0.007119541	0	1
1113 CR1	ENST00000367052	p.A1405T	c.4213	0.020319377	0	1
1113 CR1	ENST00000367052	p.R1427H	c.4280	0.020319377	5.621	1
1114 NQO2	ENST00000380430	p.Q101H	c.303	0.073324167	6.205	1
1114 NQO2	ENST00000380430	p.A143V	c.428	0.083968994	0	1
1114 NQO2	ENST00000380430	p.P187T	c.559	0.070413702	3.828	1
1115 LHX9	ENST00000367387	p.M270T	c.809	0.293730891	1.943	1
1115 LHX9	ENST00000367387	p.H277N	c.829	0.16306394	2.95	1
1115 LHX9	ENST00000367387	p.G305C	c.913	0.389483182	0	1
1116 ESR2	ENST00000341099	p.D421G	c.1262	0.061292953	6.157	1
1116 ESR2	ENST00000341099	p.S422I	c.1265	0.431111754	2.353	1
1116 ESR2	ENST00000341099	p.R501C	c.1501	0.039684138	5.79	1
1116 ESR2	ENST00000341099	p.E321K	c.961	0.076933355	7.259	1
1116 ESR2	ENST00000341099	p.D326H	c.976	1.234354353	0	1
1116 ESR2	ENST00000341099	p.D326G	c.977	1.234354353	0	1
1117 ESYT2	ENST00000251527	p.R569C	c.1705	0.027950153	0	1
1117 ESYT2	ENST00000251527	p.L592I	c.1774	0.027950153	5.161	1
1118 KCNK4	ENST00000539216	p.R117C	c.349	0.01683958	0	1
1118 KCNK4	ENST00000539216	p.A247T	c.739	0.01683958	5.892	1
1119 TDRD5	ENST00000444136	p.L48F	c.142	0.066661611	3.907	1
1119 TDRD5	ENST00000444136	p.I7T	c.20	0.066661611	0	1
1120 ITGAX	ENST00000562522	p.E348K	c.1042	0.097845027	0	1
1120 ITGAX	ENST00000562522	p.A369S	c.1105	0.007411596	7.076	1
1120 ITGAX	ENST00000562522	p.G371R	c.1111	0.09043343	3.467	1

1121	TPP1	ENST00000299427	p.R375C	c.1123	1.120414244	0	2
1121	TPP1	ENST00000299427	p.S413N	c.1238	0.052706643	5.313	1
1121	TPP1	ENST00000299427	p.D328Y	c.982	0.192914364	3.392	1
1122	AASDHPPT	ENST00000278618	p.R38L	c.113	0.076150641	0	1
1122	AASDHPPT	ENST00000278618	p.P286L	c.857	0.076150641	3.715	1
1123	DUSP22	ENST00000419235	p.V96M	c.286	0.056838016	4.137	1
1123	DUSP22	ENST00000419235	p.V118L	c.352	0.056838016	0	1
1124	CPA1	ENST0000011292	p.Q359E	c.1075	0.036906021	0	1
1124	CPA1	ENST0000011292	p.K319T	c.956	0.036906021	4.76	1
1125	TSN	ENST00000389682	p.G48S	c.142	0.022939854	5.446	1
1125	TSN	ENST00000389682	p.T160N	c.479	0.045457242	0	1
1125	TSN	ENST00000389682	p.R182H	c.545	0.03324615	6.45	1
1125	TSN	ENST00000389682	p.V208L	c.622	0.011079219	6.496	1
1126	TGM3	ENST00000381458	p.D674H	c.2020	1.006857983	0	1
1126	TGM3	ENST00000381458	p.D674N	c.2020	1.006857983	0	1
1126	TGM3	ENST00000381458	p.P247S	c.739	0.013715966	7.188	1
1127	OTC	ENST0000039007	p.E87K	c.259	0.238741928	8.924	1
1127	OTC	ENST0000039007	p.R92Q	c.275	1.018301663	0	2
1127	OTC	ENST0000039007	p.R141P	c.422	0.280503521	6.082	1
1127	OTC	ENST0000039007	p.L163P	c.488	0.117299074	9.399	1
1128	CXCL10	ENST00000306602	p.A53P	c.157	0.083620472	3.58	1
1128	CXCL10	ENST00000306602	p.E92V	c.275	0.083620472	0	1
1129	CMA1	ENST00000250378	p.K49E	c.145	0.389320354	4.554	1
1129	CMA1	ENST00000250378	p.V61M	c.181	0.083419964	6.94	1
1129	CMA1	ENST00000250378	p.T63M	c.188	1.255004527	0	2
1129	CMA1	ENST00000250378	p.H66Q	c.198	0.027139473	8.56	1
1129	CMA1	ENST00000250378	p.W149L	c.446	0.393561601	6.661	1
1129	CMA1	ENST00000250378	p.G201R	c.601	0.735858108	2.636	1
1129	CMA1	ENST00000250378	p.I22V	c.64	0.299648841	8.564	1
1129	CMA1	ENST00000250378	p.R221W	c.661	0.062230273	5.146	1
1130	RAB1B	ENST00000311481	p.Y88C	c.263	0.024066632	0	1
1130	RAB1B	ENST00000311481	p.L117F	c.349	0.013530785	7.67	1
1130	RAB1B	ENST00000311481	p.V130A	c.389	0.006726166	7.216	1
1130	RAB1B	ENST00000311481	p.T150M	c.449	0.021050834	6.33	1
1131	FGB	ENST00000302068	p.E339Q	c.1015	1.044688252	0	2
1131	FGB	ENST00000302068	p.L341S	c.1022	0.086553041	8.536	1
1131	FGB	ENST00000302068	p.S371L	c.1112	0.017603425	6.828	1
1131	FGB	ENST00000302068	p.E275K	c.823	0.147549862	4.913	1
1132	PRKAR1B	ENST00000403562	p.Y113H	c.337	0.009112104	6.778	1
1132	PRKAR1B	ENST00000403562	p.G208C	c.622	0.005336095	7.55	1
1132	PRKAR1B	ENST00000403562	p.R232Q	c.695	0.014448199	0	1
1133	CTPS2	ENST00000359276	p.Y42C	c.125	0.109509946	0	1
1133	CTPS2	ENST00000359276	p.G91V	c.272	0.092450045	3.462	1
1133	CTPS2	ENST00000359276	p.K92N	c.276	0.020465206	5.736	1
1134	TRPV4	ENST00000261740	p.R160Q	c.479	0.011557142	0	1
1134	TRPV4	ENST00000261740	p.R206H	c.617	0.005380664	7.538	1
1134	TRPV4	ENST00000261740	p.D208N	c.622	0.006176477	7.339	1
1135	RAP1GAP	ENST00000374763	p.F211V	c.631	0.030482399	5.607	1
1135	RAP1GAP	ENST00000374763	p.G289R	c.865	0.179616884	0	1

1135	RAP1GAP	ENST00000374763	p.S311F	c.932	0.16422164	2.652	1
1136	PVRL3	ENST00000485303	p.R242M	c.725	0.118585539	0	1
1136	PVRL3	ENST00000485303	p.L263V	c.787	0.118585539	3.076	1
1137	RNGTT	ENST00000369485	p.R452Q	c.1355	0.083645201	3.825	1
1137	RNGTT	ENST00000369485	p.D455A	c.1364	0.048850489	4.538	1
1137	RNGTT	ENST00000369485	p.V274I	c.820	0.113605589	0	1
1138	RHCG	ENST00000268122	p.D426Y	c.1276	0.358874869	2.57	1
1138	RHCG	ENST00000268122	p.C429S	c.1285	0.284132094	2.932	1
1138	RHCG	ENST00000268122	p.S207I	c.620	1.299437007	0	1
1138	RHCG	ENST00000268122	p.S207N	c.620	1.299437007	0	1
1139	ARHGEF12	ENST00000397843	p.V73I	c.217	0.048356806	0	1
1139	ARHGEF12	ENST00000397843	p.A103V	c.308	0.041006602	4.608	1
1139	ARHGEF12	ENST00000397843	p.R113Q	c.338	0.037640511	7.088	1
1140	KDM4C	ENST00000381309	p.V49L	c.145	0.066661611	0	1
1140	KDM4C	ENST00000381309	p.E268K	c.802	0.066661611	3.907	1
1142	SMAD1	ENST00000302085	p.H335N	c.1003	0.018325546	6.77	1
1142	SMAD1	ENST00000302085	p.I382N	c.1145	1.021725569	0	1
1142	SMAD1	ENST00000302085	p.I382M	c.1146	1.021725569	0	1
1142	SMAD1	ENST00000302085	p.R413C	c.1237	0.019382179	7.779	1
1142	SMAD1	ENST00000302085	p.L440V	c.1318	0.045253893	6.964	1
1143	GRIA2	ENST00000296526	p.A149T	c.445	0.095449995	6.495	1
1143	GRIA2	ENST00000296526	p.R205L	c.614	1.023236058	0	1
1143	GRIA2	ENST00000296526	p.R205Q	c.614	1.023236058	0	1
1143	GRIA2	ENST00000296526	p.V230I	c.688	0.024298314	6.363	1
1144	DDR1	ENST00000513240	p.R128H	c.383	0.011589804	6.431	1
1144	DDR1	ENST00000513240	p.G227V	c.680	0.011589804	0	1
1145	FAP	ENST00000188790	p.F350L	c.1050	0.058395459	4.098	1
1145	FAP	ENST00000188790	p.P544H	c.1631	0.058395459	0	1
1146	YWHAE	ENST00000264335	p.L44F	c.130	0.040190546	0	1
1146	YWHAE	ENST00000264335	p.A11V	c.32	0.040190546	4.637	1
1147	SERPINB5	ENST00000382771	p.V57L	c.169	0.084905393	0	1
1147	SERPINB5	ENST00000382771	p.G292W	c.874	0.084905393	3.558	1
1148	CYP2E1	ENST00000252945	p.R146W	c.436	0.187002846	7.943	1
1148	CYP2E1	ENST00000252945	p.I183M	c.549	0.174031821	4.699	1
1148	CYP2E1	ENST00000252945	p.L184F	c.550	0.229806209	2.361	1
1148	CYP2E1	ENST00000252945	p.R186L	c.557	0.024302434	6.117	1
1148	CYP2E1	ENST00000252945	p.T266S	c.797	0.291671873	0	1
1148	CYP2E1	ENST00000252945	p.I289M	c.867	0.064040479	4.702	1
1148	CYP2E1	ENST00000252945	p.G300R	c.898	0.034908961	9.266	1
1149	PLCB3	ENST00000279230	p.R430C	c.1288	0.008572906	6.866	1
1149	PLCB3	ENST00000279230	p.E588V	c.1763	0.008572906	0	1
1150	MAPK10	ENST00000359221	p.M238L	c.712	0.109348096	3.193	1
1150	MAPK10	ENST00000359221	p.L290M	c.868	0.109348096	0	1
1151	TBX3	ENST00000257566	p.P103T	c.307	1.086090628	0	1
1151	TBX3	ENST00000257566	p.P103Q	c.309_308	1.086090628	0	1
1151	TBX3	ENST00000257566	p.R251Q	c.752	0.172181256	3.538	1
1152	RBBP7	ENST00000380084	p.R172C	c.514	3.135554962	0	2
1152	RBBP7	ENST00000380084	p.R172H	c.515	3.135554962	0	2
1152	RBBP7	ENST00000380084	p.Y224C	c.671	0.497461371	3.05	1

1152 RBBP7	ENST00000380084	p.N320H	c.958	0.067555558	6.077	1
1153 PNPT1	ENST00000447944	p.I462M	c.1386	0.006624375	7.238	1
1153 PNPT1	ENST00000447944	p.S210Y	c.629	0.004271623	7.871	1
1153 PNPT1	ENST00000447944	p.E234D	c.702	0.010895998	0	1
1154 ADCYAP1R1	ENST00000409489	p.G56R	c.166	0.150100428	2.736	1
1154 ADCYAP1R1	ENST00000409489	p.D102N	c.304	0.150100428	0	1
1155 SPOP	ENST00000503676	p.Y87S	c.260	0.649846313	2.548	1
1155 SPOP	ENST00000503676	p.P94R	c.281	0.227428579	4.725	1
1155 SPOP	ENST00000503676	p.R121Q	c.362	1.118275762	8.985	2
1155 SPOP	ENST00000503676	p.W131G	c.391	2.234095683	0	1
1155 SPOP	ENST00000503676	p.W131R	c.391	2.234095683	0	1
1155 SPOP	ENST00000503676	p.W131C	c.393	2.234095683	0	1
1155 SPOP	ENST00000503676	p.F133C	c.398	0.233547001	5.55	1
1156 FLT3LG	ENST00000600429	p.A42T	c.124	0.002636793	0	1
1156 FLT3LG	ENST00000600429	p.R100C	c.298	0.002636793	8.567	1
1157 RXRG	ENST00000359842	p.R238G	c.712	0.008037709	6.959	1
1157 RXRG	ENST00000359842	p.W283Y	c.849_848	0.008037709	0	1
1158 AIM2	ENST00000368130	p.L294Q	c.881	1.068726009	0	2
1158 AIM2	ENST00000368130	p.T327I	c.980	0.137452019	3.863	1
1159 HSPBP1	ENST00000255631	p.Q346R	c.1037	0.092525831	0	1
1159 HSPBP1	ENST00000255631	p.V307M	c.919	0.092525831	3.434	1
1160 BHMT	ENST00000274353	p.T339S	c.1016	0.013026177	6.589	1
1160 BHMT	ENST00000274353	p.E162Q	c.484	0.264405091	0	1
1160 BHMT	ENST00000274353	p.L193F	c.579	0.256656157	1.977	1
1161 F7	ENST00000375581	p.S393L	c.1178	0.201381073	2.312	1
1161 F7	ENST00000375581	p.A251V	c.752	0.201381073	0	1
1162 TRIM69	ENST00000329464	p.Q200K	c.598	0.039075836	0	1
1162 TRIM69	ENST00000329464	p.E224K	c.670	0.004063673	7.943	1
1162 TRIM69	ENST00000329464	p.R226L	c.677	0.035012163	4.836	1
1163 L3MBTL2	ENST00000216237	p.L185M	c.553	0.026737345	5.225	1
1163 L3MBTL2	ENST00000216237	p.S189I	c.566	0.011312017	6.466	1
1163 L3MBTL2	ENST00000216237	p.Q237L	c.710	0.038049362	0	1
1164 HTR1B	ENST00000369947	p.L348Q	c.1043	0.026534258	0	1
1164 HTR1B	ENST00000369947	p.E193K	c.577	0.026534258	5.236	1
1165 CTSA	ENST00000372484	p.V417I	c.1249	0.020688889	0	1
1165 CTSA	ENST00000372484	p.H243Y	c.726_727	0.020688889	5.595	1
1166 KIF5B	ENST00000302418	p.P163L	c.488	0.126695561	0	1
1166 KIF5B	ENST00000302418	p.R278Q	c.833	0.007119541	7.134	1
1166 KIF5B	ENST00000302418	p.R284K	c.851	0.11957602	3.064	1
1167 MGAM	ENST00000475668	p.R1570C	c.4708	0.187836216	4.812	1
1167 MGAM	ENST00000475668	p.R1668C	c.5002	1.105094433	0	2
1167 MGAM	ENST00000475668	p.E2460A	c.7379	0.147068571	3.934	1
1167 MGAM	ENST00000475668	p.P2599S	c.7795	0.122446757	7.941	1
1168 RCOR3	ENST00000419091	p.A425T	c.1273	0.001195641	0	1
1168 RCOR3	ENST00000419091	p.P446S	c.1336	0.001195641	9.708	1
1169 MEN1	ENST00000394376	p.E363K	c.1087	1.010033717	0	1
1169 MEN1	ENST00000394376	p.E363G	c.1088	1.010033717	0	1
1169 MEN1	ENST00000394376	p.H179Y	c.535	0.020067435	6.639	1
1170 REG3A	ENST00000305165	p.H50N	c.148	2.062283766	0	2

1170	REG3A	ENST00000305165	p.H50Q	c.150	2.062283766	0	1
1170	REG3A	ENST00000305165	p.P72H	c.215	0.186851299	4.005	1
1171	DYRK1A	ENST00000398960	p.C286Y	c.857	0.069682811	7.127	1
1171	DYRK1A	ENST00000398960	p.R328L	c.983	1.007154169	0	1
1171	DYRK1A	ENST00000398960	p.R328Q	c.983	1.007154169	0	1
1172	MAPK7	ENST00000308406	p.L342F	c.1024	0.098720358	9.185	1
1172	MAPK7	ENST00000308406	p.L144V	c.430	0.103534875	3.385	1
1172	MAPK7	ENST00000308406	p.L163M	c.487	0.112050371	3.615	1
1172	MAPK7	ENST00000308406	p.M255R	c.764	0.179056676	0	1
1173	HNRNPA1	ENST00000340913	p.V60L	c.178	0.182757181	0	1
1173	HNRNPA1	ENST00000340913	p.L30P	c.89	0.182757181	2.452	1
1174	ME2	ENST00000321341	p.Q253H	c.759	0.173860246	0	1
1174	ME2	ENST00000321341	p.D278N	c.832	0.173860246	2.524	1
1175	LTF	ENST00000231751	p.R49C	c.145	0.013057296	0	1
1175	LTF	ENST00000231751	p.P303L	c.908	0.013057296	6.259	1
1176	ITGA4	ENST00000397033	p.A471V	c.1412	0.285706832	3.345	1
1176	ITGA4	ENST00000397033	p.S474R	c.1422	0.083698293	6.986	1
1176	ITGA4	ENST00000397033	p.F502L	c.1506	0.158198644	5.084	1
1176	ITGA4	ENST00000397033	p.M612I	c.1836	1.135784624	0	2
1177	NUP214	ENST00000451030	p.Q60H	c.180	0.121197494	0	1
1177	NUP214	ENST00000451030	p.L87F	c.261	0.116922497	3.173	1
1177	NUP214	ENST00000451030	p.D29E	c.87	0.016425599	6.598	1
1178	IFIT2	ENST00000371826	p.A157V	c.470	1.005810991	0	2
1178	IFIT2	ENST00000371826	p.S182I	c.545	0.017667158	7.427	1
1179	IL17F	ENST00000336123	p.M55I	c.165	1.009264957	0	2
1179	IL17F	ENST00000336123	p.Y93F	c.278	0.090093061	6.754	1
1180	TRIM33	ENST00000358465	p.K904Q	c.2710	0.011776054	0	1
1180	TRIM33	ENST00000358465	p.V939D	c.2816	0.011776054	6.408	1
1181	SUPV3L1	ENST00000359655	p.F100L	c.300	0.013175486	0	1
1181	SUPV3L1	ENST00000359655	p.L163V	c.487	0.013175486	6.246	1
1182	BMPR1B	ENST00000440890	p.L345S	c.1034	0.161479514	3.298	1
1182	BMPR1B	ENST00000440890	p.P356L	c.1067	0.024023799	6.473	1
1182	BMPR1B	ENST00000440890	p.L381M	c.1141	0.118554702	3.751	1
1182	BMPR1B	ENST00000440890	p.F422V	c.1264	0.03163061	9.669	1
1182	BMPR1B	ENST00000440890	p.M283T	c.848	0.188432011	0	1
1183	ACTB	ENST00000331789	p.Q354H	c.1062	0.002023404	0	1
1183	ACTB	ENST00000331789	p.M132T	c.395	0.002023404	8.949	1
1184	MYOM1	ENST00000356443	p.E1473K	c.4417	0.131066186	0	1
1184	MYOM1	ENST00000356443	p.E1520K	c.4558	0.100359337	3.365	1
1184	MYOM1	ENST00000356443	p.P1521A	c.4561	0.037308304	4.878	1
1185	TRAF2	ENST00000359662	p.L461I	c.1381	0.008662505	6.851	1
1185	TRAF2	ENST00000359662	p.A518T	c.1552	0.008662505	0	1
1186	EPHA3	ENST00000336596	p.A651T	c.1951	0.075080049	3.93	1
1186	EPHA3	ENST00000336596	p.E700K	c.2098	0.209993016	0	1
1186	EPHA3	ENST00000336596	p.K761N	c.2283	0.153858479	2.792	1
1187	PGR	ENST00000325455	p.S733Y	c.2198	0.057597345	4.248	1
1187	PGR	ENST00000325455	p.I751F	c.2251	0.099372947	3.405	1
1187	PGR	ENST00000325455	p.L826V	c.2476	0.147033471	0	1
1188	MARK1	ENST00000366917	p.S705G	c.2113	0.015657525	5.997	1

1188	MARK1	ENST00000366917	p.F741L	c.2223	0.012534081	6.318	1
1188	MARK1	ENST00000366917	p.R771C	c.2311	0.028191606	0	1
1189	IFNA2	ENST00000380206	p.E81K	c.241	0.196125883	0	1
1189	IFNA2	ENST00000380206	p.M82K	c.245	0.038107365	8.265	1
1189	IFNA2	ENST00000380206	p.E136D	c.408	0.058095381	4.297	1
1189	IFNA2	ENST00000380206	p.R143G	c.427	0.172119791	2.816	1
1190	IFIH1	ENST00000263642	p.K551I	c.1652	0.011063871	6.498	1
1190	IFIH1	ENST00000263642	p.M558I	c.1674	0.019119315	6.86	1
1190	IFIH1	ENST00000263642	p.A610V	c.1829	0.019672504	0	1
1191	MYL6B	ENST00000550443	p.V79A	c.236	0.002510169	8.638	1
1191	MYL6B	ENST00000550443	p.D81H	c.241	0.004055232	7.946	1
1191	MYL6B	ENST00000550443	p.S119L	c.356	0.0065654	0	1
1192	DHH	ENST00000266991	p.R122H	c.365	0.095490368	0	1
1192	DHH	ENST00000266991	p.T151M	c.452	0.095318608	3.516	1
1192	DHH	ENST00000266991	p.R154H	c.461	0.039089439	6.952	1
1193	LIPF	ENST00000394375	p.I68S	c.203	0.061814938	0	1
1193	LIPF	ENST00000394375	p.N137T	c.410	0.055591187	4.169	1
1193	LIPF	ENST00000394375	p.D159N	c.475	0.006223751	7.328	1
1194	SLAMF6	ENST00000368057	p.T54P	c.160	0.016473709	9.49	1
1194	SLAMF6	ENST00000368057	p.P80S	c.238	2.002373348	0	2
1194	SLAMF6	ENST00000368057	p.P80L	c.239	2.002373348	0	1
1194	SLAMF6	ENST00000368057	p.L119M	c.355	0.032716292	9.991	1
1195	MUS81	ENST00000308110	p.R363C	c.1087	0.094208432	3.408	1
1195	MUS81	ENST00000308110	p.G396V	c.1187	0.094208432	0	1
1196	AKR1B1	ENST00000285930	p.P219L	c.656	0.172779026	0	1
1196	AKR1B1	ENST00000285930	p.R297G	c.889	0.172779026	2.533	1
1197	SERPINA1	ENST00000448921	p.E387K	c.1159	0.117358968	3.091	1
1197	SERPINA1	ENST00000448921	p.H311N	c.931	0.117358968	0	1
1198	MR1	ENST00000367580	p.P203H	c.608	0.054598306	4.195	1
1198	MR1	ENST00000367580	p.H282Q	c.846	0.054598306	0	1
1199	LIFR	ENST00000263409	p.P139L	c.416	0.101992558	0	1
1199	LIFR	ENST00000263409	p.E173K	c.517	0.027127377	6.968	1
1199	LIFR	ENST00000263409	p.Y223H	c.667	0.017729354	7.591	1
1199	LIFR	ENST00000263409	p.S239I	c.716	0.099097887	3.493	1
1200	C6	ENST00000263413	p.M900I	c.2700	0.23116298	0	1
1200	C6	ENST00000263413	p.G901E	c.2702	0.13638934	6.829	1
1200	C6	ENST00000263413	p.K923Q	c.2767	0.202811539	3.162	1
1200	C6	ENST00000263413	p.E925K	c.2773	0.171872594	3.176	1
1201	CAND1	ENST00000545606	p.V528I	c.1582	0.007340021	7.09	1
1201	CAND1	ENST00000545606	p.L541I	c.1621	0.018879966	5.727	1
1201	CAND1	ENST00000545606	p.C592S	c.1774	0.026219988	0	1
1202	DHX9	ENST00000367549	p.V526G	c.1577	0.009080579	6.783	1
1202	DHX9	ENST00000367549	p.R528H	c.1583	0.079936599	3.645	1
1202	DHX9	ENST00000367549	p.F555L	c.1665	0.089017178	0	1
1203	NEURL4	ENST00000399464	p.A108T	c.322	0.651133813	2.335	1
1203	NEURL4	ENST00000399464	p.S131L	c.392	0.123383768	6.007	1
1203	NEURL4	ENST00000399464	p.R163H	c.488	1.248684838	0	2
1203	NEURL4	ENST00000399464	p.A191V	c.572	0.259996638	4.839	1
1204	CHI3L1	ENST00000255409	p.D38V	c.113	0.018135999	5.785	1

1204	CHI3L1	ENST00000255409	p.R286Q	c.857	0.018135999	0	1
1205	IL7R	ENST00000303115	p.E202K	c.604	1.187167926	0	2
1205	IL7R	ENST00000303115	p.S223R	c.669	0.367835782	2.461	1
1205	IL7R	ENST00000303115	p.R227K	c.680	0.012102092	7.494	1
1206	CYP2C8	ENST00000371270	p.R433Q	c.1298	0.153568015	8.552	1
1206	CYP2C8	ENST00000371270	p.S115R	c.343	0.184185934	5.798	1
1206	CYP2C8	ENST00000371270	p.D293N	c.877	1.020637662	0	2
1207	TTR	ENST00000237014	p.R41Q	c.122	0.163539262	3.447	1
1207	TTR	ENST00000237014	p.T69A	c.205	0.198571106	0	1
1207	TTR	ENST00000237014	p.D94Y	c.280	0.1787187	3.226	1
1208	PDGFRB	ENST00000261799	p.Q646H	c.1938	0.006551314	0	1
1208	PDGFRB	ENST00000261799	p.R708L	c.2123	0.006551314	7.254	1
1209	CR1	ENST00000367052	p.R1195S	c.3585	0.134013942	0	1
1209	CR1	ENST00000367052	p.S1217L	c.3650	0.028912765	5.26	1
1210	SNRPA	ENST00000243563	p.R83C	c.247	0.221902834	0	1
1210	SNRPA	ENST00000243563	p.E25D	c.75	0.221902834	2.172	1
1212	HEXA	ENST00000566304	p.D336N	c.1006	0.005831166	7.422	1
1212	HEXA	ENST00000566304	p.T297A	c.889	0.005831166	0	1
1213	ERBB4	ENST00000342788	p.Y46C	c.137	0.288361675	0	1
1213	ERBB4	ENST00000342788	p.R50H	c.149	0.21413717	5.948	1
1213	ERBB4	ENST00000342788	p.E69K	c.205	0.04778385	4.69	1
1213	ERBB4	ENST00000342788	p.D73V	c.218	0.282801928	2.553	1
1213	ERBB4	ENST00000342788	p.F76L	c.226	0.179080074	3.988	1
1214	NCBP1	ENST00000375147	p.H570R	c.1709	0.012107124	6.368	1
1214	NCBP1	ENST00000375147	p.M608I	c.1824	0.012107124	0	1
1215	FLT3	ENST00000380982	p.G617E	c.1850	1.148857106	6.748	2
1215	FLT3	ENST00000380982	p.S618L	c.1853	1.675974269	3.255	1
1215	FLT3	ENST00000380982	p.D835H	c.2503	15.12335553	0	2
1215	FLT3	ENST00000380982	p.D835Y	c.2503	15.12335553	0	11
1215	FLT3	ENST00000380982	p.D835E	c.2505	15.12335553	0	3
1216	PTGIS	ENST00000244043	p.A353D	c.1058	0.128577778	0	1
1216	PTGIS	ENST00000244043	p.P433S	c.1297	0.102162482	3.542	1
1216	PTGIS	ENST00000244043	p.M486T	c.1457	0.081085417	4.827	1
1216	PTGIS	ENST00000244043	p.N287D	c.859	0.03818906	7.06	1
1217	ITGA4	ENST00000397033	p.K116N	c.348	0.076331996	0	1
1217	ITGA4	ENST00000397033	p.Q185P	c.554	0.019953852	7.003	1
1217	ITGA4	ENST00000397033	p.D186N	c.556	0.068535724	3.867	1
1218	DUSP3	ENST00000226004	p.D92G	c.275	0.110261421	0	1
1218	DUSP3	ENST00000226004	p.R130C	c.388	0.110261421	3.181	1
1219	CTNNB1	ENST00000349496	p.A215T	c.643	0.009420374	6.73	1
1219	CTNNB1	ENST00000349496	p.T257I	c.770	0.018538796	0	1
1219	CTNNB1	ENST00000349496	p.K292E	c.874	0.015697039	6.777	1
1220	MTAP	ENST00000580900	p.C136R	c.406	0.008602669	6.861	1
1220	MTAP	ENST00000580900	p.C145G	c.433	0.023051429	5.439	1
1220	MTAP	ENST00000580900	p.K206N	c.618	0.031654098	0	1
1221	ETF1	ENST00000360541	p.T347I	c.1040	0.010068552	0	1
1221	ETF1	ENST00000360541	p.V305I	c.913	0.010068552	6.634	1
1222	BAI3	ENST00000370598	p.A712S	c.2134	0.004842608	7.69	1
1222	BAI3	ENST00000370598	p.S744R	c.2230	0.160128643	0	1

1222 BAI3	ENST00000370598	p.S801L	c.2402	0.155286035	2.687	1
1223 SOD2	ENST00000538183	p.R123C	c.367	1.02335702	0	1
1223 SOD2	ENST00000538183	p.R123H	c.368	1.02335702	0	1
1223 SOD2	ENST00000538183	p.R156Q	c.467	0.046714039	5.42	1
1224 LGALS8	ENST00000526589	p.G120E	c.359	0.01924997	0	1
1224 LGALS8	ENST00000526589	p.N325H	c.973	0.01924997	5.699	1
1225 IFNG	ENST00000229135	p.R65I	c.194	1.038154579	0	1
1225 IFNG	ENST00000229135	p.R65T	c.194	1.038154579	0	1
1225 IFNG	ENST00000229135	p.S144L	c.431	0.092597685	4.712	1
1226 IL4R	ENST00000543915	p.N167I	c.500	0.291587342	2.778	1
1226 IL4R	ENST00000543915	p.S196F	c.587	1.145793671	0	2
1227 FARP1	ENST00000376586	p.E573Q	c.1717	0.063901783	3.968	1
1227 FARP1	ENST00000376586	p.R660W	c.1978	0.063901783	0	1
1228 HCK	ENST00000375852	p.C482F	c.1445	0.035648866	4.81	1
1228 HCK	ENST00000375852	p.R213Q	c.638	0.035648866	0	1
1229 CA3	ENST00000285381	p.L95F	c.283	0.38440471	4.4	1
1229 CA3	ENST00000285381	p.G98C	c.292	0.424837602	3.252	1
1229 CA3	ENST00000285381	p.A116V	c.347	0.164156543	7.321	1
1229 CA3	ENST00000285381	p.F159L	c.475	0.147736216	8.616	1
1229 CA3	ENST00000285381	p.R226W	c.676	3.161135341	0	1
1229 CA3	ENST00000285381	p.R226L	c.677	3.161135341	0	2
1229 CA3	ENST00000285381	p.R226Q	c.677	3.161135341	0	1
1230 PCNA	ENST00000379143	p.D86Y	c.256	0.020919613	6.579	1
1230 PCNA	ENST00000379143	p.E109K	c.325	1.065856667	0	1
1230 PCNA	ENST00000379143	p.E109D	c.327	1.065856667	0	1
1230 PCNA	ENST00000379143	p.V167L	c.499	0.042542103	6.636	1
1230 PCNA	ENST00000379143	p.A194V	c.581	0.090684513	4.463	1
1231 LIG1	ENST00000263274	p.Q636K	c.1906	0.125782228	2.991	1
1231 LIG1	ENST00000263274	p.S850F	c.2550_2549	0.125782228	0	1
1232 RUVBL1	ENST00000322623	p.P351H	c.1052	0.004063673	0	1
1232 RUVBL1	ENST00000322623	p.E310K	c.928	0.004063673	7.943	1
1233 CPN1	ENST00000370418	p.A261V	c.782	0.084318908	3.568	1
1233 CPN1	ENST00000370418	p.A330S	c.988	0.084318908	0	1
1234 WARS	ENST00000355338	p.L158V	c.472	0.01268265	0	1
1234 WARS	ENST00000355338	p.P287S	c.859	0.01268265	6.301	1
1235 FBXO4	ENST00000281623	p.W99R	c.295	0.091602902	0	1
1235 FBXO4	ENST00000281623	p.M140L	c.418	0.089714203	3.669	1
1235 FBXO4	ENST00000281623	p.A141T	c.421	0.014005951	6.267	1
1236 TAT	ENST00000355962	p.L343V	c.1027	0.019545767	6.677	1
1236 TAT	ENST00000355962	p.E248D	c.744	0.011965297	7.385	1
1236 TAT	ENST00000355962	p.R281C	c.841	1.015755532	0	1
1236 TAT	ENST00000355962	p.R281L	c.842	1.015755532	0	1
1237 MAOA	ENST00000338702	p.T130I	c.389	0.091240368	3.809	1
1237 MAOA	ENST00000338702	p.M155T	c.464	0.072893155	6.891	1
1237 MAOA	ENST00000338702	p.T156N	c.467	0.358595338	0	1
1237 MAOA	ENST00000338702	p.H187Q	c.561	0.17660326	2.78	1
1237 MAOA	ENST00000338702	p.V189M	c.565	0.225374615	2.908	1
1238 CR2	ENST00000367057	p.V349I	c.1045	0.011862573	0	1
1238 CR2	ENST00000367057	p.A395T	c.1183	0.007139308	7.13	1

1238 CR2	ENST00000367057	p.Q396R	c.1187	0.004723264	7.726	1
1240 AKR7A3	ENST00000361640	p.P199S	c.595	0.097940498	3.462	1
1240 AKR7A3	ENST00000361640	p.A201T	c.601	0.017977261	5.923	1
1240 AKR7A3	ENST00000361640	p.T267A	c.799	0.111472711	0	1
1240 AKR7A3	ENST00000361640	p.A302P	c.904	0.003918349	8.424	1
1240 AKR7A3	ENST00000361640	p.A318V	c.954_953	0.059888615	9.552	1
1241 RPL22	ENST00000234875	p.F39Y	c.116	0.027513999	6.461	1
1241 RPL22	ENST00000234875	p.F42S	c.125	0.187159557	3.42	1
1241 RPL22	ENST00000234875	p.I47M	c.141	0.098473608	3.506	1
1241 RPL22	ENST00000234875	p.L56P	c.167	0.003767962	8.052	1
1241 RPL22	ENST00000234875	p.L86P	c.257	0.204458589	0	1
1241 RPL22	ENST00000234875	p.K88N	c.264	0.020348395	9.996	1
1241 RPL22	ENST00000234875	p.K89T	c.266	0.086300746	7.177	1
1242 CNTN1	ENST00000551295	p.R171C	c.511	1.034868336	0	2
1242 CNTN1	ENST00000551295	p.G194V	c.581	0.068607578	5.525	1
1242 CNTN1	ENST00000551295	p.K220R	c.659	0.17368476	7.713	1
1242 CNTN1	ENST00000551295	p.V222M	c.664	0.092527689	6.898	1
1243 C19orf40	ENST00000588258	p.L59I	c.175	0.028874735	9.345	1
1243 C19orf40	ENST00000588258	p.E63K	c.187	0.323327628	0	1
1243 C19orf40	ENST00000588258	p.V91I	c.271	0.09852379	4.152	1
1243 C19orf40	ENST00000588258	p.E92Q	c.274	0.280476442	1.913	1
1244 CYP2C9	ENST00000260682	p.E122K	c.364	0.088118506	6.915	1
1244 CYP2C9	ENST00000260682	p.P279S	c.835	1.008286623	0	1
1244 CYP2C9	ENST00000260682	p.P279L	c.836	1.008286623	0	1
1245 CD180	ENST00000256447	p.E367D	c.1101	0.005055256	7.628	1
1245 CD180	ENST00000256447	p.S396F	c.1187	0.076451897	0	1
1245 CD180	ENST00000256447	p.Q421H	c.1263	0.07139664	3.808	1
1246 THBS1	ENST00000260356	p.R1091C	c.3271	0.136786713	2.87	1
1246 THBS1	ENST00000260356	p.D1140N	c.3418	0.136786713	0	1
1247 PFKM	ENST00000340802	p.R169Q	c.506	0.02245219	5.477	1
1247 PFKM	ENST00000340802	p.L210I	c.628	0.02245219	0	1
1248 NCKAP1	ENST00000360982	p.K373R	c.1118	0.054674048	0	1
1248 NCKAP1	ENST00000360982	p.A249T	c.745	0.054674048	4.193	1
1249 TP73	ENST00000378295	p.P116T	c.346	0.011500019	6.578	1
1249 TP73	ENST00000378295	p.T188I	c.563	0.109153795	0	1
1249 TP73	ENST00000378295	p.E218K	c.652	0.099719696	3.341	1
1250 CAPN2	ENST00000295006	p.E435D	c.1305	0.039172907	0	1
1250 CAPN2	ENST00000295006	p.P478L	c.1433	0.039172907	4.674	1
1251 FABP1	ENST00000295834	p.G76E	c.227	0.049910417	0	1
1251 FABP1	ENST00000295834	p.I98T	c.293	0.027223569	5.199	1
1251 FABP1	ENST00000295834	p.L24M	c.70	0.022686848	5.462	1
1252 BCHE	ENST00000264381	p.Y360H	c.1078	0.145841363	6.981	1
1252 BCHE	ENST00000264381	p.P457L	c.1370	0.330471774	2.506	1
1252 BCHE	ENST00000264381	p.W458L	c.1373	0.383321896	3.343	1
1252 BCHE	ENST00000264381	p.Y468C	c.1403	0.330703815	3.046	1
1252 BCHE	ENST00000264381	p.I470S	c.1409	0.01874901	6.218	1
1252 BCHE	ENST00000264381	p.D482E	c.1446	0.049658548	8.945	1
1252 BCHE	ENST00000264381	p.G106V	c.317	0.459786882	5.752	1
1252 BCHE	ENST00000264381	p.E108Q	c.322	0.036667898	9.457	1

1252 BCHE	ENST00000264381	p.M109I	c.327	0.481627662	0	1
1252 BCHE	ENST00000264381	p.H154Y	c.460	0.124700827	4.553	1
1253 PLAT	ENST00000220809	p.L341M	c.1021	0.080960535	3.727	1
1253 PLAT	ENST00000220809	p.K413E	c.1237	0.149301191	0	1
1253 PLAT	ENST00000220809	p.E453A	c.1358	0.098563905	9.168	1
1253 PLAT	ENST00000220809	p.H322Y	c.964	0.103368204	3.795	1
1254 CTNNB1	ENST00000349496	p.R587Q	c.1760	0.158707464	6.554	1
1254 CTNNB1	ENST00000349496	p.C619Y	c.1856	1.012050775	0	2
1254 CTNNB1	ENST00000349496	p.Q623E	c.1867	0.173760419	9.472	1
1255 POT1	ENST00000357628	p.C59S	c.175	0.110414381	3.179	1
1255 POT1	ENST00000357628	p.G95C	c.283	0.110414381	0	1
1256 TAT	ENST00000355962	p.E92D	c.276	0.088021514	3.506	1
1256 TAT	ENST00000355962	p.A96T	c.286	0.009752582	6.68	1
1256 TAT	ENST00000355962	p.R333H	c.998	0.097774097	0	1
1257 PRLR	ENST00000382002	p.E169K	c.505	0.195262549	2.582	1
1257 PRLR	ENST00000382002	p.I170T	c.509	0.289453463	3.392	1
1257 PRLR	ENST00000382002	p.W180G	c.538	0.015113888	6.384	1
1257 PRLR	ENST00000382002	p.F191C	c.572	0.204363753	5.889	1
1257 PRLR	ENST00000382002	p.W218G	c.652	0.291116539	0	1
1258 POLI	ENST00000579534	p.R382L	c.1145	0.049755506	0	1
1258 POLI	ENST00000579534	p.L275F	c.823	0.049755506	4.329	1
1259 PCK1	ENST00000319441	p.A336T	c.1006	0.168882457	0	1
1259 PCK1	ENST00000319441	p.F357S	c.1070	0.08581583	5.228	1
1259 PCK1	ENST00000319441	p.S404L	c.1211	0.152082525	2.814	1
1260 IL20	ENST00000367098	p.R43Q	c.128	2.130325653	0	3
1260 IL20	ENST00000367098	p.L168R	c.503	0.029183602	6.81	1
1260 IL20	ENST00000367098	p.E173D	c.519	0.366831574	3.042	1
1262 PTGR1	ENST00000309195	p.F43L	c.127	0.044687031	4.484	1
1262 PTGR1	ENST00000309195	p.Q66H	c.198	0.055851048	0	1
1262 PTGR1	ENST00000309195	p.G120W	c.358	0.033998801	6.485	1
1263 TLR4	ENST00000355622	p.T413S	c.1238	0.149721491	6.972	1
1263 TLR4	ENST00000355622	p.S415I	c.1244	0.222694562	7.259	1
1263 TLR4	ENST00000355622	p.E439K	c.1315	1.014494255	0	1
1263 TLR4	ENST00000355622	p.E439A	c.1316	1.014494255	0	1
1264 PTPRM	ENST00000400060	p.R394W	c.1180	0.021687386	0	1
1264 PTPRM	ENST00000400060	p.D478Y	c.1432	0.021687386	5.527	1
1265 CYTH2	ENST00000427476	p.V204I	c.610	0.051744496	4.404	1
1265 CYTH2	ENST00000427476	p.R205W	c.612_613	0.060992796	4.155	1
1265 CYTH2	ENST00000427476	p.G209S	c.625	0.043402273	4.668	1
1265 CYTH2	ENST00000427476	p.R239Q	c.716	0.142704433	0	1
1266 ARFGEF1	ENST00000262215	p.L817I	c.2449	0.019209982	5.702	1
1266 ARFGEF1	ENST00000262215	p.D864Y	c.2590	0.019209982	0	1
1267 DDC	ENST00000444124	p.M93V	c.277	0.01307541	6.257	1
1267 DDC	ENST00000444124	p.E12D	c.36	0.01307541	0	1
1269 AGT	ENST00000366667	p.A150S	c.448	0.022319421	7.981	1
1269 AGT	ENST00000366667	p.A177E	c.530	2.007540082	0	1
1269 AGT	ENST00000366667	p.A177V	c.530	2.007540082	0	2
1269 AGT	ENST00000366667	p.F223L	c.667	0.027679505	8.125	1
1270 GBA	ENST00000327247	p.R41C	c.121	0.008850655	6.82	1

1270	GBA	ENST00000327247	p.F456Y	c.1367	0.013193764	6.244	1
1270	GBA	ENST00000327247	p.K145R	c.434	0.053164724	0	1
1270	GBA	ENST00000327247	p.Q265H	c.795	0.031120305	5.006	1
1271	HEXB	ENST00000261416	p.477in_frame_1nsK	c.1423_1424	0.15006074	2.79	1
1271	HEXB	ENST00000261416	p.Y78D	c.232	0.043339487	4.723	1
1271	HEXB	ENST00000261416	p.H102Y	c.304	0.182450794	0	1
1272	MSH2	ENST00000233146	p.R383L	c.1148	0.097253817	9.505	1
1272	MSH2	ENST00000233146	p.R406Q	c.1217	0.028459599	7.239	1
1272	MSH2	ENST00000233146	p.G410S	c.1228	0.097407287	5.779	1
1272	MSH2	ENST00000233146	p.N412H	c.1234	0.116793944	3.124	1
1272	MSH2	ENST00000233146	p.Q451E	c.1351	0.140912641	0	1
1273	SERPINC1	ENST00000367698	p.G360S	c.1078	0.168687434	0	1
1273	SERPINC1	ENST00000367698	p.H401N	c.1201	0.164451942	2.76	1
1273	SERPINC1	ENST00000367698	p.A118T	c.352	0.009034435	9.749	1
1273	SERPINC1	ENST00000367698	p.D232N	c.694	0.028856775	5.651	1
1274	PTK2B	ENST00000544172	p.G905S	c.2713	0.039118639	4.676	1
1274	PTK2B	ENST00000544172	p.M957I	c.2871	0.039118639	0	1
1275	NAT2	ENST00000286479	p.R9I	c.26	2.017840164	0	2
1275	NAT2	ENST00000286479	p.R9K	c.26	2.017840164	0	1
1275	NAT2	ENST00000286479	p.L225S	c.674	0.102531316	6.892	1
1275	NAT2	ENST00000286479	p.R33Q	c.98	0.132871366	6.73	1
1276	TUBGCP4	ENST00000260383	p.Q370K	c.1108	0.017384852	7.933	1
1276	TUBGCP4	ENST00000260383	p.G449C	c.1345	1.11096721	0	1
1276	TUBGCP4	ENST00000260383	p.G449R	c.1345	1.11096721	0	1
1276	TUBGCP4	ENST00000260383	p.R486C	c.1456	0.217392679	3.226	1
1277	ADAMTS4	ENST00000367996	p.Q354K	c.1060	0.062730005	0	1
1277	ADAMTS4	ENST00000367996	p.R447C	c.1339	0.003170662	8.301	1
1277	ADAMTS4	ENST00000367996	p.H486Q	c.1458	0.012383907	6.719	1
1277	ADAMTS4	ENST00000367996	p.P488S	c.1462	0.050066867	4.32	1
1278	RNF41	ENST00000552656	p.H251Q	c.753	0.013936383	0	1
1278	RNF41	ENST00000552656	p.L306R	c.917	0.013936383	6.165	1
1279	CHN1	ENST00000409900	p.Y70N	c.208	0.050625217	0	1
1279	CHN1	ENST00000409900	p.H114Q	c.342	0.050625217	4.304	1
1280	AHCY	ENST00000217426	p.K426N	c.1278	0.009252122	6.756	1
1280	AHCY	ENST00000217426	p.P246H	c.737	0.009252122	0	1
1281	KDM1B	ENST00000388870	p.W422L	c.1265	0.010110513	6.628	1
1281	KDM1B	ENST00000388870	p.R757W	c.2269	0.010110513	0	1
1282	DPYSL5	ENST00000288699	p.V484A	c.1451	0.00983404	0	1
1282	DPYSL5	ENST00000288699	p.E217K	c.649	0.00983404	6.668	1
1283	SET	ENST00000372692	p.Y73C	c.218	0.00875911	0	1
1283	SET	ENST00000372692	p.A31V	c.92	0.00875911	6.835	1
1284	ENPEP	ENST00000265162	p.V97I	c.289	1.014170161	0	2
1284	ENPEP	ENST00000265162	p.A127T	c.379	0.028340323	6.141	1
1285	PTK2	ENST00000519419	p.S91N	c.272	0.008807816	6.827	1
1285	PTK2	ENST00000519419	p.R249Q	c.746	0.008807816	0	1
1286	ZC3H12A	ENST00000373087	p.D141H	c.421	0.078509841	0	1
1286	ZC3H12A	ENST00000373087	p.D226N	c.676	0.06345932	4.001	1
1286	ZC3H12A	ENST00000373087	p.N243K	c.729	0.017055774	5.961	1
1287	DUSP26	ENST00000256261	p.E64K	c.190	0.029122291	9.713	1

1287 DUSP26	ENST00000256261	p.L69F	c.205	0.122414019	0	1
1287 DUSP26	ENST00000256261	p.K147N	c.441	0.073941412	4.551	1
1287 DUSP26	ENST00000256261	p.L167F	c.499	0.081914783	3.67	1
1288 VAV3	ENST00000527011	p.R38P	c.113	0.308142502	0	1
1288 VAV3	ENST00000527011	p.I75R	c.224	0.195706284	2.537	1
1288 VAV3	ENST00000527011	p.V102F	c.304	0.159247497	2.88	1
1289 SYK	ENST00000375754	p.K527N	c.1581	0.054522669	5.197	1
1289 SYK	ENST00000375754	p.G578E	c.1733	1.027261335	0	2
1290 TPBG	ENST00000369750	p.V297I	c.889	0.035648866	0	1
1290 TPBG	ENST00000369750	p.P326L	c.977	0.035648866	4.81	1
1291 IL1R2	ENST00000332549	p.D90N	c.268	1.058801632	5.088	1
1291 IL1R2	ENST00000332549	p.D90Y	c.268	1.058801632	5.088	1
1291 IL1R2	ENST00000332549	p.A92S	c.274	0.010093615	8.179	1
1291 IL1R2	ENST00000332549	p.R160C	c.478	1.062252081	0	1
1291 IL1R2	ENST00000332549	p.R160H	c.479	1.062252081	0	1
1292 KLK5	ENST00000391809	p.L123M	c.367	1.175248879	0	1
1292 KLK5	ENST00000391809	p.L123Q	c.368	1.175248879	0	1
1292 KLK5	ENST00000391809	p.L204I	c.610	0.219898393	3.234	1
1292 KLK5	ENST00000391809	p.Q205H	c.615	0.145259071	3.858	1
1293 SERPINA12	ENST00000556881	p.A45V	c.134	0.007457977	7.067	1
1293 SERPINA12	ENST00000556881	p.L112I	c.334	0.007457977	0	1
1294 CFH	ENST00000367429	p.G89A	c.266	0.05916357	5.172	1
1294 CFH	ENST00000367429	p.T91N	c.272	0.298491757	2.911	1
1294 CFH	ENST00000367429	p.N115Y	c.343	0.036579337	8.024	1
1294 CFH	ENST00000367429	p.P139S	c.415	1.164533743	0	1
1294 CFH	ENST00000367429	p.P139H	c.416	1.164533743	0	1
1295 CNOT6L	ENST00000264903	p.V356L	c.1066	0.188772955	7.244	1
1295 CNOT6L	ENST00000264903	p.A357T	c.1069	1.066884268	0	2
1295 CNOT6L	ENST00000264903	p.A329T	c.985	0.237237659	4.052	1
1296 RECQL	ENST00000421138	p.E108D	c.324	0.228763145	3.874	1
1296 RECQL	ENST00000421138	p.R215G	c.643	0.207266571	4.113	1
1296 RECQL	ENST00000421138	p.A248T	c.742	2.1273267	0	3
1296 RECQL	ENST00000421138	p.I251N	c.752	0.039094185	9.553	1
1297 ADAR	ENST00000292205	p.I186F	c.556	0.033446522	4.902	1
1297 ADAR	ENST00000292205	p.N216S	c.647	0.033446522	0	1
1298 OXCT1	ENST00000196371	p.D428Y	c.1282	0.088862735	3.745	1
1298 OXCT1	ENST00000196371	p.G62V	c.185	0.042055771	8.385	1
1298 OXCT1	ENST00000196371	p.Q138L	c.413	0.154148891	0	1
1298 OXCT1	ENST00000196371	p.F230L	c.690	0.121349692	3.707	1
1299 CFH	ENST00000367429	p.G350E	c.1049	0.261011439	0	1
1299 CFH	ENST00000367429	p.H373Y	c.1117	0.133019753	3.347	1
1299 CFH	ENST00000367429	p.C374G	c.1120	0.176683862	2.636	1
1299 CFH	ENST00000367429	p.G397R	c.1189	0.020793006	9.07	1
1300 P2RY1	ENST00000305097	p.H132R	c.395	0.044229128	5.1	1
1300 P2RY1	ENST00000305097	p.S138N	c.413	0.023486898	5.412	1
1300 P2RY1	ENST00000305097	p.V179A	c.536	0.052644179	0	1
1301 TRIM63	ENST00000374272	p.C134S	c.401	0.072795849	0	1
1301 TRIM63	ENST00000374272	p.A157S	c.469	0.072795849	3.78	1
1302 FGFR2	ENST00000457416	p.G691R	c.2071	0.023864336	5.389	1

1302	FGFR2	ENST00000457416	p.E696K	c.2086	0.015292838	6.031	1
1302	FGFR2	ENST00000457416	p.M723I	c.2169	0.039157174	0	1
1303	CR2	ENST00000367057	p.D69Y	c.205	0.043737058	4.515	1
1303	CR2	ENST00000367057	p.D72N	c.214	0.009827226	6.669	1
1303	CR2	ENST00000367057	p.P80S	c.238	0.039123738	6.329	1
1303	CR2	ENST00000367057	p.P27L	c.80	0.066003161	0	1
1304	RASEF	ENST00000376447	p.L620M	c.1858	0.022343515	0	1
1304	RASEF	ENST00000376447	p.G653E	c.1958	0.022343515	5.484	1
1305	TBC1D22A	ENST00000337137	p.H406Y	c.1216	0.127411312	7.298	1
1305	TBC1D22A	ENST00000337137	p.L407V	c.1219	0.043521143	6.717	1
1305	TBC1D22A	ENST00000337137	p.E411K	c.1231	0.341947765	3.177	1
1305	TBC1D22A	ENST00000337137	p.F474C	c.1421_1422	0.161385501	6.243	1
1305	TBC1D22A	ENST00000337137	p.R286H	c.857	1.139630635	0	2
1306	HSPB11	ENST00000371378	p.L8Q	c.23	0.177144675	3.497	1
1307	FLNB	ENST00000490882	p.D1126N	c.3376	0.256967544	1.991	1
1307	FLNB	ENST00000490882	p.G1146E	c.3437	0.026881037	5.541	1
1307	FLNB	ENST00000490882	p.E1169K	c.3505	0.273042404	0	1
1308	CBL	ENST00000264033	p.E143D	c.429	0.0206992	5.812	1
1308	CBL	ENST00000264033	p.R149Q	c.446	0.165792854	2.618	1
1308	CBL	ENST00000264033	p.E276K	c.826	0.180693134	0	1
1309	CLEC4C	ENST00000542353	p.R136I	c.407	1.126152656	0	1
1309	CLEC4C	ENST00000542353	p.R136K	c.407	1.126152656	0	1
1309	CLEC4C	ENST00000542353	p.S138Y	c.413	1.063997641	7.657	2
1309	CLEC4C	ENST00000542353	p.R186C	c.556	0.041574797	6.08	1
1309	CLEC4C	ENST00000542353	p.FR185in_frame_del	c.559_554	0.302088195	3.301	1
1310	UPF2	ENST00000357604	p.H366Y	c.1096	0.113764585	9.126	1
1310	UPF2	ENST00000357604	p.R369G	c.1105	1.018033211	0	2
1310	UPF2	ENST00000357604	p.H302N	c.904_903	0.142671877	5.944	1
1311	APAF1	ENST0000051964	p.L639F	c.1917	0.078726874	0	1
1311	APAF1	ENST0000051964	p.I672V	c.2014	0.078726874	3.667	1
1312	DCUN1D3	ENST00000563934	p.L128M	c.382	0.007149212	7.128	1
1312	DCUN1D3	ENST00000563934	p.Y183H	c.547	0.111755735	0	1
1312	DCUN1D3	ENST00000563934	p.T242S	c.724	0.028432301	5.245	1
1312	DCUN1D3	ENST00000563934	p.L247F	c.739	0.092610553	3.676	1
1313	RPL15	ENST00000415719	p.R44Q	c.131	0.012456384	6.741	1
1313	RPL15	ENST00000415719	p.R49G	c.145	0.017581516	5.976	1
1313	RPL15	ENST00000415719	p.Q8R	c.23	0.025235924	0	1
1314	BIN2	ENST00000267012	p.S78L	c.233	0.010152649	6.622	1
1314	BIN2	ENST00000267012	p.V103I	c.307	0.010152649	0	1
1316	ALB	ENST00000295897	p.D348N	c.1042	0.027041763	6.178	1
1316	ALB	ENST00000295897	p.Y54F	c.161	0.016470178	5.924	1
1316	ALB	ENST00000295897	p.E124D	c.372	0.041453304	0	1
1316	ALB	ENST00000295897	p.Q228K	c.682	0.011171758	6.484	1
1317	NSD1	ENST00000439151	p.R1984L	c.5951	0.140048652	2.836	1
1317	NSD1	ENST00000439151	p.D2008N	c.6022	0.140048652	0	1
1318	ENPEP	ENST00000265162	p.G476V	c.1427	0.025626401	8.662	1
1318	ENPEP	ENST00000265162	p.R855Q	c.2564	1.121796383	0	2
1318	ENPEP	ENST00000265162	p.R891Q	c.2672	0.259344143	3.067	1
1319	PRMT6	ENST00000370078	p.R351P	c.1052	0.050450067	0	1

1319 PRMT6	ENST00000370078	p.L162M	c.484	0.050450067	4.309	1
1320 A2M	ENST00000318602	p.R147C	c.439	2.019359185	0	1
1320 A2M	ENST00000318602	p.R147H	c.440	2.019359185	0	2
1320 A2M	ENST00000318602	p.S191Y	c.572	0.146195465	7.31	1
1320 A2M	ENST00000318602	p.V207L	c.619	0.050436958	6.259	1
1321 GDNF	ENST00000427982	p.L137V	c.409	0.110457884	0	1
1321 GDNF	ENST00000427982	p.G164S	c.490	0.005197379	7.588	1
1321 GDNF	ENST00000427982	p.S221Y	c.662	0.013426821	6.347	1
1321 GDNF	ENST00000427982	p.A222T	c.664	0.094118036	3.427	1
1322 C8A	ENST00000361249	p.E352K	c.1054	0.164104607	8.794	1
1322 C8A	ENST00000361249	p.S421Y	c.1262	0.201219415	5.893	1
1322 C8A	ENST00000361249	p.E278K	c.832	2.019080814	0	3
1323 LRRC4	ENST00000249363	p.R96C	c.286	1.095193046	0	1
1323 LRRC4	ENST00000249363	p.R96H	c.287	1.095193046	0	1
1323 LRRC4	ENST00000249363	p.G121S	c.361	0.190386092	3.393	1
1324 CHID1	ENST00000323541	p.Y114C	c.341	0.047728672	4.389	1
1324 CHID1	ENST00000323541	p.T154M	c.461	0.01544607	6.967	1
1324 CHID1	ENST00000323541	p.R179W	c.535	0.055721933	0	1
1325 GNE	ENST00000539815	p.Y590D	c.1768	0.045358916	4.685	1
1325 GNE	ENST00000539815	p.A591T	c.1771	0.173261448	2.584	1
1325 GNE	ENST00000539815	p.Y675C	c.2024	0.20565326	0	1
1326 ALDH5A1	ENST00000348925	p.A198P	c.592	1.294445933	0	1
1326 ALDH5A1	ENST00000348925	p.A198S	c.592	1.294445933	0	1
1326 ALDH5A1	ENST00000348925	p.T224I	c.671	0.307440431	2.807	1
1326 ALDH5A1	ENST00000348925	p.V226L	c.676	0.267484529	3.021	1
1326 ALDH5A1	ENST00000348925	p.S294F	c.881	0.064266138	5.14	1
1327 VAT1L	ENST00000302536	p.I92T	c.275	0.00541809	7.528	1
1327 VAT1L	ENST00000302536	p.D93G	c.278	0.033261568	4.91	1
1327 VAT1L	ENST00000302536	p.G326D	c.977	0.038679658	0	1
1328 MNDA	ENST00000368141	p.L65R	c.194	0.387474288	0	1
1328 MNDA	ENST00000368141	p.L9I	c.25	0.256183835	2.189	1
1328 MNDA	ENST00000368141	p.G13E	c.38	0.205051349	2.572	1
1329 PON1	ENST00000542556	p.H348Y	c.1042	0.052775055	0	1
1329 PON1	ENST00000542556	p.I226F	c.676	0.052775055	4.244	1
1330 CRYGC	ENST00000282141	p.E120K	c.358	0.055552668	4.17	1
1330 CRYGC	ENST00000282141	p.R153W	c.457	0.055552668	0	1
1331 CFB	ENST00000556679	p.P572R	c.1715	0.017738158	0	1
1331 CFB	ENST00000556679	p.K593N	c.1779	0.017738158	5.817	1
1332 UGT2B7	ENST00000305231	p.P344L	c.1031	0.013965393	0	1
1332 UGT2B7	ENST00000305231	p.E318K	c.952	0.013965393	6.162	1
1333 IL6R	ENST00000368485	p.S141F	c.422_423	0.005104552	7.614	1
1333 IL6R	ENST00000368485	p.G199W	c.595	0.005104552	0	1
1334 ADH7	ENST00000476959	p.V57G	c.170	0.131430818	4.124	1
1334 ADH7	ENST00000476959	p.R58C	c.172	1.14267347	3.85	2
1334 ADH7	ENST00000476959	p.R149K	c.446	1.196048677	0	2
1335 FCN2	ENST00000291744	p.G139R	c.415	1.010005936	0	2
1335 FCN2	ENST00000291744	p.R192L	c.575	0.026677702	6.643	1
1336 SETD2	ENST00000409792	p.C1516F	c.4547	0.254478412	7.291	1
1336 SETD2	ENST00000409792	p.R1523C	c.4567	1.166719732	3.769	1

1336	SETD2	ENST00000409792	p.R1523H	c.4568	1.166719732	3.769	1
1336	SETD2	ENST00000409792	p.E1528D	c.4584	0.176901906	3.728	1
1336	SETD2	ENST00000409792	p.N1541S	c.4622	1.290947196	3.341	2
1336	SETD2	ENST00000409792	p.W1640R	c.4918	1.425932463	0	1
1336	SETD2	ENST00000409792	p.W1640C	c.4920	1.425932463	0	1
1337	FGF9	ENST00000382353	p.G103S	c.307	0.091188772	3.455	1
1337	FGF9	ENST00000382353	p.R137I	c.410	0.091188772	0	1
1338	IL2RG	ENST00000374202	p.Y89F	c.266	0.022374512	0	1
1338	IL2RG	ENST00000374202	p.Q144H	c.432	0.022374512	5.482	1
1339	SNX33	ENST00000308527	p.K382N	c.1146	0.030955434	0	1
1339	SNX33	ENST00000308527	p.M430I	c.1290	0.006555857	7.253	1
1339	SNX33	ENST00000308527	p.K490N	c.1470	0.024399578	5.357	1
1340	RPL3	ENST00000216146	p.A51V	c.152	0.051907477	0	1
1340	RPL3	ENST00000216146	p.P172T	c.514	0.006099714	7.692	1
1340	RPL3	ENST00000216146	p.V321D	c.962	0.048335391	4.409	1
1341	CAPN3	ENST00000397163	p.A726V	c.2177	0.006429846	7.281	1
1341	CAPN3	ENST00000397163	p.D753N	c.2257	0.006429846	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insSPEDNEYFYVD	c.1781_1780	2.005403088	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insGTGSSDNEYFYVDF	c.1783_1782	2.005403088	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insSDNEYFYVDF	c.1783_1782	2.005403088	0	1
1342	FLT3	ENST00000380982	p.S127F	c.380	0.016209265	7.532	1
1344	GRM5	ENST00000305447	p.P346S	c.1036	0.005076324	7.622	1
1344	GRM5	ENST00000305447	p.G369E	c.1106	0.005076324	0	1
1345	SPOP	ENST00000503676	p.P223S	c.667	0.130074291	0	1
1345	SPOP	ENST00000503676	p.A281S	c.841	0.107267632	3.257	1
1345	SPOP	ENST00000503676	p.L282R	c.845	0.028135362	5.295	1
1346	RBMX	ENST00000320676	p.P59Q	c.176	0.201800269	0	1
1346	RBMX	ENST00000320676	p.G8V	c.23	0.201800269	2.309	1
1347	WARS	ENST00000355338	p.G392V	c.1175	0.019688209	5.776	1
1347	WARS	ENST00000355338	p.C394Y	c.1181	0.080274806	3.665	1
1347	WARS	ENST00000355338	p.R417M	c.1250	0.097085579	0	1
1348	AHCYL2	ENST00000325006	p.L379I	c.1135	0.019440765	0	1
1348	AHCYL2	ENST00000325006	p.S416F	c.1247	0.0108738	6.523	1
1348	AHCYL2	ENST00000325006	p.S529F	c.1586	0.008566966	6.867	1
1349	TASP1	ENST00000337743	p.V86I	c.256	0.174288985	0	1
1349	TASP1	ENST00000337743	p.A237T	c.709	0.109466735	3.292	1
1349	TASP1	ENST00000337743	p.A249V	c.746	0.079563473	3.792	1
1350	SCN5A	ENST00000333535	p.M1851I	c.5553	0.027776334	0	1
1350	SCN5A	ENST00000333535	p.K1872R	c.5615	0.027776334	5.17	1
1351	SMAD4	ENST00000342988	p.A406T	c.1216	0.129772903	0	1
1351	SMAD4	ENST00000342988	p.K428T	c.1283	0.092514407	3.492	1
1351	SMAD4	ENST00000342988	p.S504R	c.1512	0.044527634	4.612	1
1352	RSPO1	ENST00000401068	p.G82E	c.245	0.004716721	0	1
1352	RSPO1	ENST00000401068	p.K113T	c.338	0.004716721	7.728	1
1353	ACLY	ENST00000590151	p.S7L	c.20	0.073914438	3.758	1
1353	ACLY	ENST00000590151	p.T10M	c.29	0.012985092	6.267	1
1353	ACLY	ENST00000590151	p.P239L	c.716	0.086899529	0	1
1354	BPI	ENST00000262865	p.M255I	c.765	1.005734963	0	2
1354	BPI	ENST00000262865	p.V32I	c.94	0.234121626	7.446	1

1355	AHCYL2	ENST00000325006	p.S472G	c.1414	0.006848482	0	1
1355	AHCYL2	ENST00000325006	p.H506R	c.1517	0.006848482	7.19	1
1356	STAT1	ENST00000409465	p.K511E	c.1531	0.019873641	0	1
1356	STAT1	ENST00000409465	p.D575E	c.1725	0.019873641	5.653	1
1357	VPS33A	ENST00000267199	p.R471C	c.1411	0.182588033	2.716	1
1357	VPS33A	ENST00000267199	p.L472F	c.1414	0.05963842	4.272	1
1357	VPS33A	ENST00000267199	p.R498W	c.1492	0.207383034	0	1
1357	VPS33A	ENST00000267199	p.T282M	c.845	0.025941143	8.189	1
1358	STK24	ENST00000376547	p.A134T	c.400	1.00563644	0	2
1358	STK24	ENST00000376547	p.A160T	c.478	0.05192786	7.471	1
1359	ARHGAP9	ENST00000393797	p.K396M	c.1187	0.068535724	0	1
1359	ARHGAP9	ENST00000393797	p.A500S	c.1498	0.068535724	3.867	1
1360	RPL30	ENST00000287038	p.T34I	c.101	0.09297586	3.427	1
1360	RPL30	ENST00000287038	p.L94V	c.280	0.09297586	0	1
1361	CYP2C9	ENST00000260682	p.R335Q	c.1004	1.162812447	0	2
1361	CYP2C9	ENST00000260682	p.Q454H	c.1362	0.390361922	2.746	1
1361	CYP2C9	ENST00000260682	p.E328K	c.982	0.013930895	9.288	1
1361	CYP2C9	ENST00000260682	p.I331F	c.991	0.105801485	6.363	1
1362	DDX58	ENST00000379883	p.R466W	c.1396	0.026088571	6.349	1
1362	DDX58	ENST00000379883	p.Y473C	c.1418	0.019873641	5.653	1
1362	DDX58	ENST00000379883	p.L552I	c.1654	0.032141268	0	1
1363	CSNK2A1	ENST00000349736	p.L70I	c.208	1.116107566	0	2
1363	CSNK2A1	ENST00000349736	p.A110T	c.328	0.209719708	3.262	1
1363	CSNK2A1	ENST00000349736	p.G177S	c.529	0.034132091	6.397	1
1364	SAMHD1	ENST00000262878	p.I397L	c.1189	0.087985915	0	1
1364	SAMHD1	ENST00000262878	p.L422P	c.1265	0.026516586	6.369	1
1364	SAMHD1	ENST00000262878	p.E429D	c.1287	0.07588718	3.72	1
1365	TMPRSS11E	ENST00000305363	p.T250I	c.749	1.113824631	0	1
1365	TMPRSS11E	ENST00000305363	p.T250K	c.749	1.113824631	0	1
1365	TMPRSS11E	ENST00000305363	p.P253H	c.758	0.040311036	8.102	1
1365	TMPRSS11E	ENST00000305363	p.L329F	c.985	0.253401853	3.182	1
1366	KLK3	ENST00000598145	p.T73K	c.218	0.020307147	8.839	1
1366	KLK3	ENST00000598145	p.S91Y	c.272	0.033728953	5.054	1
1367	OTC	ENST00000039007	p.L42H	c.125	0.049070507	4.349	1
1367	OTC	ENST00000039007	p.S60T	c.178	0.017289021	5.854	1
1367	OTC	ENST00000039007	p.L173R	c.518	0.066359529	0	1
1368	MET	ENST00000318493	p.L1223V	c.3667	0.009407323	6.732	1
1368	MET	ENST00000318493	p.M1268T	c.3803	0.009407323	0	1
1369	HDC	ENST00000267845	p.T247N	c.740	0.059931054	6.232	1
1369	HDC	ENST00000267845	p.D273N	c.817	1.013303964	0	2
1370	ZMPSTE24	ENST00000372759	p.E150Q	c.448	0.13057947	0	1
1370	ZMPSTE24	ENST00000372759	p.H263R	c.788	0.13057947	2.937	1
1371	MIA	ENST00000594436	p.S46F	c.137	0.013084476	0	1
1371	MIA	ENST00000594436	p.S74F	c.221	0.013084476	6.256	1
1372	PIWIL2	ENST00000454009	p.R428C	c.1282	1.061682284	0	1
1372	PIWIL2	ENST00000454009	p.R428H	c.1283	1.061682284	0	1
1372	PIWIL2	ENST00000454009	p.I473V	c.1417	0.12495761	4.019	1
1373	CHN2	ENST00000539406	p.M497I	c.1491	0.114735928	0	1
1373	CHN2	ENST00000539406	p.Y527C	c.1580	0.018076287	5.925	1

1373	CHN2	ENST00000539406	p.I531V	c.1591	0.099894682	3.347	1
1374	MMP10	ENST00000279441	p.P186S	c.556	0.014988502	0	1
1374	MMP10	ENST00000279441	p.L261I	c.781	0.014988502	6.06	1
1375	MAGEA4	ENST00000393920	p.S186F	c.557	0.145394739	2.856	1
1375	MAGEA4	ENST00000393920	p.Y187C	c.560	0.059939605	4.247	1
1375	MAGEA4	ENST00000393920	p.R277M	c.830	0.190785987	0	1
1376	IL1RL1	ENST00000233954	p.P114T	c.340	1.006049367	0	1
1376	IL1RL1	ENST00000233954	p.P114Q	c.341_342	1.006049367	0	1
1376	IL1RL1	ENST00000233954	p.W25C	c.75	0.023755073	7.369	1
1378	PDE9A	ENST00000291539	p.H356Y	c.1066	0.07219775	3.906	1
1378	PDE9A	ENST00000291539	p.R368H	c.1103	0.062895373	7.708	1
1378	PDE9A	ENST00000291539	p.P406H	c.1217	0.145900658	3.603	1
1378	PDE9A	ENST00000291539	p.E483K	c.1447	0.15378833	0	1
1379	VWF	ENST00000261405	p.I1372T	c.4115	0.039244277	4.817	1
1379	VWF	ENST00000261405	p.R1379C	c.4135	0.109978587	3.235	1
1379	VWF	ENST00000261405	p.V1409I	c.4225	0.141686941	0	1
1380	SULT2A1	ENST00000222002	p.V37I	c.109	0.108838102	4.367	1
1380	SULT2A1	ENST00000222002	p.S108Y	c.323	1.091239695	0	2
1380	SULT2A1	ENST00000222002	p.R27C	c.79	0.087628331	4.547	1
1381	ANGPT1	ENST00000517746	p.N400K	c.1200	0.007463148	7.066	1
1381	ANGPT1	ENST00000517746	p.R402S	c.1206	0.007375722	7.083	1
1381	ANGPT1	ENST00000517746	p.D433G	c.1299_1298	0.01483887	0	1
1382	G3BP1	ENST00000356245	p.S39F	c.116	0.047063961	4.584	1
1382	G3BP1	ENST00000356245	p.Q93R	c.278	0.134151231	2.957	1
1382	G3BP1	ENST00000356245	p.I130V	c.388	0.170476218	0	1
1384	ERBB4	ENST00000342788	p.I353N	c.1058	0.04264115	0	1
1384	ERBB4	ENST00000342788	p.P386R	c.1157	0.013734993	6.186	1
1384	ERBB4	ENST00000342788	p.E387D	c.1161	0.012841878	6.283	1
1384	ERBB4	ENST00000342788	p.N390I	c.1169	0.016064279	5.96	1
1385	SCN2A	ENST00000283256	p.D1843N	c.5527	0.007562525	0	1
1385	SCN2A	ENST00000283256	p.R1876Q	c.5627	0.003075422	8.345	1
1385	SCN2A	ENST00000283256	p.K1901Q	c.5701	0.004487103	7.8	1
1386	IRS1	ENST00000305123	p.R75W	c.223	0.220791556	3.474	1
1386	IRS1	ENST00000305123	p.K161N	c.483	0.024650767	9.055	1
1386	IRS1	ENST00000305123	p.W164L	c.491	1.313103085	0	1
1386	IRS1	ENST00000305123	p.W164C	c.492	1.313103085	0	1
1386	IRS1	ENST00000305123	p.V195M	c.583	0.030313937	6.235	1
1386	IRS1	ENST00000305123	p.M249L	c.745	0.409416815	2.371	1
1386	IRS1	ENST00000305123	p.E251K	c.751	0.033426243	6.094	1
1387	IL17A	ENST00000340057	p.R43Q	c.128_129	0.04165768	6.513	1
1387	IL17A	ENST00000340057	p.E83Q	c.247	0.196174028	7.111	1
1387	IL17A	ENST00000340057	p.S132F	c.395	1.018183386	0	2
1388	CHKB	ENST00000406938	p.T182I	c.545	0.043254679	4.531	1
1388	CHKB	ENST00000406938	p.S231Y	c.692	0.015495574	6.012	1
1388	CHKB	ENST00000406938	p.S268I	c.803	0.058750253	0	1
1389	INPPL1	ENST00000541756	p.R369C	c.1105	0.021777769	6.521	1
1389	INPPL1	ENST00000541756	p.R399W	c.1195	0.03619665	5.788	1
1389	INPPL1	ENST00000541756	p.R449W	c.1345	1.02898721	0	1
1389	INPPL1	ENST00000541756	p.R449Q	c.1346	1.02898721	0	1

1390 TLR8	ENST00000311912	p.E56G	c.167	0.057411741	0	1
1390 TLR8	ENST00000311912	p.T78A	c.232	0.048968574	4.352	1
1390 TLR8	ENST00000311912	p.L86P	c.257	0.008443167	6.888	1
1391 A2M	ENST00000318602	p.R1163S	c.3489	0.013111713	6.253	1
1391 A2M	ENST00000318602	p.Q1220H	c.3660	0.013111713	0	1
1392 SLAMF6	ENST00000368057	p.L130M	c.388	0.009382422	8.603	1
1392 SLAMF6	ENST00000368057	p.Q134K	c.400	0.019832358	5.656	1
1392 SLAMF6	ENST00000368057	p.T136N	c.407	0.003323686	8.233	1
1392 SLAMF6	ENST00000368057	p.C195Y	c.584	0.025727854	0	1
1393 NLGN4X	ENST00000381095	p.N364K	c.1092	0.025147056	5.445	1
1393 NLGN4X	ENST00000381095	p.V248L	c.742	0.097648639	3.389	1
1393 NLGN4X	ENST00000381095	p.F273L	c.819	0.118413104	0	1
1394 SPSB1	ENST00000328089	p.S55L	c.164	0.03112962	5.134	1
1394 SPSB1	ENST00000328089	p.V91I	c.271	0.121583006	0	1
1394 SPSB1	ENST00000328089	p.P211S	c.631	0.095756296	3.425	1
1395 B4GALT1	ENST00000379731	p.V271I	c.811	0.095325103	0	1
1395 B4GALT1	ENST00000379731	p.R330C	c.988	0.095325103	3.391	1
1397 LY96	ENST00000284818	p.G59E	c.176	0.045122787	5.47	1
1397 LY96	ENST00000284818	p.R90C	c.268	1.022561394	0	2
1398 IL20	ENST00000367098	p.V53M	c.157	0.02323308	0	1
1398 IL20	ENST00000367098	p.L106F	c.316	0.002729779	8.517	1
1398 IL20	ENST00000367098	p.I109F	c.325	0.020503301	5.608	1
1399 SPAST	ENST00000315285	p.K388E	c.1162	0.045919174	0	1
1399 SPAST	ENST00000315285	p.F439C	c.1316	0.04143518	4.593	1
1399 SPAST	ENST00000315285	p.D444Y	c.1330	0.004483994	7.801	1
1400 ME1	ENST00000369705	p.D152V	c.455	0.026864672	5.467	1
1400 ME1	ENST00000369705	p.G153E	c.458	0.012778265	7.078	1
1400 ME1	ENST00000369705	p.C164S	c.490	0.111857907	3.296	1
1400 ME1	ENST00000369705	p.D194N	c.580	0.131823132	0	1
1401 BIN2	ENST00000267012	p.G57C	c.169	0.01225398	0	1
1401 BIN2	ENST00000267012	p.E126K	c.376	0.006679705	7.226	1
1401 BIN2	ENST00000267012	p.R202H	c.605	0.005574275	7.487	1
1402 ACVRL1	ENST00000550683	p.R343C	c.1027	0.038186606	0	1
1402 ACVRL1	ENST00000550683	p.G364S	c.1090	0.006730829	7.215	1
1402 ACVRL1	ENST00000550683	p.V367G	c.1100	0.033214111	5.386	1
1402 ACVRL1	ENST00000550683	p.V394W	c.1180_1181	0.007733138	7.621	1
1402 ACVRL1	ENST00000550683	p.I399F	c.1195	0.004703918	8.666	1
1403 AKR1B1	ENST00000285930	p.E85K	c.253	0.094107498	3.588	1
1403 AKR1B1	ENST00000285930	p.K86R	c.257	0.142619563	2.925	1
1403 AKR1B1	ENST00000285930	p.A143V	c.428	0.214828195	0	1
1404 EXOSC7	ENST00000265564	p.M66I	c.198	0.038406895	4.756	1
1404 EXOSC7	ENST00000265564	p.F81L	c.243	0.00420115	7.895	1
1404 EXOSC7	ENST00000265564	p.V134L	c.400	0.041209638	0	1
1405 EPHX2	ENST00000521400	p.A377T	c.1129	0.078945454	0	1
1405 EPHX2	ENST00000521400	p.S418F	c.1253	0.078945454	3.663	1
1406 HBE1	ENST00000380237	p.K88R	c.263	0.072854635	0	1
1406 HBE1	ENST00000380237	p.A141S	c.421	0.071706892	3.86	1
1406 HBE1	ENST00000380237	p.A143V	c.428	0.003985565	7.971	1
1407 LGR4	ENST00000379214	p.L388P	c.1163	0.029180681	5.182	1

1407 LGR4	ENST00000379214	p.S390F	c.1169	0.060968309	4.075	1
1407 LGR4	ENST00000379214	p.P414S	c.1240	0.086880137	0	1
1408 RACGAP1	ENST00000547905	p.P432L	c.1295	0.080102995	3.642	1
1408 RACGAP1	ENST00000547905	p.I504M	c.1512	0.080102995	0	1
1409 DCTD	ENST00000357067	p.A50T	c.148	1.094349217	0	2
1409 DCTD	ENST00000357067	p.A96T	c.286	0.157919164	3.832	1
1409 DCTD	ENST00000357067	p.A117P	c.349	0.073775846	5.373	1
1410 ZGPAT	ENST00000328969	p.Y139S	c.416	0.005030788	7.635	1
1410 ZGPAT	ENST00000328969	p.M151V	c.451	0.007012733	9.644	1
1410 ZGPAT	ENST00000328969	p.P213L	c.638	0.011638996	0	1
1410 ZGPAT	ENST00000328969	p.R237H	c.710	0.011121119	7.544	1
1411 NFKB1	ENST00000226574	p.L45P	c.134	0.009112104	6.778	1
1411 NFKB1	ENST00000226574	p.M216R	c.647	0.054109958	0	1
1411 NFKB1	ENST00000226574	p.A239T	c.715	0.053817888	4.474	1
1412 SMS	ENST00000404933	p.V356A	c.1067	0.044082674	4.596	1
1412 SMS	ENST00000404933	p.D128E	c.384	0.073361315	3.919	1
1412 SMS	ENST00000404933	p.C318Y	c.953	0.107458543	0	1
1413 NTRK3	ENST00000360948	p.Q531R	c.1592	0.096511663	0	1
1413 NTRK3	ENST00000360948	p.E590K	c.1768	0.004815829	7.698	1
1413 NTRK3	ENST00000360948	p.Y604F	c.1811	0.091695834	3.447	1
1414 LRRC4	ENST00000249363	p.V59M	c.175	0.024343992	7.157	1
1414 LRRC4	ENST00000249363	p.V103I	c.307	1.007006939	0	1
1414 LRRC4	ENST00000249363	p.V103A	c.308	1.007006939	0	1
1415 A2M	ENST00000318602	p.T548I	c.1643	0.00585141	7.417	1
1415 A2M	ENST00000318602	p.P29Q	c.86	0.00585141	0	1
1416 PGK1	ENST00000373316	p.G410V	c.1229	0.048327896	4.371	1
1416 PGK1	ENST00000373316	p.G167D	c.500	0.017169597	5.864	1
1416 PGK1	ENST00000373316	p.M190I	c.570	0.065497493	0	1
1417 DLD	ENST00000205402	p.K417E	c.1249	0.02121164	5.559	1
1417 DLD	ENST00000205402	p.S446L	c.1337	0.033885502	0	1
1417 DLD	ENST00000205402	p.P333S	c.997	0.012673862	6.302	1
1418 MAGEA4	ENST00000393920	p.A211E	c.632	0.099070364	3.441	1
1418 MAGEA4	ENST00000393920	p.D215E	c.645	0.082932183	3.719	1
1418 MAGEA4	ENST00000393920	p.Y284N	c.850	0.16801778	0	1
1419 KRAS	ENST00000256078	p.I36M	c.108	4.180603825	5.798	1
1419 KRAS	ENST00000256078	p.A59T	c.175	27.87368317	3.003	1
1419 KRAS	ENST00000256078	p.A59E	c.176	27.87368317	3.003	1
1419 KRAS	ENST00000256078	p.A59G	c.176	27.87368317	3.003	1
1419 KRAS	ENST00000256078	p.Q61K	c.181_180	37.49946109	3.423	3
1419 KRAS	ENST00000256078	p.Q61L	c.182	37.49946109	3.423	6
1419 KRAS	ENST00000256078	p.Q61R	c.182	37.49946109	3.423	3
1419 KRAS	ENST00000256078	p.Q61H	c.183	37.49946109	3.423	8
1419 KRAS	ENST00000256078	p.E62K	c.184	5.558446135	5.185	1
1419 KRAS	ENST00000256078	p.G12C	c.34	199.3806168	0	43
1419 KRAS	ENST00000256078	p.G12R	c.34	199.3806168	0	6
1419 KRAS	ENST00000256078	p.G12S	c.34	199.3806168	0	4
1419 KRAS	ENST00000256078	p.G12A	c.35	199.3806168	0	12
1419 KRAS	ENST00000256078	p.G12D	c.35	199.3806168	0	68
1419 KRAS	ENST00000256078	p.G12V	c.35	199.3806168	0	63

1419 KRAS	ENST00000256078	p.G12F	c.35_34	199.3806168	0	2
1419 KRAS	ENST00000256078	p.G13C	c.37	29.75340752	8.235	3
1419 KRAS	ENST00000256078	p.G13D	c.38	29.75340752	8.235	25
1419 KRAS	ENST00000256078	p.G13V	c.38	29.75340752	8.235	1
1420 NLGN4X	ENST00000381095	p.G341R	c.1021	0.04785364	6.051	1
1420 NLGN4X	ENST00000381095	p.D345N	c.1033	1.087140229	4.832	2
1420 NLGN4X	ENST00000381095	p.G220D	c.659	1.0918751	0	1
1420 NLGN4X	ENST00000381095	p.G220V	c.659	1.0918751	0	1
1420 NLGN4X	ENST00000381095	p.P293Q	c.878	0.08090403	7.249	1
1421 TPP1	ENST00000299427	p.N489S	c.1466	0.139177702	0	1
1421 TPP1	ENST00000299427	p.N222I	c.665	0.139177702	2.845	1
1422 APEX1	ENST00000216714	p.R193C	c.577	1.018491422	0	1
1422 APEX1	ENST00000216714	p.R193H	c.578	1.018491422	0	1
1422 APEX1	ENST00000216714	p.Q245R	c.734	0.036982844	5.757	1
1423 PROC	ENST00000453608	p.L358R	c.1073	1.020067435	0	2
1423 PROC	ENST00000453608	p.C309F	c.926	0.091292266	5.639	1
1424 GSTM2	ENST00000369831	p.K31N	c.93	0.034915223	0	1
1425 SIRPG	ENST00000303415	p.T54I	c.161	0.06515411	3.94	1
1425 SIRPG	ENST00000303415	p.S57F	c.170	0.007067517	8.082	1
1425 SIRPG	ENST00000303415	p.Q80H	c.240	0.004177918	7.903	1
1425 SIRPG	ENST00000303415	p.D101Y	c.301	0.073022446	0	1
1426 EED	ENST00000351625	p.S156T	c.467	0.074222479	0	1
1426 EED	ENST00000351625	p.P203T	c.607	0.074222479	3.752	1
1427 HK3	ENST00000292432	p.P530T	c.1588	0.002384661	8.712	1
1427 HK3	ENST00000292432	p.V555M	c.1663	0.002384661	0	1
1428 NUMBL	ENST00000598779	p.P108S	c.322	0.087656203	3.512	1
1428 NUMBL	ENST00000598779	p.E141K	c.421	0.087656203	0	1
1429 BCAR3	ENST00000370243	p.C561Y	c.1682	0.010061575	6.635	1
1429 BCAR3	ENST00000370243	p.R601K	c.1802	0.010061575	0	1
1430 RHEB	ENST00000262187	p.G63W	c.187	0.123279088	3.02	1
1430 RHEB	ENST00000262187	p.G13N	c.38_37	0.123279088	0	1
1431 PDHA1	ENST00000379806	p.V93L	c.277	0.05421531	8.961	1
1431 PDHA1	ENST00000379806	p.G145D	c.434	2.107252847	0	3
1431 PDHA1	ENST00000379806	p.E302K	c.904	0.073022246	6.035	1
1431 PDHA1	ENST00000379806	p.R305K	c.914	0.304477871	3.474	1
1432 CRYBB1	ENST00000215939	p.G111R	c.331	0.076468003	3.709	1
1432 CRYBB1	ENST00000215939	p.R132C	c.394	0.076468003	0	1
1433 ADSSL1	ENST00000332972	p.R368C	c.1102	0.084905393	0	1
1433 ADSSL1	ENST00000332972	p.V412I	c.1234	0.084905393	3.558	1
1434 CHID1	ENST00000323541	p.Y418N	c.1252	0.033871003	5.137	1
1434 CHID1	ENST00000323541	p.F70I	c.208	0.025506345	5.293	1
1434 CHID1	ENST00000323541	p.R95C	c.283	0.053925353	0	1
1436 MGAM	ENST00000475668	p.G1014E	c.3041	0.057252062	0	1
1436 MGAM	ENST00000475668	p.T1043S	c.3127	0.048529305	4.365	1
1436 MGAM	ENST00000475668	p.P1078S	c.3232	0.008722758	6.841	1
1439 TDRD5	ENST00000444136	p.V64F	c.190	0.01998415	0	1
1439 TDRD5	ENST00000444136	p.R16K	c.47	0.01998415	5.645	1
1440 VAT1L	ENST00000302536	p.S353F	c.1058	0.122380802	6.264	1
1440 VAT1L	ENST00000302536	p.I377N	c.1130	0.256047577	2.637	1

1440 VAT1L	ENST00000302536	p.L378M	c.1132	0.031776423	6.476	1
1440 VAT1L	ENST00000302536	p.E105Q	c.313	0.261158908	0	1
1440 VAT1L	ENST00000302536	p.V130A	c.389	0.058210612	4.351	1
1440 VAT1L	ENST00000302536	p.A158T	c.472	0.042831923	5.203	1
1441 ALDH7A1	ENST00000409134	p.R404C	c.1210	2.227090526	0	1
1441 ALDH7A1	ENST00000409134	p.R404H	c.1211	2.227090526	0	2
1441 ALDH7A1	ENST00000409134	p.G274E	c.821	1.068803992	6.255	2
1441 ALDH7A1	ENST00000409134	p.A305S	c.913	1.25444656	3.763	2
1441 ALDH7A1	ENST00000409134	p.A321T	c.961	0.168652159	4.222	1
1442 AGTR1	ENST00000404754	p.F251L	c.753	0.018465805	0	1
1442 AGTR1	ENST00000404754	p.F293L	c.879	0.018465805	5.759	1
1443 GABBR1	ENST00000377034	p.P58S	c.172	0.26990484	4.142	1
1443 GABBR1	ENST00000377034	p.T115M	c.344	1.064448458	0	2
1443 GABBR1	ENST00000377034	p.R126W	c.376	0.193082586	7.001	1
1444 PIP4K2A	ENST00000376573	p.T362A	c.1084	0.084338517	0	1
1444 PIP4K2A	ENST00000376573	p.F178L	c.534	0.014224228	8.875	1
1444 PIP4K2A	ENST00000376573	p.A267T	c.799	0.002161128	8.854	1
1444 PIP4K2A	ENST00000376573	p.D273N	c.817	0.080047491	3.643	1
1445 TAS2R39	ENST00000446620	p.I55S	c.164	0.079770548	0	1
1445 TAS2R39	ENST00000446620	p.P304T	c.910	0.079770548	3.648	1
1446 ADAM22	ENST00000315984	p.V259I	c.775	0.030755751	5.023	1
1446 ADAM22	ENST00000315984	p.A294V	c.881	0.030755751	0	1
1447 CUL3	ENST00000264414	p.R90Q	c.269	0.007834191	6.996	1
1447 CUL3	ENST00000264414	p.V93I	c.277	0.010503398	6.573	1
1447 CUL3	ENST00000264414	p.V152I	c.454	0.018337589	0	1
1448 NLGN4X	ENST00000381095	p.H489N	c.1465	0.055216723	5.402	1
1448 NLGN4X	ENST00000381095	p.S509I	c.1526	0.021790108	9.102	1
1448 NLGN4X	ENST00000381095	p.L114Q	c.341	0.025745549	5.97	1
1448 NLGN4X	ENST00000381095	p.L120M	c.358	0.07749346	5.737	1
1448 NLGN4X	ENST00000381095	p.F128L	c.384	0.124509858	3.456	1
1448 NLGN4X	ENST00000381095	p.G175R	c.523	0.152367909	0	1
1448 NLGN4X	ENST00000381095	p.P333Q	c.998	0.066443209	9.869	1
1449 CUBN	ENST00000377833	p.E1206Q	c.3616	0.010843693	7.527	1
1449 CUBN	ENST00000377833	p.V1225A	c.3674	0.015155233	7.446	1
1449 CUBN	ENST00000377833	p.R1249C	c.3745	1.177945182	0	2
1449 CUBN	ENST00000377833	p.C1278W	c.3834	0.050083435	5.461	1
1449 CUBN	ENST00000377833	p.E1279K	c.3835	0.291442706	2.795	1
1450 TSHR	ENST00000298171	p.N135K	c.405	0.022460568	6.466	1
1450 TSHR	ENST00000298171	p.N187D	c.559	0.053764713	0	1
1450 TSHR	ENST00000298171	p.K211T	c.632	0.042452696	4.558	1
1451 HUWE1	ENST00000342160	p.T4083A	c.12247	0.030178755	0	1
1451 HUWE1	ENST00000342160	p.S4148I	c.12443	0.012267627	6.349	1
1451 HUWE1	ENST00000342160	p.E4149K	c.12445	0.017911128	5.803	1
1452 PLXNC1	ENST00000258526	p.F246I	c.736	0.056250121	4.152	1
1452 PLXNC1	ENST00000258526	p.I267M	c.801	0.056250121	0	1
1453 PTPRO	ENST00000281171	p.Y974C	c.2921	0.106875272	0	1
1453 PTPRO	ENST00000281171	p.N996K	c.2988	0.106875272	3.226	1
1454 TAPBP	ENST00000489157	p.R121H	c.362	0.074959236	0	1
1454 TAPBP	ENST00000489157	p.P176R	c.527	0.011093143	7.17	1

1454 TAPBP	ENST00000489157	p.E179Q	c.535	0.068015153	3.878	1
1455 UPF2	ENST00000357604	p.W954L	c.2861	0.014680043	0	1
1455 UPF2	ENST00000357604	p.E994K	c.2980	0.014680043	6.09	1
1456 DHPS	ENST00000210060	p.F36L	c.108	0.016299822	0	1
1456 DHPS	ENST00000210060	p.H122Q	c.366	0.016299822	5.939	1
1457 LRP6	ENST00000261349	p.N1143T	c.3428	0.047629526	4.392	1
1457 LRP6	ENST00000261349	p.E1168Q	c.3502	0.047629526	0	1
1458 MYOM1	ENST00000356443	p.V1636M	c.4906	0.104289979	3.325	1
1458 MYOM1	ENST00000356443	p.A1639T	c.4915	0.009143739	6.773	1
1458 MYOM1	ENST00000356443	p.S1641L	c.4922	0.049625468	4.47	1
1458 MYOM1	ENST00000356443	p.V1663M	c.4987	0.154053825	0	1
1459 NR1I3	ENST00000367979	p.R254Q	c.761	0.072594296	3.784	1
1459 NR1I3	ENST00000367979	p.R313L	c.938	0.072594296	0	1
1460 COL18A1	ENST00000359759	p.G1354A	c.4061	0.010746326	0	1
1460 COL18A1	ENST00000359759	p.R1478H	c.4433	0.007854866	7.503	1
1460 COL18A1	ENST00000359759	p.R1496Q	c.4487	0.00523353	7.578	1
1461 PLCB3	ENST00000279230	p.R44H	c.131	0.008955564	0	1
1461 PLCB3	ENST00000279230	p.R87Q	c.260	0.008955564	6.803	1
1462 RPL9	ENST00000295955	p.N42D	c.124	0.01431041	0	1
1462 RPL9	ENST00000295955	p.T69A	c.205	0.013257936	6.237	1
1462 RPL9	ENST00000295955	p.R71Q	c.212	0.001052474	9.892	1
1463 PVRL1	ENST00000264025	p.P56R	c.167	0.207883139	3.485	1
1463 PVRL1	ENST00000264025	p.V60M	c.178	0.122784942	3.162	1
1463 PVRL1	ENST00000264025	p.R101Q	c.302	0.210733931	0	1
1463 PVRL1	ENST00000264025	p.D106V	c.317	0.119374989	6.688	1
1464 ALDOB	ENST00000374855	p.T253I	c.758	0.101822043	0	1
1464 ALDOB	ENST00000374855	p.L289R	c.866	0.097719994	3.5	1
1464 ALDOB	ENST00000374855	p.C290F	c.869	0.014621077	6.218	1
1465 AGO2	ENST00000220592	p.Q41H	c.123	0.120915849	0	1
1465 AGO2	ENST00000220592	p.R714L	c.2141	0.085639907	3.6	1
1465 AGO2	ENST00000220592	p.C717S	c.2149	0.041617267	4.701	1
1466 NCAM2	ENST00000400546	p.G388W	c.1162	0.119889802	3.257	1
1466 NCAM2	ENST00000400546	p.P302S	c.904	0.132391709	0	1
1466 NCAM2	ENST00000400546	p.H303D	c.907	0.022856371	9.577	1
1466 NCAM2	ENST00000400546	p.E327K	c.979	0.038279308	5.239	1
1467 RB1	ENST00000267163	p.K94N	c.282	0.015061403	6.053	1
1467 RB1	ENST00000267163	p.L134V	c.400	0.015061403	0	1
1468 CRYGB	ENST00000260988	p.F6L	c.18	0.120558598	3.255	1
1468 CRYGB	ENST00000260988	p.D65Y	c.193	0.16674528	2.728	1
1468 CRYGB	ENST00000260988	p.R32C	c.94	0.255683466	0	1
1469 RAB7A	ENST00000265062	p.A65T	c.193	0.0147924	0	1
1469 RAB7A	ENST00000265062	p.I13F	c.37	0.0147924	6.079	1
1470 CPB2	ENST00000181383	p.Y156C	c.467	0.041500549	7.116	1
1470 CPB2	ENST00000181383	p.V222M	c.664	0.076270132	3.736	1
1470 CPB2	ENST00000181383	p.F244C	c.731	0.077246816	5.943	1
1470 CPB2	ENST00000181383	p.E286Q	c.856	0.098513832	0	1
1471 ETF1	ENST00000360541	p.S70L	c.209	0.016209687	5.947	1
1471 ETF1	ENST00000360541	p.L126F	c.378	0.016209687	0	1
1472 TGM3	ENST00000381458	p.S424G	c.1270	0.167567362	2.695	1

1472 TGM3	ENST00000381458	p.V436I	c.1306	0.071852816	6.311	1
1472 TGM3	ENST00000381458	p.I163M	c.489	0.083688741	3.786	1
1472 TGM3	ENST00000381458	p.T295N	c.884	0.239516102	0	1
1473 CR2	ENST00000367057	p.S89Y	c.266	1.01367799	0	2
1473 CR2	ENST00000367057	p.G111C	c.331	0.036367585	6.192	1
1474 UPF2	ENST00000357604	p.R668C	c.2002	1.106020807	0	1
1474 UPF2	ENST00000357604	p.R668S	c.2002	1.106020807	0	1
1474 UPF2	ENST00000357604	p.G671L	c.2012_2011	0.096820955	7.061	1
1474 UPF2	ENST00000357604	p.C704F	c.2111	0.079979181	7.153	1
1474 UPF2	ENST00000357604	p.T709K	c.2126	0.264853551	3.45	1
1475 LIF	ENST00000249075	p.C34W	c.102	0.024294689	8.889	1
1475 LIF	ENST00000249075	p.R121M	c.362_361	0.016377763	8.366	1
1475 LIF	ENST00000249075	p.S173L	c.518	1.005140309	0	2
1476 ZRANB1	ENST00000359653	p.V561A	c.1682	0.064973715	3.944	1
1476 ZRANB1	ENST00000359653	p.L619V	c.1855	0.064973715	0	1
1477 UPP2	ENST00000605860	p.D115H	c.343	0.087468305	3.624	1
1477 UPP2	ENST00000605860	p.M135I	c.405	0.006245358	7.323	1
1477 UPP2	ENST00000605860	p.E142Q	c.424	0.069565295	3.958	1
1477 UPP2	ENST00000605860	p.E143K	c.427	0.015203123	6.152	1
1477 UPP2	ENST00000605860	p.G164R	c.490	0.165762816	0	1
1478 CHIA	ENST00000369740	p.G60R	c.178	0.032165147	5.407	1
1478 CHIA	ENST00000369740	p.N63D	c.187	0.012140739	6.364	1
1478 CHIA	ENST00000369740	p.F119S	c.356	0.035709177	0	1
1479 DAO	ENST00000228476	p.A207T	c.619	0.129335912	3.055	1
1479 DAO	ENST00000228476	p.M210V	c.628	0.08390592	3.739	1
1479 DAO	ENST00000228476	p.V236A	c.707	0.195218619	0	1
1480 DPYSL3	ENST00000343218	p.M476L	c.1426	1.115422219	0	1
1480 DPYSL3	ENST00000343218	p.M476I	c.1428	1.115422219	0	1
1480 DPYSL3	ENST00000343218	p.V524I	c.1570	0.121111443	5.466	1
1480 DPYSL3	ENST00000343218	p.G183V	c.548	0.335377002	3.664	1
1480 DPYSL3	ENST00000343218	p.T216A	c.646	0.210090311	6.168	1
1481 HPD	ENST00000289004	p.G65R	c.193	0.021492841	5.54	1
1481 HPD	ENST00000289004	p.M180I	c.540	0.021492841	0	1
1483 GSTA1	ENST00000334575	p.T68A	c.202	0.056642494	4.856	1
1483 GSTA1	ENST00000334575	p.A76V	c.227	0.015066008	6.246	1
1483 GSTA1	ENST00000334575	p.N80S	c.239	0.160870311	2.801	1
1483 GSTA1	ENST00000334575	p.S154R	c.462	0.19250181	0	1
1483 GSTA1	ENST00000334575	p.E31K	c.91	0.167229242	9.578	1
1485 S100B	ENST00000291700	p.D70N	c.208	0.220064753	0	1
1485 S100B	ENST00000291700	p.V14I	c.40	0.220064753	2.184	1
1486 HHIP	ENST00000296575	p.D431N	c.1291	1.046322464	0	2
1486 HHIP	ENST00000296575	p.G457E	c.1370	0.084558776	4.695	1
1486 HHIP	ENST00000296575	p.P490S	c.1468	0.127674951	7.018	1
1487 EXOSC5	ENST00000221233	p.R190Q	c.569	0.080604266	0	1
1487 EXOSC5	ENST00000221233	p.S217W	c.650	0.080604266	3.633	1
1488 F9	ENST00000218099	p.L372I	c.1114	0.279803424	6.206	1
1488 F9	ENST00000218099	p.M394L	c.1180	0.130842325	9.362	1
1488 F9	ENST00000218099	p.F395L	c.1185	0.168227547	9.051	1
1488 F9	ENST00000218099	p.D410N	c.1228	1.033674145	0	1

1488 F9	ENST00000218099	p.D410E	c.1230	1.033674145	0	1
1488 F9	ENST00000218099	p.G442R	c.1324	0.047039449	5.902	1
1489 HIST1H2BK	ENST00000356950	p.E36K	c.106	0.018060077	0	1
1489 HIST1H2BK	ENST00000356950	p.M60I	c.180	0.004635691	7.753	1
1489 HIST1H2BK	ENST00000356950	p.V67I	c.199	0.0145057	6.219	1
1490 AHCYL1	ENST00000369799	p.R173C	c.517	0.159541096	2.648	1
1490 AHCYL1	ENST00000369799	p.R214H	c.641	0.159541096	0	1
1491 SERPINA6	ENST00000341584	p.Q114H	c.342	0.03184035	4.973	1
1491 SERPINA6	ENST00000341584	p.E152V	c.455	0.03184035	0	1
1492 PFKM	ENST00000340802	p.K546N	c.1638	0.009678505	0	1
1492 PFKM	ENST00000340802	p.G582D	c.1745	0.009678505	6.691	1
1493 BARD1	ENST00000260947	p.L625I	c.1873	0.136470805	0	1
1493 BARD1	ENST00000260947	p.S660R	c.1980	0.054717438	4.311	1
1493 BARD1	ENST00000260947	p.G698C	c.2092	0.090427889	3.538	1
1495 JAK2	ENST00000539801	p.I540N	c.1619	0.169038195	4.668	1
1495 JAK2	ENST00000539801	p.R564G	c.1690	0.087550345	8.291	1
1495 JAK2	ENST00000539801	p.V617F	c.1849	1.042528878	0	2
1496 FDFT1	ENST00000220584	p.T368M	c.1103	0.010385172	9.979	1
1496 FDFT1	ENST00000220584	p.D145N	c.433	0.187891121	2.568	1
1496 FDFT1	ENST00000220584	p.R149I	c.446	0.215070773	3.245	1
1496 FDFT1	ENST00000220584	p.Y174C	c.521	0.100080429	6.846	1
1496 FDFT1	ENST00000220584	p.R185H	c.554	0.283798252	0	1
1497 ARID3A	ENST00000263620	p.G284S	c.850	0.170400326	2.553	1
1497 ARID3A	ENST00000263620	p.S333N	c.998	0.170400326	0	1
1498 ACHE	ENST00000411582	p.D341E	c.1023	0.052374196	5.255	1
1498 ACHE	ENST00000411582	p.A238T	c.712	0.048697786	5.36	1
1498 ACHE	ENST00000411582	p.T269M	c.806	1.050535991	0	2
1499 CRYGS	ENST00000307944	p.I138F	c.412	0.050119328	4.454	1
1499 CRYGS	ENST00000307944	p.Y150H	c.448	0.102975063	3.344	1
1499 CRYGS	ENST00000307944	p.R175H	c.524	0.144107736	0	1
1500 SHH	ENST00000297261	p.D83N	c.247	0.016475743	9.146	1
1500 SHH	ENST00000297261	p.R123W	c.367	0.144057061	3.059	1
1500 SHH	ENST00000297261	p.I148L	c.442	0.203866209	0	1
1500 SHH	ENST00000297261	p.E176K	c.526	0.010039507	7.915	1
1500 SHH	ENST00000297261	p.C183Y	c.548	0.087321901	3.681	1
1501 NOS2	ENST00000313735	p.L542I	c.1624	0.044347605	4.495	1
1501 NOS2	ENST00000313735	p.M572V	c.1714	0.044347605	0	1
1502 NUP214	ENST00000451030	p.D368Y	c.1102	0.081616	3.71	1
1502 NUP214	ENST00000451030	p.A386P	c.1156	0.011288519	6.469	1
1502 NUP214	ENST00000451030	p.P400S	c.1198	0.073263296	3.877	1
1502 NUP214	ENST00000451030	p.L68F	c.202	0.15576585	0	1
1503 RIPK2	ENST00000220751	p.W118C	c.354	0.007577827	7.044	1
1503 RIPK2	ENST00000220751	p.R123C	c.367	0.070560275	3.825	1
1503 RIPK2	ENST00000220751	p.L294V	c.880	0.078138103	0	1
1504 NTRK1	ENST00000524377	p.R507C	c.1519	0.015131778	7.021	1
1504 NTRK1	ENST00000524377	p.F557Y	c.1670_1671	0.083273427	3.586	1
1504 NTRK1	ENST00000524377	p.V578I	c.1732	0.090973031	0	1
1505 SPARC	ENST00000231061	p.K150R	c.449	0.111500258	0	1
1505 SPARC	ENST00000231061	p.R256P	c.767	0.070697364	3.884	1

1505 SPARC	ENST00000231061	p.E263K	c.787	0.046731876	4.514	1
1506 SPTBN1	ENST00000356805	p.W202L	c.605	0.008298119	6.913	1
1506 SPTBN1	ENST00000356805	p.A230T	c.688	0.01537829	0	1
1506 SPTBN1	ENST00000356805	p.E254K	c.760	0.007080171	7.142	1
1507 COL4A1	ENST00000375820	p.W1578R	c.4732	0.134051563	3.019	1
1507 COL4A1	ENST00000375820	p.Y1581H	c.4741	0.097316362	3.529	1
1507 COL4A1	ENST00000375820	p.C1604S	c.4810	0.209993936	0	1
1508 CRYGB	ENST00000260988	p.W69R	c.205	0.193359338	0	1
1508 CRYGB	ENST00000260988	p.L134I	c.400	0.073651366	3.937	1
1508 CRYGB	ENST00000260988	p.R141M	c.422	0.136431233	2.965	1
1509 PDHX	ENST00000227868	p.R189G	c.565	0.006982697	0	1
1509 PDHX	ENST00000227868	p.I210M	c.630	0.006982697	7.162	1
1510 FANCM	ENST00000267430	p.R1860H	c.5579	0.145517994	0	1
1510 FANCM	ENST00000267430	p.E1952K	c.5854	0.138477776	2.864	1
1510 FANCM	ENST00000267430	p.N1989H	c.5965	0.009282215	6.937	1
1511 PMM1	ENST00000216259	p.T82M	c.245	0.077481731	0	1
1511 PMM1	ENST00000216259	p.Y200C	c.599	0.077481731	3.69	1
1512 A2M	ENST00000318602	p.T1285I	c.3854	0.025266844	0	1
1512 A2M	ENST00000318602	p.P1306Q	c.3917	0.009169126	6.769	1
1512 A2M	ENST00000318602	p.E1311K	c.3931	0.016097718	5.957	1
1513 PYGL	ENST00000216392	p.E89D	c.267	0.138628504	4.124	1
1513 PYGL	ENST00000216392	p.R243C	c.727	1.057352493	0	1
1513 PYGL	ENST00000216392	p.R243H	c.728	1.057352493	0	1
1514 BROX	ENST00000340934	p.P336S	c.1006	0.011784219	0	1
1514 BROX	ENST00000340934	p.K266N	c.798	0.011784219	6.407	1
1515 LDHA	ENST00000540430	p.S67G	c.199	0.115501951	6.705	1
1515 LDHA	ENST00000540430	p.L99V	c.295	0.228239777	0	1
1515 LDHA	ENST00000540430	p.L101F	c.301	0.018686702	9.678	1
1515 LDHA	ENST00000540430	p.R200C	c.598	0.106004693	3.391	1
1515 LDHA	ENST00000540430	p.I281T	c.842	0.040414345	6.633	1
1515 LDHA	ENST00000540430	p.A286T	c.856	0.227850731	3.158	1
1516 LIN28B	ENST00000345080	p.E84K	c.250	0.010351636	6.738	1
1516 LIN28B	ENST00000345080	p.G103A	c.308	0.105949792	3.252	1
1516 LIN28B	ENST00000345080	p.H33N	c.97	0.114334717	0	1
1517 MPO	ENST00000340482	p.F637L	c.1911	0.010005936	6.643	1
1517 MPO	ENST00000340482	p.K703N	c.2109	0.010005936	0	1
1518 ITGAX	ENST00000562522	p.M400I	c.1200	0.031995216	5.966	1
1518 ITGAX	ENST00000562522	p.R426C	c.1276	1.035074897	0	1
1518 ITGAX	ENST00000562522	p.R426S	c.1276	1.035074897	0	1
1518 ITGAX	ENST00000562522	p.G459W	c.1375	1.019077289	6.712	1
1518 ITGAX	ENST00000562522	p.G459V	c.1376	1.019077289	6.712	1
1519 LILRB2	ENST00000391749	p.G138E	c.413	0.061011818	8.527	1
1519 LILRB2	ENST00000391749	p.L142I	c.424	0.180827275	0	1
1519 LILRB2	ENST00000391749	p.S182F	c.545	0.112644723	3.252	1
1519 LILRB2	ENST00000391749	p.V183M	c.547	0.117888029	3.773	1
1520 C11orf54	ENST00000528099	p.R58I	c.173	0.026556083	7.176	1
1520 C11orf54	ENST00000528099	p.L95F	c.283	1.006915264	0	2
1521 PIK3CA	ENST00000263967	p.D725N	c.2173	0.058879648	9.378	1
1521 PIK3CA	ENST00000263967	p.E726K	c.2176	13.1603819	0	14

1521	PIK3CA	ENST00000263967	p.R777K	c.2330	2.131071995	3.654	1
1521	PIK3CA	ENST00000263967	p.R777M	c.2330	2.131071995	3.654	1
1522	SMAD2	ENST00000402690	p.L442V	c.1324	0.083316781	5.906	1
1522	SMAD2	ENST00000402690	p.L446V	c.1336	0.188058299	4.107	1
1522	SMAD2	ENST00000402690	p.D450N	c.1348	0.196389294	5.785	1
1522	SMAD2	ENST00000402690	p.D304G	c.911	0.166215063	8.65	1
1522	SMAD2	ENST00000402690	p.P305L	c.914	1.095334637	0	1
1522	SMAD2	ENST00000402690	p.P305Q	c.914	1.095334637	0	1
1523	ERBB4	ENST00000342788	p.G130E	c.389	0.016194879	9.073	1
1523	ERBB4	ENST00000342788	p.D150N	c.448	0.028659691	5.919	1
1523	ERBB4	ENST00000342788	p.L155F	c.463	0.145976226	2.949	1
1523	ERBB4	ENST00000342788	p.T180A	c.538	0.14788196	0	1
1524	CHI3L1	ENST00000255409	p.P124L	c.371	0.142125264	2.825	1
1524	CHI3L1	ENST00000255409	p.R128H	c.383	0.008124255	7.134	1
1524	CHI3L1	ENST00000255409	p.E160K	c.478	0.148240092	0	1
1525	NAALAD2	ENST00000534061	p.Q78H	c.234	0.463294031	2.11	1
1525	NAALAD2	ENST00000534061	p.N146S	c.437	1.231647015	0	2
1526	PLA2G4A	ENST00000367466	p.L570F	c.1708	0.02179287	0	1
1526	PLA2G4A	ENST00000367466	p.P188H	c.563	0.02179287	5.52	1
1527	VCAM1	ENST00000294728	p.R60K	c.179	1.149263375	0	2
1527	VCAM1	ENST00000294728	p.E105G	c.314	0.347530615	2.839	1
1527	VCAM1	ENST00000294728	p.I27M	c.81	0.087026439	6.717	1
1528	KLK5	ENST00000391809	p.P222S	c.664	0.057352493	0	1
1528	KLK5	ENST00000391809	p.T276M	c.827	0.057352493	4.124	1
1529	ADH5	ENST00000296412	p.H67R	c.200	0.156481454	2.696	1
1529	ADH5	ENST00000296412	p.K159N	c.477	0.108974582	9.376	1
1529	ADH5	ENST00000296412	p.C174Y	c.521	0.169829515	0	1
1529	ADH5	ENST00000296412	p.P329K	c.986_985	0.123634856	6.158	1
1530	ACHE	ENST00000411582	p.E481K	c.1441	0.026859758	0	1
1530	ACHE	ENST00000411582	p.A504T	c.1510	0.014710601	6.087	1
1530	ACHE	ENST00000411582	p.L258M	c.772	0.025170301	6.363	1
1531	BTK	ENST00000308731	p.H35N	c.103	0.098508587	0	1
1531	BTK	ENST00000308731	p.V131I	c.391	0.033441711	4.996	1
1531	BTK	ENST00000308731	p.A2V	c.5	0.069276771	3.896	1
1532	JAK1	ENST00000342505	p.R879H	c.2636	0.145617234	0	1
1532	JAK1	ENST00000342505	p.F958C	c.2873	0.074443838	3.854	1
1532	JAK1	ENST00000342505	p.G962E	c.2885	0.016763561	5.995	1
1532	JAK1	ENST00000342505	p.R1139W	c.3415	0.020868526	5.679	1
1532	JAK1	ENST00000342505	p.S1141C	c.3421	0.044116816	4.599	1
1533	ERBB2	ENST00000269571	p.D742H	c.2224	0.007259068	0	1
1533	ERBB2	ENST00000269571	p.K937R	c.2810	0.007259068	7.106	1
1534	ARG1	ENST00000356962	p.S80Y	c.239	0.014690222	6.089	1
1534	ARG1	ENST00000356962	p.F170L	c.510	0.014690222	0	1
1535	KCNU1	ENST00000399881	p.E970K	c.2908	0.031510987	0	1
1535	KCNU1	ENST00000399881	p.P1029T	c.3085	0.01508007	8.319	1
1535	KCNU1	ENST00000399881	p.C1043F	c.3128	0.028379638	5.139	1
1536	ARIH1	ENST00000379887	p.T218I	c.653	0.006125316	0	1
1536	ARIH1	ENST00000379887	p.I249V	c.745	0.006125316	7.351	1
1538	CHKB	ENST00000406938	p.T155N	c.464	0.192305359	0	1

1538	CHKB	ENST00000406938	p.E283A	c.848	0.081707159	3.776	1
1538	CHKB	ENST00000406938	p.Y286H	c.856	0.111026739	3.296	1
1538	CHKB	ENST00000406938	p.T289A	c.865	0.020552094	5.837	1
1539	GRIK1	ENST00000327783	p.E485K	c.1453	0.019640834	5.67	1
1539	GRIK1	ENST00000327783	p.E803D	c.2409	0.019640834	0	1
1540	IGF1R	ENST00000268035	p.I364M	c.1092	0.082412101	4.601	1
1540	IGF1R	ENST00000268035	p.R365P	c.1094	0.028478165	6.134	1
1540	IGF1R	ENST00000268035	p.R391H	c.1172	1.055445133	0	2
1541	EPHA3	ENST00000336596	p.E615K	c.1843	0.125433969	2.995	1
1541	EPHA3	ENST00000336596	p.K691N	c.2073	0.125433969	0	1
1542	PPIB	ENST00000300026	p.F123L	c.369	0.214212372	3.054	1
1542	PPIB	ENST00000300026	p.H132Y	c.394	0.067929398	4.127	1
1542	PPIB	ENST00000300026	p.T147S	c.440	0.216300872	6.905	1
1542	PPIB	ENST00000300026	p.T155M	c.464	0.252462395	0	1
1542	PPIB	ENST00000300026	p.M176I	c.528	0.078286096	3.911	1
1543	SF1	ENST00000377387	p.V278A	c.833	0.233832325	2.795	1
1543	SF1	ENST00000377387	p.G306R	c.916	0.454012718	0	1
1543	SF1	ENST00000377387	p.L328F	c.982	0.399673457	1.69	1
1544	LRP6	ENST00000261349	p.S114Y	c.341	0.048765343	5.358	1
1544	LRP6	ENST00000261349	p.W157F	c.471_470	1.033356877	0	2
1544	LRP6	ENST00000261349	p.I181M	c.543	0.017948412	6.8	1
1545	SNRNP70	ENST00000598441	p.G127E	c.380	0.001293952	0	1
1545	SNRNP70	ENST00000598441	p.R155Q	c.464	0.001293952	9.594	1
1546	TRDMT1	ENST00000377799	p.M72I	c.216	0.02071759	0	1
1546	TRDMT1	ENST00000377799	p.L117I	c.349	0.02071759	5.593	1
1547	ACHE	ENST00000411582	p.R76H	c.227	0.014629254	6.095	1
1547	ACHE	ENST00000411582	p.P80S	c.238	0.029543816	5.081	1
1547	ACHE	ENST00000411582	p.E197Q	c.589	0.04417307	0	1
1548	P2RY12	ENST00000302632	p.L115P	c.344	0.073863222	3.759	1
1548	P2RY12	ENST00000302632	p.V205F	c.613	0.073863222	0	1
1549	WWP1	ENST00000517970	p.K568Q	c.1702	0.115561488	0	1
1549	WWP1	ENST00000517970	p.R595H	c.1784	0.058865492	5.428	1
1549	WWP1	ENST00000517970	p.Y597C	c.1790	0.094478342	3.437	1
1550	U2AF2	ENST00000308924	p.R150H	c.449	0.032106295	0	1
1550	U2AF2	ENST00000308924	p.R227C	c.679	0.032106295	4.961	1
1551	IL5RA	ENST00000256452	p.R147K	c.440	0.006992383	7.16	1
1551	IL5RA	ENST00000256452	p.R208H	c.623	0.006557262	8.669	1
1551	IL5RA	ENST00000256452	p.A264T	c.790	0.00944919	0	1
1552	MAPK1	ENST00000398822	p.R172H	c.515	0.063344066	4.777	1
1552	MAPK1	ENST00000398822	p.P176S	c.526	0.14728511	2.815	1
1552	MAPK1	ENST00000398822	p.G204S	c.610	0.178575812	0	1
1553	C3	ENST00000245907	p.R841Q	c.2522	0.263389576	8.935	1
1553	C3	ENST00000245907	p.E843K	c.2527	1.052669648	0	2
1553	C3	ENST00000245907	p.V932M	c.2794	0.193715396	6.199	1
1553	C3	ENST00000245907	p.G935R	c.2803	1.052191778	6.4	2
1553	C3	ENST00000245907	p.K1589E	c.4765	0.049380516	6.229	1
1554	GRM5	ENST00000305447	p.Y478C	c.1433	0.009532035	6.713	1
1554	GRM5	ENST00000305447	p.D480A	c.1439	0.010330114	6.597	1
1554	GRM5	ENST00000305447	p.Q318H	c.954	0.019862149	0	1

1555 CD1A	ENST00000289429	p.D51N	c.151	0.202172928	3.331	1
1555 CD1A	ENST00000289429	p.R200W	c.598	0.012630014	7.307	1
1555 CD1A	ENST00000289429	p.W260R	c.778	1.105688163	0	2
1556 FCN1	ENST00000371806	p.A218D	c.653	0.195761303	6.641	1
1556 FCN1	ENST00000371806	p.A244V	c.731	0.253482721	6.133	1
1556 FCN1	ENST00000371806	p.S247F	c.740	3.144368555	0	1
1556 FCN1	ENST00000371806	p.S247Y	c.740	3.144368555	0	3
1556 FCN1	ENST00000371806	p.L248V	c.742	0.164357532	6.873	1
1556 FCN1	ENST00000371806	p.W306C	c.918	0.742876589	3.164	1
1557 CA2	ENST00000285379	p.Q92E	c.274	0.180708332	3.708	1
1557 CA2	ENST00000285379	p.F130L	c.390	0.183791695	9.025	1
1557 CA2	ENST00000285379	p.G182R	c.544	1.078440596	0	2
1558 XIAP	ENST00000371199	p.M262I	c.786	0.014367969	0	1
1558 XIAP	ENST00000371199	p.P312F	c.934_935	0.014367969	6.121	1
1559 CFBF	ENST00000412916	p.I102N	c.305	1.030289807	0	1
1559 CFBF	ENST00000412916	p.I102M	c.306	1.030289807	0	1
1559 CFBF	ENST00000412916	p.A132T	c.394	0.059571379	5.192	1
1559 CFBF	ENST00000412916	p.Q133H	c.399	0.005867656	8.413	1
1560 CBS	ENST00000352178	p.L540M	c.1618	0.097523885	0	1
1560 CBS	ENST00000352178	p.E187D	c.561	0.009685216	6.69	1
1560 CBS	ENST00000352178	p.E213K	c.637	0.087838669	3.509	1
1562 CYP1A1	ENST00000567032	p.H51Y	c.151	0.037188491	4.749	1
1562 CYP1A1	ENST00000567032	p.I78M	c.234	0.037188491	0	1
1563 PLAU	ENST00000372764	p.C91F	c.272	0.246900215	0	1
1563 PLAU	ENST00000372764	p.C133F	c.398	0.246900215	2.018	1
1564 TLR8	ENST00000311912	p.L341I	c.1021	0.088533928	3.521	1
1564 TLR8	ENST00000311912	p.G348V	c.1043	0.035482469	5.936	1
1564 TLR8	ENST00000311912	p.I320N	c.959	0.103444829	0	1
1565 ACACB	ENST00000338432	p.P2045L	c.6134	0.009156424	6.771	1
1565 ACACB	ENST00000338432	p.T2081I	c.6242_6243	0.031345602	0	1
1565 ACACB	ENST00000338432	p.G2126E	c.6377	0.022189177	5.494	1
1566 KLHL2	ENST00000514860	p.N499Y	c.1495	0.036600318	4.772	1
1566 KLHL2	ENST00000514860	p.G547C	c.1639	0.036600318	0	1
1567 IL17RA	ENST00000319363	p.D387N	c.1159	0.2300607	0	1
1567 IL17RA	ENST00000319363	p.R449C	c.1345	0.093450179	3.609	1
1567 IL17RA	ENST00000319363	p.G450D	c.1349	0.152839242	2.834	1
1567 IL17RA	ENST00000319363	p.V465L	c.1393	0.008963894	6.991	1
1568 PIK3CA	ENST00000263967	p.S629C	c.1886	0.045328063	0	1
1568 PIK3CA	ENST00000263967	p.R818C	c.2452	0.032871931	4.927	1
1568 PIK3CA	ENST00000263967	p.N170S	c.509	0.012456132	6.327	1
1569 TXNIP	ENST00000369317	p.M171V	c.511	0.008555097	6.869	1
1569 TXNIP	ENST00000369317	p.R177W	c.529	0.005295564	7.561	1
1569 TXNIP	ENST00000369317	p.R207L	c.620	0.013850661	0	1
1570 CSF2RB	ENST00000406230	p.E335D	c.1005	0.032084048	4.962	1
1570 CSF2RB	ENST00000406230	p.K336T	c.1007	0.028577034	5.129	1
1570 CSF2RB	ENST00000406230	p.R122W	c.364	0.060661082	0	1
1571 C6	ENST00000263413	p.S794N	c.2381	0.051259475	5.871	1
1571 C6	ENST00000263413	p.K817R	c.2450	2.017086492	0	1
1571 C6	ENST00000263413	p.K817T	c.2450	2.017086492	0	2

1572	GZMK	ENST00000231009	p.V51I	c.151	0.036524289	4.775	1
1572	GZMK	ENST00000231009	p.D160E	c.480	0.036524289	0	1
1573	PDE4C	ENST00000594617	p.K518N	c.1554	0.149996423	2.737	1
1573	PDE4C	ENST00000594617	p.D614N	c.1840	0.149996423	0	1
1574	DICER1	ENST00000343455	p.S911I	c.2732	0.034838847	5.326	1
1574	DICER1	ENST00000343455	p.R935K	c.2804	0.206298565	0	1
1574	DICER1	ENST00000343455	p.A1039D	c.3116	0.191278334	2.463	1
1575	MSN	ENST00000360270	p.V42A	c.125	0.026950093	0	1
1575	MSN	ENST00000360270	p.M285I	c.855	0.010110513	6.628	1
1575	MSN	ENST00000360270	p.R293H	c.878	0.01683958	5.892	1
1576	SULT1E1	ENST00000226444	p.P114S	c.340	0.020977695	5.575	1
1576	SULT1E1	ENST00000226444	p.A115V	c.344	0.009290681	6.75	1
1576	SULT1E1	ENST00000226444	p.A32T	c.94	0.030268376	0	1
1577	ACADM	ENST00000370834	p.F48C	c.143	1.012056876	0	2
1577	ACADM	ENST00000370834	p.L84F	c.250	0.024113753	6.374	1
1578	TXNDC12	ENST00000371626	p.C66Y	c.197	0.259714776	2.945	1
1578	TXNDC12	ENST00000371626	p.R114Q	c.341	1.129857388	0	2
1579	HIST1H1B	ENST00000331442	p.T95A	c.283	0.11018502	3.182	1
1579	HIST1H1B	ENST00000331442	p.P156A	c.466	0.11018502	0	1
1580	ERI1	ENST00000519292	p.Q343K	c.1027	0.010679589	6.549	1
1580	ERI1	ENST00000519292	p.Q205R	c.614	0.010679589	0	1
1581	PLG	ENST00000308192	p.R386Q	c.1157	0.150784707	0	1
1581	PLG	ENST00000308192	p.A419V	c.1256	0.13671676	2.894	1
1581	PLG	ENST00000308192	p.T422S	c.1264	0.018441436	5.943	1
1582	DYRK2	ENST00000344096	p.R191C	c.571	1.04482079	0	2
1582	DYRK2	ENST00000344096	p.D216V	c.647	0.112150211	5.16	1
1582	DYRK2	ENST00000344096	p.R294H	c.881	0.089913658	5.891	1
1583	TRAPPC6A	ENST00000006275	p.K81M	c.242	0.066615421	3.908	1
1583	TRAPPC6A	ENST00000006275	p.P171L	c.512	0.066615421	0	1
1584	CA1	ENST00000523022	p.G7R	c.19	1.014377932	0	1
1584	CA1	ENST00000523022	p.G7E	c.20	1.014377932	0	1
1584	CA1	ENST00000523022	p.P202R	c.605	0.041553312	6.12	1
1585	HGF	ENST00000222390	p.C604Y	c.1811	0.02814645	0	1
1585	HGF	ENST00000222390	p.M686T	c.2057	0.014477938	6.11	1
1585	HGF	ENST00000222390	p.L688I	c.2062	0.013668512	6.193	1
1586	XDH	ENST00000379416	p.D386H	c.1156	0.146793617	0	1
1586	XDH	ENST00000379416	p.N461T	c.1382	0.05242214	4.39	1
1586	XDH	ENST00000379416	p.A466V	c.1397	0.113550136	3.335	1
1587	XDH	ENST00000379416	p.R599C	c.1795	1.019491225	0	1
1587	XDH	ENST00000379416	p.R599P	c.1796	1.019491225	0	1
1587	XDH	ENST00000379416	p.E601K	c.1801	0.162751176	9.596	1
1587	XDH	ENST00000379416	p.E603K	c.1807	0.187094217	9.566	1
1587	XDH	ENST00000379416	p.I751V	c.2251	0.094669017	7.095	1
1587	XDH	ENST00000379416	p.G821V	c.2462	0.342785684	6.708	1
1588	ALDOB	ENST00000374855	p.G29R	c.85	0.298300546	5.554	1
1588	ALDOB	ENST00000374855	p.F300L	c.900	0.220367501	4.234	1
1588	ALDOB	ENST00000374855	p.S301P	c.901	0.339801823	2.617	1
1588	ALDOB	ENST00000374855	p.L31M	c.91	0.371405442	0	1
1588	ALDOB	ENST00000374855	p.L306M	c.916	0.165781083	2.9	1

1589 SUPV3L1	ENST00000359655	p.H356N	c.1066	0.019478144	0	1
1589 SUPV3L1	ENST00000359655	p.K495Q	c.1483	0.019478144	5.682	1
1590 PHKG2	ENST00000328273	p.R44Q	c.131	0.00524079	7.576	1
1590 PHKG2	ENST00000328273	p.E19K	c.55	0.00524079	0	1
1592 IFNAR1	ENST00000270139	p.Y303D	c.907	0.035673585	0	1
1592 IFNAR1	ENST00000270139	p.D325H	c.973	0.035673585	4.809	1
1593 MS4A1	ENST00000345732	p.L206F	c.616	0.03381952	0	1
1593 MS4A1	ENST00000345732	p.L230V	c.688	0.03381952	4.886	1
1594 GLA	ENST00000493905	p.T39M	c.116	0.012917933	6.483	1
1594 GLA	ENST00000493905	p.D93H	c.277	0.032381487	6.669	1
1594 GLA	ENST00000493905	p.C172W	c.516	0.176508187	0	1
1595 SF1	ENST00000377387	p.L190P	c.569	0.134623297	0	1
1595 SF1	ENST00000377387	p.R227H	c.680	0.134623297	2.893	1
1596 EP300	ENST00000263253	p.R1737C	c.5209	0.016827912	0	1
1596 EP300	ENST00000263253	p.K1760R	c.5279	0.016827912	5.893	1
1597 PCSK9	ENST00000302118	p.R357H	c.1070	0.076771481	6.99	1
1597 PCSK9	ENST00000302118	p.A475T	c.1423	0.099952653	3.456	1
1597 PCSK9	ENST00000302118	p.E498K	c.1492	0.019435219	5.811	1
1597 PCSK9	ENST00000302118	p.A522V	c.1565	0.116804509	0	1
1598 PRKCA	ENST00000413366	p.P398Q	c.1193	0.040526236	4.625	1
1598 PRKCA	ENST00000413366	p.E606K	c.1816	0.040526236	0	1
1599 RB1	ENST00000267163	p.V654L	c.1960	1.013926726	0	1
1599 RB1	ENST00000267163	p.V654M	c.1960	1.013926726	0	1
1599 RB1	ENST00000267163	p.M695V	c.2083	0.0388409	6.166	1
1600 HK2	ENST00000290573	p.S682N	c.2045	0.13601637	0	1
1600 HK2	ENST00000290573	p.E742Q	c.2224	0.13057947	2.937	1
1600 HK2	ENST00000290573	p.D861Y	c.2581	0.01012104	7.523	1
1601 A2M	ENST00000318602	p.I1091V	c.3271	0.09134063	3.493	1
1601 A2M	ENST00000318602	p.G1094V	c.3281	0.030921694	5.138	1
1601 A2M	ENST00000318602	p.Q1252H	c.3756	0.117217569	0	1
1602 KCND3	ENST00000302127	p.R49G	c.145	0.116833125	0	1
1602 KCND3	ENST00000302127	p.E81D	c.243	0.006456643	7.275	1
1602 KCND3	ENST00000302127	p.F83L	c.249	0.023263976	6.216	1
1602 KCND3	ENST00000302127	p.E89K	c.265	0.098228007	3.367	1
1603 MX1	ENST00000398600	p.N220S	c.659	0.014649548	0	1
1603 MX1	ENST00000398600	p.G255E	c.764	0.014649548	6.093	1
1604 SUPV3L1	ENST00000359655	p.R656Q	c.1967	0.032017401	4.965	1
1604 SUPV3L1	ENST00000359655	p.R259L	c.776	0.032017401	0	1
1605 ACE	ENST00000290866	p.P876S	c.2626	1.01906407	0	2
1605 ACE	ENST00000290866	p.G1099D	c.3296	0.050159972	5.713	1
1606 IDH1	ENST00000415913	p.R109K	c.326	20.17381059	3.148	1
1606 IDH1	ENST00000415913	p.R132C	c.394	177.1233233	0	28
1606 IDH1	ENST00000415913	p.R132G	c.394	177.1233233	0	7
1606 IDH1	ENST00000415913	p.R132S	c.394	177.1233233	0	5
1606 IDH1	ENST00000415913	p.R132H	c.395	177.1233233	0	137
1606 IDH1	ENST00000415913	p.R132L	c.395	177.1233233	0	1
1606 IDH1	ENST00000415913	p.M291I	c.873	1.972091686	6.572	1
1607 PIK3R1	ENST00000274335	p.P617R	c.1850	0.015282393	8.521	1
1607 PIK3R1	ENST00000274335	p.G627A	c.1880	0.210055176	9.186	1

1607	PIK3R1	ENST00000274335	p.E635K	c.1903	0.012508168	6.604	1
1607	PIK3R1	ENST00000274335	p.R642P	c.1925	0.012284767	6.63	1
1607	PIK3R1	ENST00000274335	p.F646S	c.1937	0.235496942	2.206	1
1607	PIK3R1	ENST00000274335	p.R649W	c.1945	0.218365166	6.923	1
1607	PIK3R1	ENST00000274335	p.V718A	c.2153	0.249790906	0	1
1608	3-Sep	ENST00000396426	p.V67I	c.199	0.011630041	7.426	1
1608	3-Sep	ENST00000396426	p.W139L	c.416	1.005815021	0	2
1609	PTPN1	ENST00000371621	p.C231G	c.691	0.03221776	0	1
1609	PTPN1	ENST00000371621	p.M3T	c.8	0.03221776	4.956	1
1610	OPRK1	ENST00000265572	p.F143L	c.429	0.109658635	4.265	1
1610	OPRK1	ENST00000265572	p.F147V	c.439	0.232475685	2.178	1
1610	OPRK1	ENST00000265572	p.S186L	c.557	0.275333129	0	1
1610	OPRK1	ENST00000265572	p.F283S	c.848	0.073674744	8.74	1
1611	B3GAT3	ENST00000265471	p.H154Y	c.460	1.020095273	0	2
1611	B3GAT3	ENST00000265471	p.R277W	c.829	0.040190546	5.637	1
1612	ADORA2A	ENST00000337539	p.P215S	c.643	0.22203533	0	1
1612	ADORA2A	ENST00000337539	p.R293P	c.878	0.215168436	2.229	1
1612	ADORA2A	ENST00000337539	p.K301N	c.903	0.010590717	6.84	1
1613	CYP2C8	ENST00000371270	p.V366M	c.1096	0.036982844	4.757	1
1613	CYP2C8	ENST00000371270	p.M388L	c.1162	0.061113317	0	1
1613	CYP2C8	ENST00000371270	p.H78Y	c.232	0.024130473	5.373	1
1614	VAV1	ENST00000602142	p.L666P	c.1997	0.394206664	0	1
1614	VAV1	ENST00000602142	p.R688H	c.2063	0.171853975	3.035	1
1614	VAV1	ENST00000602142	p.G691R	c.2071	0.022398532	7.072	1
1614	VAV1	ENST00000602142	p.R696W	c.2086	0.044689302	6.407	1
1614	VAV1	ENST00000602142	p.V715I	c.2143	0.033578155	8.846	1
1614	VAV1	ENST00000602142	p.T739A	c.2215	0.252381645	2.436	1
1614	VAV1	ENST00000602142	p.Q747H	c.2241	0.086272081	3.921	1
1615	TRIM69	ENST00000329464	p.S147Y	c.440	0.003452842	8.178	1
1615	TRIM69	ENST00000329464	p.K148R	c.443	0.006900899	7.179	1
1615	TRIM69	ENST00000329464	p.E149K	c.445	0.003448059	8.18	1
1615	TRIM69	ENST00000329464	p.L270F	c.808	0.013801799	0	1
1616	GSTK1	ENST00000479303	p.E93Q	c.277	0.004825854	0	1
1616	GSTK1	ENST00000479303	p.R124C	c.370	0.004825854	7.695	1
1617	C3	ENST00000245907	p.R951C	c.2851	0.074628201	7.191	1
1617	C3	ENST00000245907	p.E992K	c.2974	1.189660055	0	1
1617	C3	ENST00000245907	p.E992D	c.2976	1.189660055	0	1
1617	C3	ENST00000245907	p.A994G	c.2981	0.133125666	9.972	1
1617	C3	ENST00000245907	p.A1024T	c.3070	0.112373863	6.369	1
1617	C3	ENST00000245907	p.D1115H	c.3343	0.1411186	5.962	1
1617	C3	ENST00000245907	p.R1254H	c.3761	0.458137464	2.702	1
1618	SH3KBP1	ENST00000397821	p.R102Q	c.305	0.359484133	0	1
1618	SH3KBP1	ENST00000397821	p.E126D	c.378	0.359484133	1.476	1
1619	RBP2	ENST00000232217	p.R81Q	c.242	0.024348893	5.36	1
1619	RBP2	ENST00000232217	p.A23S	c.67	0.024348893	0	1
1620	EIF2B1	ENST00000424014	p.R103G	c.307	0.005737288	0	1
1620	EIF2B1	ENST00000424014	p.R147Q	c.440	0.004610056	7.761	1
1620	EIF2B1	ENST00000424014	p.R28P	c.83	0.001127232	9.793	1
1621	FSCN1	ENST00000382361	p.P140S	c.418	0.041714132	0	1

1621 FSCN1	ENST00000382361	p.A180V	c.539	0.034172983	4.871	1
1621 FSCN1	ENST00000382361	p.Q189H	c.567	0.007541149	7.051	1
1622 ME1	ENST00000369705	p.E83K	c.247	1.122597375	0	2
1622 ME1	ENST00000369705	p.P22T	c.64	0.251470485	3.028	1
1623 MEMO1	ENST00000379383	p.R107L	c.320	0.110792052	0	1
1623 MEMO1	ENST00000379383	p.H150R	c.449	0.007198939	7.118	1
1623 MEMO1	ENST00000379383	p.D152A	c.455	0.109714185	3.271	1
1624 CWC27	ENST00000381070	p.G65C	c.193	0.038101722	4.714	1
1624 CWC27	ENST00000381070	p.S111I	c.332	0.038101722	0	1
1625 SERPINA1	ENST00000448921	p.V361A	c.1082	0.320782218	2.505	1
1625 SERPINA1	ENST00000448921	p.S383Y	c.1148	0.025108038	8.14	1
1625 SERPINA1	ENST00000448921	p.L407V	c.1219	0.029772707	6.307	1
1625 SERPINA1	ENST00000448921	p.G410R	c.1228	0.112128203	3.615	1
1625 SERPINA1	ENST00000448921	p.F75L	c.225	0.459008004	0	1
1625 SERPINA1	ENST00000448921	p.G319V	c.956	0.34725686	2.434	1
1626 ETFA	ENST00000557943	p.R209Q	c.626	0.096388177	0	1
1626 ETFA	ENST00000557943	p.A243S	c.727	0.096388177	3.375	1
1627 LIG4	ENST00000356922	p.E427D	c.1281	0.088572337	3.497	1
1627 LIG4	ENST00000356922	p.R580G	c.1738	0.088572337	0	1
1628 NR5A2	ENST00000367362	p.G108R	c.322	1.020291228	0	1
1628 NR5A2	ENST00000367362	p.G108E	c.323	1.020291228	0	1
1628 NR5A2	ENST00000367362	p.R142H	c.425	1.020291228	6.623	2
1629 PYCARD	ENST00000247470	p.H118N	c.352	0.024627903	0	1
1629 PYCARD	ENST00000247470	p.R160W	c.478	0.006963363	7.166	1
1629 PYCARD	ENST00000247470	p.S195G	c.583	0.01766454	5.823	1
1630 PTGIS	ENST00000244043	p.V403I	c.1207	0.013048249	6.26	1
1630 PTGIS	ENST00000244043	p.N302S	c.905	0.013048249	0	1
1631 HNF4A	ENST00000316099	p.H92N	c.274	0.019458796	7.5	1
1631 HNF4A	ENST00000316099	p.Y94C	c.281	0.052517059	5.429	1
1631 HNF4A	ENST00000316099	p.R113G	c.337	0.134848654	3.019	1
1631 HNF4A	ENST00000316099	p.D135N	c.403	0.152100604	0	1
1632 PTPRF	ENST00000359947	p.C1460W	c.4380	0.106505512	0	1
1632 PTPRF	ENST00000359947	p.R1507H	c.4520	0.106505512	3.231	1
1633 SYT1	ENST00000393240	p.P338S	c.1012	0.134218014	0	1
1633 SYT1	ENST00000393240	p.D276N	c.826	0.039798011	4.786	1
1633 SYT1	ENST00000393240	p.I277T	c.830	0.05321351	4.35	1
1633 SYT1	ENST00000393240	p.L295M	c.883	0.053107955	4.353	1
1634 IQGAP1	ENST00000268182	p.E1043D	c.3129	0.024654589	0	1
1634 IQGAP1	ENST00000268182	p.R1194Q	c.3581	0.024654589	5.342	1
1635 DBI	ENST00000542275	p.E73K	c.217	1.183244668	0	2
1635 DBI	ENST00000542275	p.E73K	c.217	0.089770457	7.372	1
1635 DBI	ENST00000542275	p.A134G	c.401	0.240822256	3.686	1
1635 DBI	ENST00000542275	p.G147V	c.440	0.206753717	3.329	1
1637 CSNK2B	ENST00000375866	p.L89F	c.265	0.017898717	0	1
1637 CSNK2B	ENST00000375866	p.G160S	c.478	0.017898717	5.804	1
1638 IFNB1	ENST00000380232	p.E74K	c.220	0.140053295	6.026	1
1638 IFNB1	ENST00000380232	p.A76T	c.226	0.049586319	7.234	1
1638 IFNB1	ENST00000380232	p.G135E	c.404	1.021988698	0	1
1638 IFNB1	ENST00000380232	p.G135V	c.404	1.021988698	0	1

1639	EPHB1	ENST00000398015	p.V437I	c.1309	0.044809896	4.623	1
1639	EPHB1	ENST00000398015	p.P438S	c.1312	0.003961667	8.604	1
1639	EPHB1	ENST00000398015	p.I439M	c.1317	0.001259442	9.633	1
1639	EPHB1	ENST00000398015	p.P460T	c.1378	0.008181991	8.608	1
1639	EPHB1	ENST00000398015	p.R90C	c.268	0.046974839	0	1
1640	CECR1	ENST00000262607	p.K401N	c.1203	0.008906041	6.811	1
1640	CECR1	ENST00000262607	p.Y482H	c.1444	0.008906041	0	1
1641	PDCD6	ENST00000264933	p.E47K	c.139	0.006838995	0	1
1641	PDCD6	ENST00000264933	p.G79S	c.235	0.006838995	7.192	1
1642	AXL	ENST00000301178	p.P168S	c.502	0.057471878	4.121	1
1642	AXL	ENST00000301178	p.R190H	c.569	0.057471878	0	1
1643	UBE2Q1	ENST00000292211	p.S401P	c.1201	0.002090408	8.902	1
1643	UBE2Q1	ENST00000292211	p.R333S	c.999	0.002090408	0	1
1645	IL1R2	ENST00000332549	p.Q140H	c.420	0.149834582	2.889	1
1645	IL1R2	ENST00000332549	p.I141N	c.422	0.106367224	3.429	1
1645	IL1R2	ENST00000332549	p.Y204C	c.611	0.016643615	6.557	1
1645	IL1R2	ENST00000332549	p.R227H	c.680	0.238464661	0	1
1646	TP63	ENST00000264731	p.R343Q	c.1028	0.058842425	0	1
1646	TP63	ENST00000264731	p.M316I	c.948	0.049343368	4.341	1
1646	TP63	ENST00000264731	p.R319L	c.956	0.009499057	6.718	1
1647	APTX	ENST00000463596	p.A217T	c.649	0.103296146	3.404	1
1647	APTX	ENST00000463596	p.R218S	c.654	0.102254228	3.42	1
1647	APTX	ENST00000463596	p.G301R	c.901	0.187898074	0	1
1648	NT5E	ENST00000257770	p.I343V	c.1027	0.033660803	5.075	1
1648	NT5E	ENST00000257770	p.Y345C	c.1034	0.138617158	2.893	1
1648	NT5E	ENST00000257770	p.R480Q	c.1439	0.164290238	0	1
1649	NMT1	ENST00000592782	p.T363M	c.1088	0.00915008	0	1
1649	NMT1	ENST00000592782	p.M456V	c.1366	0.00915008	6.772	1
1650	DDX3X	ENST00000399959	p.S412F	c.1235	1.059843949	0	2
1650	DDX3X	ENST00000399959	p.R528C	c.1582	1.055627751	6.245	1
1650	DDX3X	ENST00000399959	p.R528H	c.1583	1.055627751	6.245	1
1650	DDX3X	ENST00000399959	p.D558H	c.1672	0.089018008	6.035	1
1650	DDX3X	ENST00000399959	p.P568L	c.1703	0.036448418	5.778	1
1651	DKK1	ENST00000373970	p.Q184H	c.552	0.019464647	5.683	1
1651	DKK1	ENST00000373970	p.C189S	c.566	0.01674646	5.9	1
1651	DKK1	ENST00000373970	p.K211T	c.632	0.066817992	0	1
1651	DKK1	ENST00000373970	p.I233V	c.697	0.042060921	5.03	1
1652	AZGP1	ENST00000292401	p.D55G	c.164	0.094764722	3.434	1
1652	AZGP1	ENST00000292401	p.D86in_frame_del	c.258_256	0.042762615	9.951	1
1652	AZGP1	ENST00000292401	p.A178V	c.533	0.068188676	5.369	1
1652	AZGP1	ENST00000292401	p.R27H	c.80	0.117733601	0	1
1653	HRAS	ENST00000311189	p.A59T	c.175	1.124093262	5.706	1
1653	HRAS	ENST00000311189	p.Q61K	c.181	18.44203447	0	5
1653	HRAS	ENST00000311189	p.Q61L	c.182	18.44203447	0	2
1653	HRAS	ENST00000311189	p.Q61R	c.182	18.44203447	0	10
1653	HRAS	ENST00000311189	p.A11D	c.32	2.346200201	3.055	1
1653	HRAS	ENST00000311189	p.G12C	c.34	10.90356124	2.214	1
1653	HRAS	ENST00000311189	p.G12S	c.34	10.90356124	2.214	2
1653	HRAS	ENST00000311189	p.G12A	c.35	10.90356124	2.214	1

1653	HRAS	ENST00000311189	p.G12D	c.35	10.90356124	2.214	4
1653	HRAS	ENST00000311189	p.G13C	c.37	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G13R	c.37	9.154840729	4.032	3
1653	HRAS	ENST00000311189	p.G13S	c.37	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G13D	c.38	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G13V	c.38	9.154840729	4.032	3
1653	HRAS	ENST00000311189	p.D33N	c.97	0.598317025	5.153	1
1654	ESYT2	ENST00000251527	p.D385H	c.1153	0.274082684	0	1
1654	ESYT2	ENST00000251527	p.P408A	c.1222	0.019663401	6	1
1654	ESYT2	ENST00000251527	p.D432N	c.1294	0.262496085	1.952	1
1655	SERPINA12	ENST00000556881	p.A356T	c.1066	0.006973023	0	1
1655	SERPINA12	ENST00000556881	p.P76S	c.226	0.006973023	7.164	1
1656	IL18	ENST00000528832	p.D71V	c.212	0.14569265	2.779	1
1656	IL18	ENST00000528832	p.E192K	c.574	0.14569265	0	1
1657	PLK1	ENST00000300093	p.P220A	c.658	0.093356216	9.139	1
1657	PLK1	ENST00000300093	p.D233G	c.698	1.043316646	0	2
1657	PLK1	ENST00000300093	p.R293H	c.878	0.129308858	5.662	1
1657	PLK1	ENST00000300093	p.I296N	c.887	0.063063883	5.52	1
1658	IL33	ENST00000381434	p.L126I	c.376	0.02568865	7.699	1
1658	IL33	ENST00000381434	p.I145V	c.433	0.073265351	4.07	1
1658	IL33	ENST00000381434	p.V147D	c.440	0.265127413	2.117	1
1658	IL33	ENST00000381434	p.N245Y	c.733	0.294878147	0	1
1659	NLRP1	ENST00000572272	p.I1390T	c.4169	0.106137031	3.236	1
1659	NLRP1	ENST00000572272	p.P1423H	c.4268	0.106137031	0	1
1660	ACSM2A	ENST00000424070	p.A156G	c.467	0.044435548	4.705	1
1660	ACSM2A	ENST00000424070	p.R178I	c.533	0.197322091	0	1
1661	PLA2G7	ENST00000274793	p.D238H	c.712	0.037034149	0	1
1661	PLA2G7	ENST00000274793	p.R264M	c.791	0.037034149	4.755	1
1662	GBA	ENST00000327247	p.P358S	c.1072	0.109877818	3.366	1
1662	GBA	ENST00000327247	p.S403R	c.1209	0.027642044	8.517	1
1662	GBA	ENST00000327247	p.G103A	c.308	0.147374442	3.19	1
1662	GBA	ENST00000327247	p.A139S	c.415	0.209296851	0	1
1663	CUL1	ENST00000602748	p.E241Q	c.721	1.018800148	0	1
1663	CUL1	ENST00000602748	p.E241D	c.723	1.018800148	0	1
1663	CUL1	ENST00000602748	p.E286K	c.856	0.020760716	6.59	1
1663	CUL1	ENST00000602748	p.R289K	c.866	0.01683958	6.892	1
1664	KLHL40	ENST00000287777	p.V355F	c.1063	0.048562954	4.364	1
1664	KLHL40	ENST00000287777	p.V611L	c.1831	0.048562954	0	1
1665	KDR	ENST00000263923	p.D832N	c.2494	1.01127288	0	1
1665	KDR	ENST00000263923	p.D832Y	c.2494	1.01127288	0	1
1665	KDR	ENST00000263923	p.R863M	c.2588	0.034023641	6.471	1
1666	RRAGC	ENST00000373001	p.Q192H	c.576	0.081164913	0	1
1666	RRAGC	ENST00000373001	p.L217R	c.650	0.081164913	3.623	1
1667	GINS3	ENST00000426538	p.V34M	c.100	0.109045338	0	1
1667	GINS3	ENST00000426538	p.L107P	c.320	0.109045338	3.197	1
1668	MUT	ENST00000274813	p.A376S	c.1126	0.02110897	5.566	1
1668	MUT	ENST00000274813	p.N314K	c.942	0.02110897	0	1
1669	RAB11B	ENST00000328024	p.A84T	c.250	0.167589074	2.577	1
1669	RAB11B	ENST00000328024	p.D114Y	c.340	0.167589074	0	1

1670 DUSP10	ENST00000323825	p.R42W	c.124	0.106611106	3.34	1
1670 DUSP10	ENST00000323825	p.M82I	c.246	0.087405625	3.652	1
1670 DUSP10	ENST00000323825	p.F116L	c.346	0.178304847	0	1
1671 TUBG1	ENST00000251413	p.E20Q	c.58	0.014268723	6.131	1
1671 TUBG1	ENST00000251413	p.F225L	c.675	0.014268723	0	1
1672 ALOX15B	ENST00000380183	p.E50D	c.150	0.071893243	3.798	1
1672 ALOX15B	ENST00000380183	p.T10A	c.28	0.071893243	0	1
1673 ZFYVE9	ENST00000371591	p.R1365C	c.4093	0.145390005	0	1
1673 ZFYVE9	ENST00000371591	p.E1415Q	c.4243	0.145390005	2.782	1
1674 NRP2	ENST00000360409	p.R334H	c.1001	0.01067219	6.55	1
1674 NRP2	ENST00000360409	p.R239G	c.715	0.01067219	0	1
1675 RGS1	ENST00000367459	p.Q96K	c.286	0.038386585	0	1
1675 RGS1	ENST00000367459	p.E134Q	c.400	0.030944795	5.249	1
1675 RGS1	ENST00000367459	p.T169P	c.505	0.033147622	6.37	1
1676 HIST1H2BK	ENST00000356950	p.R73H	c.218	0.000984037	0	1
1676 HIST1H2BK	ENST00000356950	p.E114K	c.340	0.000984037	9.989	1
1677 ADSSL1	ENST00000332972	p.P354H	c.1061	0.022639721	5.465	1
1677 ADSSL1	ENST00000332972	p.F432I	c.1294	0.022639721	0	1
1678 PDE4B	ENST00000341517	p.V403M	c.1207	0.111455592	0	1
1678 PDE4B	ENST00000341517	p.H450Y	c.1348	0.086112382	3.577	1
1678 PDE4B	ENST00000341517	p.R581H	c.1742	0.038398691	5.176	1
1679 SARS	ENST00000369923	p.R47S	c.141	0.009074287	0	1
1679 SARS	ENST00000369923	p.D118E	c.354	0.009074287	6.784	1
1680 HS3ST5	ENST00000312719	p.L343F	c.1029	0.152406887	3.714	1
1680 HS3ST5	ENST00000312719	p.D254H	c.760	1.076203443	0	1
1680 HS3ST5	ENST00000312719	p.D254N	c.760	1.076203443	0	1
1681 UBE3A	ENST00000397954	p.R506I	c.1517	0.139081265	0	1
1681 UBE3A	ENST00000397954	p.R539L	c.1616	0.139081265	2.846	1
1682 VAV2	ENST00000371850	p.A821S	c.2461	0.348930709	0	1
1682 VAV2	ENST00000371850	p.V842L	c.2524	0.204177411	2.525	1
1682 VAV2	ENST00000371850	p.E874K	c.2620	0.205628565	2.513	1
1683 PRKCH	ENST00000332981	p.R449H	c.1346	0.026935432	5.443	1
1683 PRKCH	ENST00000332981	p.R450C	c.1348	0.188888809	3.634	1
1683 PRKCH	ENST00000332981	p.R455Q	c.1364	0.025429537	5.526	1
1683 PRKCH	ENST00000332981	p.A456T	c.1366	0.176216786	3.455	1
1683 PRKCH	ENST00000332981	p.M547I	c.1641	0.224272274	0	1
1683 PRKCH	ENST00000332981	p.L548F	c.1642	0.178848306	6.994	1
1684 EXO1	ENST00000348581	p.D143Y	c.427	0.007427024	7.073	1
1684 EXO1	ENST00000348581	p.A151V	c.452	0.015766432	5.987	1
1684 EXO1	ENST00000348581	p.T31A	c.91	0.023193456	0	1
1685 CEACAM8	ENST00000244336	p.E47K	c.139	0.247071413	3.017	1
1685 CEACAM8	ENST00000244336	p.P142S	c.424	1.123535706	0	2
1686 RBM25	ENST00000527432	p.V798I	c.2392	0.003377099	8.21	1
1686 RBM25	ENST00000527432	p.F822C	c.2465	0.003377099	0	1
1687 CYP2C9	ENST00000260682	p.R433W	c.1297	0.023179608	5.431	1
1687 CYP2C9	ENST00000260682	p.G117E	c.350	0.023179608	0	1
1688 FBP2	ENST00000375337	p.E281K	c.841	0.010166733	6.62	1
1688 FBP2	ENST00000375337	p.R314Q	c.941	0.010166733	0	1
1689 TRDMT1	ENST00000377999	p.R371H	c.1112	0.082469244	3.6	1

1689 TRDMT1	ENST00000377799	p.K295N	c.885	0.082469244	0	1
1690 IL5RA	ENST00000256452	p.L47I	c.139	2.002605905	0	3
1690 IL5RA	ENST00000256452	p.A116S	c.346	0.010626184	8.584	1
1691 GRM7	ENST00000467425	p.A125T	c.373	0.020803931	0	1
1691 GRM7	ENST00000467425	p.P147L	c.440	0.020803931	5.587	1
1692 RYR2	ENST00000360064	p.Q386K	c.1156	0.193650609	3.081	1
1692 RYR2	ENST00000360064	p.R387H	c.1160	0.130369896	3.458	1
1692 RYR2	ENST00000360064	p.V245F	c.733	0.031223697	9.594	1
1692 RYR2	ENST00000360064	p.H259Y	c.775	0.216823089	0	1
1692 RYR2	ENST00000360064	p.E261K	c.781	0.088743242	7.298	1
1693 CECR1	ENST00000262607	p.G142R	c.424	1.014032954	0	2
1693 CECR1	ENST00000262607	p.N185H	c.553_552	0.107398885	6.268	1
1693 CECR1	ENST00000262607	p.I210N	c.629	0.083560417	9.886	1
1694 ANXA6	ENST00000354546	p.A605T	c.1813	0.008614603	0	1
1694 ANXA6	ENST00000354546	p.L260I	c.778	0.008614603	6.859	1
1695 POR	ENST00000447222	p.R397L	c.1190	0.024281477	5.364	1
1695 POR	ENST00000447222	p.P421L	c.1262	0.024281477	0	1
1696 PDK3	ENST00000441463	p.R378H	c.1133	0.011595396	6.582	1
1696 PDK3	ENST00000441463	p.K381N	c.1143	0.112031855	3.173	1
1696 PDK3	ENST00000441463	p.L66F	c.196	0.121312617	0	1
1697 AIM2	ENST00000368130	p.A58V	c.173	0.005182989	7.592	1
1697 AIM2	ENST00000368130	p.E7K	c.19	0.005182989	0	1
1698 PAX5	ENST00000358127	p.H62N	c.184	1.029708097	0	1
1698 PAX5	ENST00000358127	p.H62Q	c.186	1.029708097	0	1
1698 PAX5	ENST00000358127	p.L23P	c.68	0.059416194	5.073	1
1699 MBTD1	ENST00000415868	p.F364I	c.1090	0.095589767	3.387	1
1699 MBTD1	ENST00000415868	p.M289I	c.867	0.095589767	0	1
1700 GLB1	ENST00000445488	p.F362V	c.1084	0.108597218	0	1
1700 GLB1	ENST00000445488	p.L636I	c.1906	0.085002354	3.593	1
1700 GLB1	ENST00000445488	p.R638C	c.1912	0.023767062	6.218	1
1700 GLB1	ENST00000445488	p.D149G	c.446	0.013311902	6.346	1
1701 SPOP	ENST00000503676	p.D201H	c.601	0.017181502	5.863	1
1701 SPOP	ENST00000503676	p.K238E	c.712	0.017181502	0	1
1702 MALT1	ENST00000348428	p.S382L	c.1145	0.040484996	5.124	1
1702 MALT1	ENST00000348428	p.M612I	c.1836	0.020819051	6.642	1
1702 MALT1	ENST00000348428	p.K677E	c.2029	0.039905874	5.493	1
1702 MALT1	ENST00000348428	p.I712V	c.2134	0.060893684	0	1
1703 IL3RA	ENST00000331035	p.T209N	c.626	0.01023463	7.716	1
1703 IL3RA	ENST00000331035	p.P210A	c.628	0.038086824	4.94	1
1703 IL3RA	ENST00000331035	p.T267M	c.800	0.073722533	3.808	1
1703 IL3RA	ENST00000331035	p.P288L	c.863	0.108729813	0	1
1704 CBLB	ENST00000264122	p.D340G	c.1019	0.010753872	6.539	1
1704 CBLB	ENST00000264122	p.H257Y	c.769	0.010753872	0	1
1705 API5	ENST00000531273	p.R382Q	c.1145	0.007763915	0	1
1705 API5	ENST00000531273	p.I425M	c.1275	0.007763915	7.009	1
1706 CKM	ENST00000221476	p.V72M	c.214	0.067841145	0	1
1706 CKM	ENST00000221476	p.R96H	c.287	0.058766509	4.758	1
1706 CKM	ENST00000221476	p.A31V	c.92	0.032025311	5.017	1
1707 MSH6	ENST00000234420	p.M868T	c.2603	1.008875229	0	1

1707	MSH6	ENST00000234420	p.M868I	c.2604	1.008875229	0	1
1707	MSH6	ENST00000234420	p.S1049F	c.3146	0.017750457	6.816	1
1708	BACE1	ENST00000313005	p.F60L	c.178	0.17134396	9.628	1
1708	BACE1	ENST00000313005	p.R68T	c.203	0.112407132	9.85	1
1708	BACE1	ENST00000313005	p.V77M	c.229	0.101121592	3.523	1
1708	BACE1	ENST00000313005	p.M79V	c.235	0.103812165	3.482	1
1708	BACE1	ENST00000313005	p.I148V	c.442	0.251783205	0	1
1708	BACE1	ENST00000313005	p.SNWEG174in_frame_del	c.534_520	0.119729626	3.777	1
1709	GGA1	ENST00000381756	p.E39K	c.115	0.155923246	2.857	1
1709	GGA1	ENST00000381756	p.G43R	c.127	0.04946432	4.524	1
1709	GGA1	ENST00000381756	p.M91I	c.273	0.068069706	9.25	1
1709	GGA1	ENST00000381756	p.R97W	c.289	0.183132293	0	1
1710	GABBR1	ENST00000377034	p.G85S	c.253	0.398044049	2.329	1
1710	GABBR1	ENST00000377034	p.S321L	c.962	1.199022025	0	2
1711	NRP1	ENST00000374867	p.A344T	c.1030	1.026078415	0	1
1711	NRP1	ENST00000374867	p.A344V	c.1031	1.026078415	0	1
1711	NRP1	ENST00000374867	p.M417I	c.1251	0.086164406	5.261	1
1712	TSTA3	ENST00000425753	p.V91M	c.271	0.22770736	0	1
1712	TSTA3	ENST00000425753	p.M93I	c.279	0.022180627	9.902	1
1712	TSTA3	ENST00000425753	p.I150S	c.449	0.139465899	3.086	1
1712	TSTA3	ENST00000425753	p.F165L	c.495	0.024796287	6.039	1
1712	TSTA3	ENST00000425753	p.A167T	c.499	0.112033564	3.416	1
1713	CFH	ENST00000367429	p.P213S	c.637	0.08169472	3.646	1
1713	CFH	ENST00000367429	p.I216V	c.646	0.042854341	5.461	1
1713	CFH	ENST00000367429	p.P260S	c.778	0.102583789	0	1
1714	SMS	ENST00000404933	p.V69M	c.205	0.018897499	7.024	1
1714	SMS	ENST00000404933	p.R107W	c.319	0.125368418	0	1
1714	SMS	ENST00000404933	p.K151N	c.453	0.117684808	3.087	1
1715	GLMN	ENST00000370360	p.L478F	c.1434	0.006638164	0	1
1715	GLMN	ENST00000370360	p.E502K	c.1504	0.006638164	7.235	1
1716	MR1	ENST00000367580	p.R63W	c.187	0.08663418	9.779	1
1716	MR1	ENST00000367580	p.Q92R	c.275	0.099954492	6.231	1
1716	MR1	ENST00000367580	p.F95L	c.285	0.099903002	3.539	1
1716	MR1	ENST00000367580	p.A135V	c.404	0.020938969	6.928	1
1716	MR1	ENST00000367580	p.R31C	c.91	0.108694676	0	1
1717	ACP5	ENST00000412435	p.Q248E	c.742	0.079660039	0	1
1717	ACP5	ENST00000412435	p.R280H	c.839	0.079660039	3.65	1
1718	MAPKAPK3	ENST00000446044	p.V39G	c.116	0.153786418	0	1
1718	MAPKAPK3	ENST00000446044	p.N106D	c.316	0.153786418	2.701	1
1719	PRKCA	ENST00000413366	p.R161Q	c.482	0.040735362	5.017	1
1719	PRKCA	ENST00000413366	p.L183I	c.547	0.045676327	0	1
1719	PRKCA	ENST00000413366	p.G257V	c.770	0.018594468	6.079	1
1721	ACSM2A	ENST00000424070	p.W54C	c.162	0.115594241	9.681	1
1722	MGAM	ENST00000475668	p.D1837N	c.5509	1.026875461	6.86	1
1722	MGAM	ENST00000475668	p.F2632S	c.7895	0.367857418	3.036	1
1722	MGAM	ENST00000475668	p.E2696K	c.8086	2.1391367	0	3
1722	MGAM	ENST00000475668	p.D2733H	c.8197	1.026875461	6.86	1
1723	ACVRL1	ENST00000550683	p.R425Q	c.1274	1.01328111	0	2
1723	ACVRL1	ENST00000550683	p.P466H	c.1397	0.044148569	7.227	1

1723 ACVRL1	ENST00000550683	p.L469R	c.1406_1407	0.035171734	7.242	1
1724 PTPN4	ENST00000263708	p.A707V	c.2120	0.086389513	0	1
1724 PTPN4	ENST00000263708	p.M740I	c.2220	0.086389513	3.533	1
1725 H2AFY	ENST00000510038	p.M366I	c.1098	0.068726009	0	1
1725 H2AFY	ENST00000510038	p.S187F	c.560	0.068726009	3.863	1
1726 CD180	ENST00000256447	p.S163F	c.488	0.020861692	0	1
1726 CD180	ENST00000256447	p.A184D	c.551	0.020861692	5.583	1
1727 C6	ENST00000263413	p.V664G	c.1991	0.022158438	5.496	1
1727 C6	ENST00000263413	p.G690W	c.2068	0.022158438	0	1
1728 CPA2	ENST00000222481	p.H179N	c.535	0.044379006	5.254	1
1728 CPA2	ENST00000222481	p.R181Q	c.542	0.035231263	4.827	1
1728 CPA2	ENST00000222481	p.H306Y	c.916	0.061436519	0	1
1729 TGM3	ENST00000381458	p.R397S	c.1189	0.092043524	6.188	1
1729 TGM3	ENST00000381458	p.I524V	c.1570	0.245026695	3.821	1
1729 TGM3	ENST00000381458	p.G528C	c.1582	0.204013111	3.068	1
1729 TGM3	ENST00000381458	p.K565R	c.1694	0.080687546	8.427	1
1729 TGM3	ENST00000381458	p.R571Q	c.1712	0.344895416	0	1
1729 TGM3	ENST00000381458	p.D589V	c.1766	0.159204222	7.025	1
1729 TGM3	ENST00000381458	p.G317R	c.949	0.01971983	6.527	1
1729 TGM3	ENST00000381458	p.P319T	c.955	0.12349502	3.51	1
1729 TGM3	ENST00000381458	p.V327I	c.979	0.176515204	4.967	1
1730 DNM1	ENST00000372923	p.A734V	c.2201	0.014548357	6.103	1
1730 DNM1	ENST00000372923	p.G24S	c.70	0.014548357	0	1
1731 GUSB	ENST00000304895	p.R357Q	c.1070	0.033585912	4.896	1
1731 GUSB	ENST00000304895	p.P80S	c.238	0.033585912	0	1
1732 TCN1	ENST00000257264	p.S92L	c.275	0.139757731	2.839	1
1732 TCN1	ENST00000257264	p.D150E	c.450	0.139757731	0	1
1733 ITSN1	ENST00000381285	p.N1284T	c.3851	0.009355302	6.74	1
1733 ITSN1	ENST00000381285	p.R1335P	c.4004	0.009355302	0	1
1734 TIMP3	ENST00000266085	p.H83Y	c.247	0.160968536	6.772	1
1734 TIMP3	ENST00000266085	p.E85D	c.255	0.061581458	7.344	1
1734 TIMP3	ENST00000266085	p.R107C	c.319	2.016486004	0	2
1734 TIMP3	ENST00000266085	p.R107H	c.320	2.016486004	0	1
1734 TIMP3	ENST00000266085	p.T115M	c.344	0.167218276	9.726	1
1735 F5	ENST00000367796	p.L86I	c.256	0.036498981	4.776	1
1735 F5	ENST00000367796	p.L110F	c.330	0.043722972	6.818	1
1735 F5	ENST00000367796	p.G185R	c.553	0.045361915	0	1
1736 IRAK4	ENST00000448290	p.Y262H	c.784	0.022483337	0	1
1736 IRAK4	ENST00000448290	p.F330V	c.988	0.022483337	5.475	1
1737 PTPRE	ENST00000419012	p.A652S	c.1954	1.006310631	0	2
1737 PTPRE	ENST00000419012	p.F689C	c.2066	0.105018914	7.308	1
1738 CYP17A1	ENST00000369887	p.R462W	c.1384	0.013611784	0	1
1738 CYP17A1	ENST00000369887	p.M156I	c.468	0.013611784	6.199	1
1739 RPL4	ENST00000307961	p.R143C	c.427	1.125347054	0	1
1739 RPL4	ENST00000307961	p.R143H	c.428	1.125347054	0	1
1739 RPL4	ENST00000307961	p.D179H	c.535	0.250694109	2.996	1
1740 ZWILCH	ENST00000307897	p.L182I	c.544	0.083794537	3.577	1
1740 ZWILCH	ENST00000307897	p.D235N	c.703	0.083794537	0	1
1741 FTL	ENST00000331825	p.E89Q	c.265	0.003426615	8.189	1

1741 FTL	ENST00000331825	p.Q26K	c.76	0.003426615	0	1
1742 ACVR2B	ENST00000352511	p.V336M	c.1006	0.007345111	7.089	1
1742 ACVR2B	ENST00000352511	p.A266T	c.796	0.007345111	0	1
1743 ITGA5	ENST00000293379	p.V335I	c.1003	1.025266516	0	2
1743 ITGA5	ENST00000293379	p.L381F	c.1141	0.018493408	7.236	1
1743 ITGA5	ENST00000293379	p.P429H	c.1286	0.042492182	5.746	1
1744 ZFYVE9	ENST00000371591	p.T966A	c.2896	0.012421645	6.331	1
1744 ZFYVE9	ENST00000371591	p.F996C	c.2987	0.012421645	0	1
1745 GPHN	ENST00000543237	p.R119W	c.355	1.169099151	0	1
1745 GPHN	ENST00000543237	p.R119Q	c.356	1.169099151	0	1
1745 GPHN	ENST00000543237	p.I148M	c.444	0.316259067	2.723	1
1745 GPHN	ENST00000543237	p.A185V	c.554	0.048621039	5.825	1
1746 DNAJB9	ENST00000249356	p.S36A	c.106	1.150621539	0	1
1746 DNAJB9	ENST00000249356	p.S36L	c.107	1.150621539	0	1
1746 DNAJB9	ENST00000249356	p.R83Q	c.248	0.301243079	2.731	1
1747 SERPINA10	ENST00000261994	p.R88L	c.263	1.079604842	0	1
1747 SERPINA10	ENST00000261994	p.R88Q	c.263	1.079604842	0	1
1747 SERPINA10	ENST00000261994	p.D314N	c.940	0.159209684	3.651	1
1748 CDC25C	ENST00000513970	p.G339R	c.1015	0.035548561	4.901	1
1748 CDC25C	ENST00000513970	p.C433F	c.1298	0.095581032	0	1
1748 CDC25C	ENST00000513970	p.R331H	c.992	0.064190166	4.009	1
1749 SCARB2	ENST00000264896	p.F66L	c.198	0.127707484	3.079	1
1749 SCARB2	ENST00000264896	p.R134T	c.401	0.20048069	0	1
1749 SCARB2	ENST00000264896	p.H171D	c.511	0.002976845	8.392	1
1749 SCARB2	ENST00000264896	p.E175K	c.523	0.088532921	3.659	1
1750 IFNG	ENST00000229135	p.K35N	c.105	0.013999826	9.578	1
1750 IFNG	ENST00000229135	p.F38C	c.113	0.268760041	0	1
1750 IFNG	ENST00000229135	p.L51I	c.151	0.037282624	9.239	1
1750 IFNG	ENST00000229135	p.L79P	c.236	0.176353318	3.767	1
1750 IFNG	ENST00000229135	p.Q129K	c.385	0.203863859	3.486	1
1750 IFNG	ENST00000229135	p.R130C	c.388	0.161796114	3.278	1
1751 RRP9	ENST00000232888	p.A287D	c.860	0.076415017	0	1
1751 RRP9	ENST00000232888	p.D328N	c.982	0.076415017	3.71	1
1752 CAP1	ENST00000372805	p.S434F	c.1301	0.009303569	0	1
1752 CAP1	ENST00000372805	p.F457L	c.1371	0.009303569	6.748	1
1753 GNAI3	ENST00000369851	p.M119T	c.356	0.015549371	0	1
1753 GNAI3	ENST00000369851	p.Q164P	c.491	0.015549371	6.007	1
1754 CNNM4	ENST00000377075	p.R387H	c.1160	0.01076879	6.537	1
1754 CNNM4	ENST00000377075	p.K439E	c.1315	0.01076879	0	1
1755 SH3GL3	ENST00000324537	p.E64K	c.190	0.06758659	3.909	1
1755 SH3GL3	ENST00000324537	p.Q67K	c.199	0.016299569	6.032	1
1755 SH3GL3	ENST00000324537	p.T97M	c.290	0.081851504	0	1
1756 CAPN2	ENST00000295006	p.N384S	c.1151	0.030005961	5.885	1
1756 CAPN2	ENST00000295006	p.D513N	c.1537	0.13895392	2.99	1
1756 CAPN2	ENST00000295006	p.R628W	c.1882	0.142790929	0	1
1757 FAP	ENST00000188790	p.P216T	c.646	0.11258869	0	1
1757 FAP	ENST00000188790	p.T300I	c.899	0.095098384	3.422	1
1757 FAP	ENST00000188790	p.R303L	c.908	0.029273651	5.696	1
1758 TMPRSS15	ENST00000284885	p.P906Q	c.2717	0.140444572	3.925	1

1758	TMPRSS15	ENST00000284885	p.Q942K	c.2824	0.012216713	7.355	1
1758	TMPRSS15	ENST00000284885	p.M945K	c.2834	0.179231223	3.618	1
1758	TMPRSS15	ENST00000284885	p.D965N	c.2893	0.155823391	4.27	1
1758	TMPRSS15	ENST00000284885	p.K994R	c.2981	0.046153182	9.078	1
1758	TMPRSS15	ENST00000284885	p.R1000H	c.2999	1.207072922	0	2
1759	GNAI1	ENST00000351004	p.S44F	c.131	0.022297102	5.487	1
1759	GNAI1	ENST00000351004	p.A326V	c.977	0.022297102	0	1
1760	PTPRN	ENST00000295718	p.L481P	c.1442	0.069975806	3.837	1
1760	PTPRN	ENST00000295718	p.P512T	c.1534	0.069975806	0	1
1761	TOP3A	ENST00000321105	p.T377M	c.1130	0.023997035	0	1
1761	TOP3A	ENST00000321105	p.G401C	c.1201	0.023997035	5.381	1
1762	HDAC1	ENST00000373548	p.R34Q	c.101	0.077858588	3.683	1
1762	HDAC1	ENST00000373548	p.V308I	c.922	0.077858588	0	1
1763	P2RY14	ENST00000309170	p.R119S	c.357	0.02584448	5.274	1
1763	P2RY14	ENST00000309170	p.K229N	c.687	0.02584448	0	1
1764	POLG2	ENST00000539111	p.V118L	c.352	0.012779449	7.021	1
1764	POLG2	ENST00000539111	p.V119A	c.356	0.01127288	6.471	1
1764	POLG2	ENST00000539111	p.L208H	c.623	0.018972485	0	1
1765	ADAMTS5	ENST00000284987	p.D369E	c.1107	0.125086673	0	1
1765	ADAMTS5	ENST00000284987	p.E398D	c.1194	0.125086673	2.999	1
1767	SAMHD1	ENST00000262878	p.A202T	c.604	0.007432174	7.072	1
1767	SAMHD1	ENST00000262878	p.S302Y	c.905	0.007432174	0	1
1768	PDE2A	ENST00000334456	p.Y632H	c.1894	0.167821563	0	1
1768	PDE2A	ENST00000334456	p.H748Y	c.2242	0.167821563	2.575	1
1769	CTNND1	ENST00000428599	p.K408N	c.1224	0.121194234	0	1
1769	CTNND1	ENST00000428599	p.R461Q	c.1382	0.085438266	3.871	1
1769	CTNND1	ENST00000428599	p.A463D	c.1388	0.056460234	4.242	1
1770	LANCL1	ENST00000443314	p.G216R	c.646	0.13925989	3.919	1
1770	LANCL1	ENST00000443314	p.P263L	c.788	1.066109435	0	2
1771	ETFA	ENST00000557943	p.L77M	c.229	0.099995016	3.322	1
1771	ETFA	ENST00000557943	p.T99A	c.295	0.107375852	0	1
1771	ETFA	ENST00000557943	p.T191I	c.572	0.099970824	7.082	1
1772	ITGAM	ENST00000544665	p.G337C	c.1009	0.01979116	5.659	1
1772	ITGAM	ENST00000544665	p.Q146E	c.436	0.031665573	0	1
1772	ITGAM	ENST00000544665	p.S183P	c.547	0.01859126	6.396	1
1773	CDKN2A	ENST00000361570	p.G166R	c.496	0.11211102	3.157	1
1774	NTRK3	ENST00000360948	p.H370N	c.1108	0.358126599	3.456	1
1774	NTRK3	ENST00000360948	p.K397N	c.1191	1.106631905	0	2
1774	NTRK3	ENST00000360948	p.E398K	c.1192	0.201176901	6.011	1
1775	EBF3	ENST00000355311	p.E350K	c.1048	0.049659575	0	1
1775	EBF3	ENST00000355311	p.E372K	c.1114	0.020095273	5.637	1
1775	EBF3	ENST00000355311	p.Y413N	c.1237	0.029564301	5.08	1
1776	ANG	ENST00000397990	p.R119Q	c.356	0.063022028	3.988	1
1776	ANG	ENST00000397990	p.P147S	c.439	0.063022028	0	1
1777	ACADS	ENST00000242592	p.G113R	c.337	0.015625	6	1
1777	ACADS	ENST00000242592	p.G274S	c.820	0.019403423	0	1
1777	ACADS	ENST00000242592	p.A331T	c.991	0.018681991	8.048	1
1778	FH	ENST00000366560	p.R87H	c.260	0.144852972	2.894	1
1778	FH	ENST00000366560	p.T90I	c.269	0.087056437	3.704	1

1778 FH	ENST00000366560	p.N133S	c.398	0.211263496	0	1
1779 TCEA1	ENST00000521604	p.R190T	c.569	0.07465876	7.88	1
1779 TCEA1	ENST00000521604	p.R194K	c.581	0.198040621	0	1
1779 TCEA1	ENST00000521604	p.R222S	c.666	0.138749947	4.052	1
1779 TCEA1	ENST00000521604	p.M223L	c.667	0.141557035	2.905	1
1780 TNFAIP8L2	ENST00000368910	p.V38M	c.112	0.106655417	0	1
1780 TNFAIP8L2	ENST00000368910	p.K170N	c.510	0.028854629	5.226	1
1780 TNFAIP8L2	ENST00000368910	p.G174E	c.521	0.08207241	3.645	1
1781 LIFR	ENST00000263409	p.P70T	c.208	0.015614173	6.001	1
1781 LIFR	ENST00000263409	p.F125L	c.375	0.015614173	0	1
1782 DDI1	ENST00000302259	p.I298F	c.892	0.270564768	4.023	1
1782 DDI1	ENST00000302259	p.S319P	c.955	1.069735874	0	1
1782 DDI1	ENST00000302259	p.S319C	c.956	1.069735874	0	1
1782 DDI1	ENST00000302259	p.I320V	c.958	0.258606607	7.303	1
1782 DDI1	ENST00000302259	p.E322K	c.964	0.205400358	9.046	1
1783 GAK	ENST00000314167	p.E85K	c.253	0.045531222	4.457	1
1783 GAK	ENST00000314167	p.C190F	c.569	0.045531222	0	1
1784 MEF2A	ENST00000338042	p.L38F	c.112	0.141905263	0	1
1784 MEF2A	ENST00000338042	p.I11V	c.31	0.141905263	2.817	1
1785 LTA4H	ENST00000228740	p.L366R	c.1097	0.021492841	5.54	1
1785 LTA4H	ENST00000228740	p.A447T	c.1339	0.021492841	0	1
1786 HDAC6	ENST00000334136	p.H1115R	c.3344	0.08820474	3.503	1
1786 HDAC6	ENST00000334136	p.P1171L	c.3512	0.08820474	0	1
1787 INPPL1	ENST00000541756	p.A259V	c.776	0.226537602	3.744	1
1787 INPPL1	ENST00000541756	p.V283I	c.847	1.097750629	0	1
1787 INPPL1	ENST00000541756	p.V283A	c.848	1.097750629	0	1
1787 INPPL1	ENST00000541756	p.V304I	c.910	0.123498063	5.435	1
1788 TPI1	ENST00000229270	p.A39V	c.116	0.098212341	3.488	1
1788 TPI1	ENST00000229270	p.V199I	c.595	0.118404404	5.313	1
1788 TPI1	ENST00000229270	p.T213N	c.638	0.159711615	3.703	1
1788 TPI1	ENST00000229270	p.R243C	c.727	0.1514479	7.524	1
1788 TPI1	ENST00000229270	p.I244V	c.730	0.196501618	0	1
1789 MTAP	ENST00000580900	p.F113L	c.339	0.056150514	0	1
1789 MTAP	ENST00000580900	p.V170I	c.508	0.029400816	5.088	1
1789 MTAP	ENST00000580900	p.S178N	c.533	0.01979116	5.659	1
1789 MTAP	ENST00000580900	p.P200S	c.598	0.025360457	7.167	1
1790 PTPRC	ENST00000442510	p.A745V	c.2234	0.082109875	7.235	1
1790 PTPRC	ENST00000442510	p.V747L	c.2239	1.200926301	0	1
1790 PTPRC	ENST00000442510	p.V747A	c.2240	1.200926301	0	1
1790 PTPRC	ENST00000442510	p.S842I	c.2525	0.187849907	3.551	1
1790 PTPRC	ENST00000442510	p.V850A	c.2549	0.292167446	3.198	1
1791 NEDD4	ENST00000508342	p.W846F	c.2538_2537	0.190080382	0	1
1791 NEDD4	ENST00000508342	p.W868S	c.2603	0.04599358	6.11	1
1791 NEDD4	ENST00000508342	p.P871S	c.2611	0.167321974	2.618	1
1791 NEDD4	ENST00000508342	p.P876S	c.2626	0.01477927	6.298	1
1792 UAP1	ENST00000367925	p.R447H	c.1340	0.083607135	0	1
1792 UAP1	ENST00000367925	p.I483M	c.1449	0.036071419	4.793	1
1792 UAP1	ENST00000367925	p.S484F	c.1451	0.023051429	5.439	1
1792 UAP1	ENST00000367925	p.D500G	c.1499	0.024484287	5.352	1

1793 MUT	ENST00000274813	p.P419H	c.1256	0.09964906	3.327	1
1793 MUT	ENST00000274813	p.T101A	c.301	0.09964906	0	1
1794 IFIT1	ENST00000371804	p.Y106C	c.317	0.09349286	3.419	1
1794 IFIT1	ENST00000371804	p.L14M	c.40	0.09668779	0	1
1794 IFIT1	ENST00000371804	p.R135K	c.404	0.010606526	8.29	1
1795 GFRA3	ENST00000274721	p.T170I	c.509	0.003637089	0	1
1795 GFRA3	ENST00000274721	p.F203L	c.609	0.003637089	8.103	1
1796 PTPRK	ENST00000368207	p.F1076L	c.3228	0.095193046	3.393	1
1796 PTPRK	ENST00000368207	p.S1103T	c.3307	0.095193046	0	1
1797 PTPRZ1	ENST00000393386	p.I95L	c.283	1.030449949	0	2
1797 PTPRZ1	ENST00000393386	p.A195V	c.584	0.022639721	6.465	1
1797 PTPRZ1	ENST00000393386	p.G207W	c.619	0.018632951	6.746	1
1797 PTPRZ1	ENST00000393386	p.F263V	c.787	0.046338133	6.671	1
1798 CD300A	ENST00000360141	p.I61T	c.182	0.003685306	8.084	1
1798 CD300A	ENST00000360141	p.T89I	c.266	0.003685306	0	1
1799 GNPDA1	ENST00000311337	p.C118Y	c.353	0.083446769	0	1
1799 GNPDA1	ENST00000311337	p.R158C	c.472	0.083446769	3.583	1
1800 SERPINE1	ENST00000223095	p.T238A	c.712	0.33920137	0	1
1800 SERPINE1	ENST00000223095	p.H26R	c.77	0.238833694	2.865	1
1800 SERPINE1	ENST00000223095	p.A272V	c.815	0.220112922	2.382	1
1800 SERPINE1	ENST00000223095	p.R294C	c.880	0.113702588	6.63	1
1801 UGDH	ENST00000316423	p.R346K	c.1037	0.238575963	0	1
1801 UGDH	ENST00000316423	p.Y14C	c.41	0.136623436	3.119	1
1801 UGDH	ENST00000316423	p.V270G	c.809	0.02737288	5.979	1
1801 UGDH	ENST00000316423	p.S275N	c.824	0.129020211	3.216	1
1802 REG1A	ENST00000233735	p.C47F	c.140	0.133384702	5.941	1
1802 REG1A	ENST00000233735	p.E80K	c.238	1.17770941	0	1
1802 REG1A	ENST00000233735	p.EG80DC	c.240_241	1.17770941	0	1
1802 REG1A	ENST00000233735	p.K163N	c.489	0.423694557	2.631	1
1803 SENP2	ENST00000296257	p.D364N	c.1090	0.052884912	0	1
1803 SENP2	ENST00000296257	p.F575L	c.1723	0.052884912	4.241	1
1804 SMURF2	ENST00000262435	p.P35L	c.104	0.267386772	1.903	1
1804 SMURF2	ENST00000262435	p.P59L	c.176	0.267386772	0	1
1805 CLK3	ENST00000395066	p.T428I	c.1283	0.186715283	4.838	1
1805 CLK3	ENST00000395066	p.A472V	c.1415	0.206263484	8.072	1
1805 CLK3	ENST00000395066	p.D475G	c.1424	1.184776902	0	1
1805 CLK3	ENST00000395066	p.D475E	c.1425	1.184776902	0	1
1805 CLK3	ENST00000395066	p.R262H	c.785	1.170602364	3.775	2
1806 SLC4A1	ENST00000262418	p.L121P	c.362	0.03724008	4.747	1
1806 SLC4A1	ENST00000262418	p.R304P	c.911	0.03724008	0	1
1807 ESRRG	ENST00000360012	p.A221P	c.661	0.092818715	6.684	1
1807 ESRRG	ENST00000360012	p.I256V	c.766	0.120511154	0	1
1807 ESRRG	ENST00000360012	p.I285M	c.855	0.09429297	3.422	1
1807 ESRRG	ENST00000360012	p.I287V	c.859	0.018619918	6.552	1
1807 ESRRG	ENST00000360012	p.G289R	c.865	0.00682952	7.194	1
1808 PLA2G4A	ENST00000367466	p.F107V	c.319	0.008132981	6.942	1
1808 PLA2G4A	ENST00000367466	p.E116A	c.347	0.007269138	7.104	1
1808 PLA2G4A	ENST00000367466	p.T21M	c.62	0.015402119	0	1
1809 APAF1	ENST00000551964	p.R434H	c.1301	0.014264365	6.312	1

1809	APAF1	ENST00000551964	p.R205Q	c.614	0.153492621	0	1
1809	APAF1	ENST00000551964	p.R228C	c.682	0.136012272	2.907	1
1809	APAF1	ENST00000551964	p.R233C	c.697	0.008594083	7.043	1
1810	PTPRR	ENST00000283228	p.T465M	c.1394	0.055207191	4.179	1
1810	PTPRR	ENST00000283228	p.R627K	c.1880	0.055207191	0	1
1811	LTF	ENST00000231751	p.R361H	c.1082	0.142793281	3.808	1
1811	LTF	ENST00000231751	p.R627C	c.1879	1.07139664	0	2
1812	CETP	ENST00000200676	p.G251S	c.751	0.012216713	6.355	1
1812	CETP	ENST00000200676	p.F287V	c.859	0.012216713	0	1
1813	CUL4A	ENST00000375440	p.E342K	c.1024	0.013602353	6.2	1
1813	CUL4A	ENST00000375440	p.D308N	c.922	0.013602353	0	1
1814	DCK	ENST00000504952	p.E87D	c.261	0.014900321	6.226	1
1814	DCK	ENST00000504952	p.E90K	c.268	0.116883723	3.116	1
1814	DCK	ENST00000504952	p.A138E	c.413	0.128702221	0	1
1815	UGT2B7	ENST00000305231	p.R369I	c.1106	0.036651092	4.77	1
1815	UGT2B7	ENST00000305231	p.F371C	c.1112	0.020249078	5.626	1
1815	UGT2B7	ENST00000305231	p.G410E	c.1229	0.005652089	7.467	1
1815	UGT2B7	ENST00000305231	p.V432L	c.1294	0.062552259	0	1
1816	FECH	ENST00000382873	p.L95F	c.283	0.177109255	3.607	1
1816	FECH	ENST00000382873	p.R121Q	c.362	1.083050023	0	2
1816	FECH	ENST00000382873	p.V172A	c.515	0.130517103	9.995	1
1817	ATIC	ENST00000236959	p.L384F	c.1150	0.06506385	0	1
1817	ATIC	ENST00000236959	p.L244S	c.731	0.06506385	3.942	1
1818	CDH1	ENST00000261769	p.P260H	c.779	0.053144827	4.381	1
1818	CDH1	ENST00000261769	p.E261K	c.781	0.112471436	3.22	1
1818	CDH1	ENST00000261769	p.A286V	c.857	0.15531475	0	1
1819	UBA52	ENST00000430157	p.R42G	c.124	0.116688278	3.196	1
1819	UBA52	ENST00000430157	p.V5L	c.13	0.014746337	7.122	1
1819	UBA52	ENST00000430157	p.L71S	c.212	0.122459332	0	1
1819	UBA52	ENST00000430157	p.I13V	c.37	0.006159376	7.343	1
1820	THBS1	ENST00000260356	p.A81D	c.242	0.047530586	4.395	1
1820	THBS1	ENST00000260356	p.N28S	c.83	0.047530586	0	1
1821	C1S	ENST00000328916	p.I530N	c.1589	0.015409886	7.02	1
1821	C1S	ENST00000328916	p.K669N	c.2007	1.007704943	0	2
1822	AK5	ENST00000354567	p.G462S	c.1384	1.0254181	0	1
1822	AK5	ENST00000354567	p.G462V	c.1385	1.0254181	0	1
1822	AK5	ENST00000354567	p.A515T	c.1543	0.060217477	5.298	1
1823	LRP6	ENST00000261349	p.R644Q	c.1931	0.009585039	6.705	1
1823	LRP6	ENST00000261349	p.I645L	c.1933	0.080059609	3.676	1
1823	LRP6	ENST00000261349	p.S646Y	c.1937	0.02511468	5.424	1
1823	LRP6	ENST00000261349	p.Q870K	c.2608	0.111114667	0	1
1824	P2RY2	ENST00000393597	p.C106S	c.316	0.078617811	3.669	1
1824	P2RY2	ENST00000393597	p.R177H	c.530	0.078617811	0	1
1825	E2F1	ENST00000343380	p.V246A	c.737	0.001748096	9.16	1
1825	E2F1	ENST00000343380	p.R252C	c.754	0.058801632	4.088	1
1825	E2F1	ENST00000343380	p.P299H	c.896	0.060549728	0	1
1826	NAMPT	ENST00000222553	p.G355E	c.1064	0.01536722	6.024	1
1826	NAMPT	ENST00000222553	p.K423R	c.1268	0.01536722	0	1
1827	IMPDH2	ENST00000326739	p.P69S	c.205	0.036524289	4.775	1

1827 IMPDH2	ENST00000326739	p.H93R	c.278	0.036524289	0	1
1828 FGG	ENST00000407946	p.Q345H	c.1035	0.504269138	2.829	1
1828 FGG	ENST00000407946	p.N371S	c.1112	0.097913265	8.794	1
1828 FGG	ENST00000407946	p.W242C	c.726	0.126666678	6.377	1
1828 FGG	ENST00000407946	p.G263E	c.788	0.136370591	6.52	1
1828 FGG	ENST00000407946	p.R309C	c.925	1.171693855	0	1
1828 FGG	ENST00000407946	p.R309G	c.925	1.171693855	0	1
1828 FGG	ENST00000407946	p.L310I	c.928	0.059352557	7.434	1
1829 HNF4G	ENST00000396423	p.Q338L	c.1013	0.192203669	0	1
1829 HNF4G	ENST00000396423	p.R251L	c.752	0.062894687	4.176	1
1829 HNF4G	ENST00000396423	p.R255H	c.764	0.144454136	2.869	1
1830 CDYL	ENST00000328908	p.T353A	c.1057	0.280650954	0	1
1830 CDYL	ENST00000328908	p.H354R	c.1061	0.035385599	8.705	1
1830 CDYL	ENST00000328908	p.D386N	c.1156	0.01030265	6.818	1
1830 CDYL	ENST00000328908	p.S387R	c.1161	0.191839	2.622	1
1830 CDYL	ENST00000328908	p.V390L	c.1167_1168	0.146728041	3.225	1
1831 EEF1A1	ENST00000316292	p.H7R	c.20	0.322402229	6.795	1
1831 EEF1A1	ENST00000316292	p.R240H	c.719	0.363561107	5.079	1
1831 EEF1A1	ENST00000316292	p.E268K	c.802	1.038590163	0	1
1831 EEF1A1	ENST00000316292	p.E268Q	c.802	1.038590163	0	1
1832 PTPRJ	ENST00000418331	p.R1223C	c.3667	0.106579361	3.23	1
1832 PTPRJ	ENST00000418331	p.Y1257C	c.3770	0.106579361	0	1
1833 KEAP1	ENST00000171111	p.D422N	c.1264	2.155761209	2.408	2
1833 KEAP1	ENST00000171111	p.R470C	c.1408	5.510898304	0	5
1833 KEAP1	ENST00000171111	p.R470H	c.1409	5.510898304	0	1
1833 KEAP1	ENST00000171111	p.E493D	c.1479	0.854907517	2.899	1
1834 KMT2C	ENST00000355193	p.V390M	c.1168	0.037468691	8.561	1
1834 KMT2C	ENST00000355193	p.N393K	c.1179	1.084945715	0	2
1834 KMT2C	ENST00000355193	p.H414Y	c.1240	0.196768993	3.603	1
1835 PSAT1	ENST00000376588	p.C80Y	c.239	1.0171577	0	2
1835 PSAT1	ENST00000376588	p.K110Q	c.328	0.0343154	5.865	1
1836 MET	ENST00000318493	p.V1088E	c.3263	1.099146805	0	2
1836 MET	ENST00000318493	p.T1114S	c.3341	0.145127428	3.797	1
1836 MET	ENST00000318493	p.N1118D	c.3352	0.019901211	6.651	1
1836 MET	ENST00000318493	p.R1166Q	c.3497	0.035747456	5.857	1
1837 F10	ENST00000375559	p.L343P	c.1028	0.064177617	0	1
1837 F10	ENST00000375559	p.A457D	c.1370	0.02295576	5.445	1
1837 F10	ENST00000375559	p.D463E	c.1389	0.017074652	5.872	1
1837 F10	ENST00000375559	p.N221S	c.662	0.024147205	5.372	1
1838 CYP1A1	ENST00000567032	p.K38E	c.112	1.009404582	0	1
1838 CYP1A1	ENST00000567032	p.K38N	c.114	1.009404582	0	1
1838 CYP1A1	ENST00000567032	p.S395R	c.1183	0.044155089	7.199	1
1838 CYP1A1	ENST00000567032	p.R136H	c.407	0.035740684	8.588	1
1839 NAGA	ENST00000396398	p.S353F	c.1058	0.013084476	0	1
1839 NAGA	ENST00000396398	p.E383Q	c.1147	0.013084476	6.256	1
1840 MGAM	ENST00000475668	p.A1017T	c.3049	0.073149915	3.773	1
1840 MGAM	ENST00000475668	p.R1039C	c.3115	0.073149915	0	1
1841 DPYS	ENST00000351513	p.F425V	c.1273	0.015250496	6.035	1
1841 DPYS	ENST00000351513	p.A292V	c.875	0.015250496	0	1

1842	SERPINB2	ENST00000457692	p.F350L	c.1050	0.092383409	4.047	1
1842	SERPINB2	ENST00000457692	p.R380K	c.1139	0.179710156	0	1
1842	SERPINB2	ENST00000457692	p.T381A	c.1141	0.052182308	7.567	1
1842	SERPINB2	ENST00000457692	p.T194I	c.581	0.026603136	9.364	1
1842	SERPINB2	ENST00000457692	p.R238H	c.713	0.166132187	3.153	1
1843	PKLR	ENST00000342741	p.G263E	c.788	0.05739436	5.669	1
1843	PKLR	ENST00000342741	p.R289L	c.866	1.098928915	0	1
1843	PKLR	ENST00000342741	p.R289Q	c.866	1.098928915	0	1
1843	PKLR	ENST00000342741	p.D324N	c.970	0.160107021	3.657	1
1844	CBLB	ENST00000264122	p.E942Q	c.2824	0.006574058	0	1
1844	CBLB	ENST00000264122	p.E969K	c.2905	0.006574058	7.249	1
1845	LGR4	ENST00000379214	p.P283H	c.848	0.02812506	7.152	1
1845	LGR4	ENST00000379214	p.R304C	c.910	3.028479459	0	3
1845	LGR4	ENST00000379214	p.R304H	c.911	3.028479459	0	1
1845	LGR4	ENST00000379214	p.G328S	c.982	0.085792777	5.543	1
1847	DNMT3A	ENST00000321117	p.Y359C	c.1076	0.075519192	3.777	1
1847	DNMT3A	ENST00000321117	p.Q374L	c.1121	0.0146298	7.174	1
1847	DNMT3A	ENST00000321117	p.I407T	c.1220	0.079872238	0	1
1848	SI	ENST00000264382	p.G125A	c.374	2.136419187	0	1
1848	SI	ENST00000264382	p.G125E	c.374	2.136419187	0	2
1848	SI	ENST00000264382	p.V126A	c.377	1.198362781	6.353	2
1848	SI	ENST00000264382	p.E127K	c.379	0.046898821	8.523	1
1848	SI	ENST00000264382	p.T150N	c.449	0.572301846	3.484	1
1848	SI	ENST00000264382	p.R159G	c.475	2.033603871	7.239	1
1848	SI	ENST00000264382	p.R159W	c.475	2.033603871	7.239	2
1849	PECR	ENST00000265322	p.D276Y	c.826	0.163006342	0	1
1849	PECR	ENST00000265322	p.K298N	c.894	0.163006342	2.617	1
1850	AOC3	ENST00000308423	p.G392C	c.1174	0.01065002	6.553	1
1850	AOC3	ENST00000308423	p.S464F	c.1391	0.01065002	0	1
1851	CAPN7	ENST00000253693	p.I716T	c.2147	0.032486857	4.944	1
1851	CAPN7	ENST00000253693	p.P786S	c.2356	0.032486857	0	1
1852	TOP2A	ENST00000423485	p.E922D	c.2766	0.093363341	0	1
1852	TOP2A	ENST00000423485	p.F968L	c.2902	0.093363341	3.421	1
1853	CD80	ENST00000264246	p.E177G	c.530	0.015549371	0	1
1853	CD80	ENST00000264246	p.T210S	c.629	0.015549371	6.007	1
1854	LAMTOR5	ENST00000256644	p.I100T	c.299	0.084964265	3.557	1
1854	LAMTOR5	ENST00000256644	p.H169N	c.505	0.084964265	0	1
1855	TARBP1	ENST00000040877	p.G1488W	c.4462	0.068393356	3.87	1
1855	TARBP1	ENST00000040877	p.Q1589H	c.4767	0.068393356	0	1
1856	NAE1	ENST00000359087	p.P446S	c.1336	0.018238003	0	1
1856	NAE1	ENST00000359087	p.E484G	c.1451	0.009665097	6.693	1
1856	NAE1	ENST00000359087	p.A491T	c.1471	0.008572906	6.866	1
1857	HAO1	ENST00000378789	p.H87Y	c.259	0.099294969	0	1
1857	HAO1	ENST00000378789	p.A322V	c.965	0.042708136	4.632	1
1857	HAO1	ENST00000378789	p.Q324H	c.972	0.061342949	4.084	1
1858	VEGFA	ENST00000372055	p.R335C	c.1003	0.120976017	3.374	1
1858	VEGFA	ENST00000372055	p.E248Q	c.742	0.045024268	4.606	1
1858	VEGFA	ENST00000372055	p.P291L	c.872	0.022543364	8.978	1
1858	VEGFA	ENST00000372055	p.H292Y	c.874	0.139501636	0	1

1859 FGG	ENST00000407946	p.Q145P	c.434	0.010459807	0	1
1859 FGG	ENST00000407946	p.D331N	c.991	0.010459807	6.579	1
1860 ANPEP	ENST00000300060	p.R631Q	c.1892	0.017725867	0	1
1860 ANPEP	ENST00000300060	p.A665T	c.1993	0.017725867	5.818	1
1861 LIG3	ENST00000378526	p.D717E	c.2151	0.100272646	3.318	1
1861 LIG3	ENST00000378526	p.L822P	c.2465	0.100272646	0	1
1862 RPS20	ENST00000519807	p.L61F	c.183	0.002716566	8.524	1
1862 RPS20	ENST00000519807	p.H85R	c.254	0.012108075	0	1
1862 RPS20	ENST00000519807	p.E111K	c.331	0.008602895	7.127	1
1862 RPS20	ENST00000519807	p.S31F	c.92	0.003686065	8.804	1
1863 ROS1	ENST00000368508	p.L2155F	c.6465	0.02419747	0	1
1863 ROS1	ENST00000368508	p.R2184I	c.6551	0.02419747	5.369	1
1864 TLR5	ENST00000366881	p.R392L	c.1175	0.022266213	0	1
1864 TLR5	ENST00000366881	p.N413D	c.1237	0.022266213	5.489	1
1865 ALDH3A1	ENST00000444455	p.A233T	c.697	0.011461979	0	1
1865 ALDH3A1	ENST00000444455	p.K265Q	c.793	0.011461979	6.447	1
1866 PEA15	ENST00000368076	p.R106S	c.316	0.001139013	9.778	1
1866 PEA15	ENST00000368076	p.G26R	c.76	0.001139013	0	1
1867 CTSV	ENST00000259470	p.S247F	c.740	0.03020936	8.897	1
1867 CTSV	ENST00000259470	p.V248I	c.742	0.150107666	0	1
1867 CTSV	ENST00000259470	p.C323R	c.967	0.148971252	3.045	1
1867 CTSV	ENST00000259470	p.A326T	c.976	0.040900493	5.219	1
1868 AURKA	ENST00000395909	p.K227N	c.681	0.158219574	2.66	1
1868 AURKA	ENST00000395909	p.L323F	c.969	0.158219574	0	1
1869 CD8A	ENST00000352580	p.E37K	c.109	0.160094983	3.643	1
1869 CD8A	ENST00000352580	p.D104N	c.310	1.080047491	0	1
1869 CD8A	ENST00000352580	p.D104Y	c.310	1.080047491	0	1
1870 GEMIN7	ENST00000270257	p.R63W	c.187	0.007790869	7.004	1
1870 GEMIN7	ENST00000270257	p.D96N	c.286	0.007790869	0	1
1871 FSCN1	ENST00000382361	p.A35V	c.104	0.020221026	0	1
1871 FSCN1	ENST00000382361	p.R118H	c.353	0.020221026	5.628	1
1872 IKBKB	ENST00000520810	p.A422T	c.1264	0.039418044	4.665	1
1872 IKBKB	ENST00000520810	p.T583N	c.1748	0.039418044	0	1
1873 UPF1	ENST00000599848	p.D396H	c.1186	0.014288517	0	1
1873 UPF1	ENST00000599848	p.T548M	c.1643	0.014288517	6.129	1
1874 XDH	ENST00000379416	p.G738S	c.2212	0.06886553	8.222	1
1874 XDH	ENST00000379416	p.P1003S	c.3007	0.008178205	6.934	1
1874 XDH	ENST00000379416	p.V1201A	c.3602	0.0807824	3.741	1
1874 XDH	ENST00000379416	p.G1203S	c.3607	0.032646922	5.108	1
1874 XDH	ENST00000379416	p.G1205S	c.3613	0.128803476	4.29	1
1874 XDH	ENST00000379416	p.P1264S	c.3790	0.166432815	0	1
1875 PYGM	ENST00000164139	p.E191K	c.571	1.155070912	0	1
1875 PYGM	ENST00000164139	p.E191Q	c.571	1.155070912	0	1
1875 PYGM	ENST00000164139	p.T229M	c.686	1.155070912	3.689	2
1876 ERCC1	ENST00000013807	p.V112I	c.334	0.269060031	1.894	1
1876 ERCC1	ENST00000013807	p.F140I	c.418	0.269060031	0	1
1877 PGR	ENST00000325455	p.E723K	c.2167	1.134846284	0	2
1877 PGR	ENST00000325455	p.E907K	c.2719	0.204281131	3.316	1
1877 PGR	ENST00000325455	p.S910F	c.2729	0.072326702	4.86	1

1878 PLA2G2A	ENST00000375111	p.T60M	c.179	0.126915147	3.017	1
1878 PLA2G2A	ENST00000375111	p.C63S	c.187	0.030735419	5.192	1
1878 PLA2G2A	ENST00000375111	p.Y125N	c.373	0.150891685	0	1
1879 SEMA4D	ENST00000438547	p.R190Q	c.569	0.185695867	9.697	1
1879 SEMA4D	ENST00000438547	p.P196H	c.587	1.008730276	0	1
1879 SEMA4D	ENST00000438547	p.P196L	c.587	1.008730276	0	1
1879 SEMA4D	ENST00000438547	p.D260N	c.778	0.190325039	7.054	1
1880 HAO1	ENST00000378789	p.R172C	c.514	1.036533103	0	2
1880 HAO1	ENST00000378789	p.D201Y	c.601	0.021898866	6.513	1
1880 HAO1	ENST00000378789	p.R28G	c.82	0.018363693	6.767	1
1880 HAO1	ENST00000378789	p.D33N	c.97	1.016401823	6.93	2
1881 CRYM	ENST00000219599	p.A144S	c.430	0.006470083	0	1
1881 CRYM	ENST00000219599	p.K171I	c.512	0.006470083	7.272	1
1882 CHIA	ENST00000369740	p.R40C	c.118	0.024684007	6.82	1
1882 CHIA	ENST00000369740	p.L76F	c.226	1.008850655	0	1
1882 CHIA	ENST00000369740	p.L76V	c.226	1.008850655	0	1
1883 PTK2B	ENST00000544172	p.P52S	c.154	0.222427869	0	1
1883 PTK2B	ENST00000544172	p.R79W	c.235	0.111108876	3.338	1
1883 PTK2B	ENST00000544172	p.R85Q	c.254	0.13575242	3.017	1
1884 ALDH4A1	ENST00000290597	p.E35K	c.103	0.154213396	2.697	1
1884 ALDH4A1	ENST00000290597	p.R171W	c.511	0.154213396	0	1
1885 ERBB3	ENST00000267101	p.H768R	c.2303	0.071992978	0	1
1885 ERBB3	ENST00000267101	p.K820N	c.2460	0.071992978	3.796	1
1886 HIBCH	ENST00000359678	p.D383E	c.1149	0.13057947	0	1
1886 HIBCH	ENST00000359678	p.R331W	c.991	0.13057947	2.937	1
1887 GSK3A	ENST00000222330	p.N171D	c.511	0.013668512	6.193	1
1887 GSK3A	ENST00000222330	p.C262R	c.784	0.013668512	0	1
1888 ERBB2	ENST00000269571	p.I767M	c.2301	0.026413894	9.142	1
1888 ERBB2	ENST00000269571	p.D769H	c.2305	3.030425839	8.938	1
1888 ERBB2	ENST00000269571	p.D769N	c.2305	3.030425839	8.938	1
1888 ERBB2	ENST00000269571	p.D769Y	c.2305	3.030425839	8.938	2
1888 ERBB2	ENST00000269571	p.V842I	c.2524	6.136144517	0	7
1888 ERBB2	ENST00000269571	p.R868W	c.2602	0.962170401	2.986	1
1889 PTPRC	ENST00000442510	p.Y792C	c.2375	0.016412028	7.198	1
1889 PTPRC	ENST00000442510	p.W1027R	c.3079	0.070491311	0	1
1889 PTPRC	ENST00000442510	p.K1151N	c.3453	0.0636807	3.973	1
1890 F5	ENST00000367796	p.R2107C	c.6319	1.032849153	0	2
1890 F5	ENST00000367796	p.L2219P	c.6656	0.065698307	4.928	1
1891 NAT2	ENST00000286479	p.W67R	c.199	0.007520269	0	1
1891 NAT2	ENST00000286479	p.T211M	c.632	0.007520269	7.055	1
1892 DLD	ENST00000205402	p.H149Y	c.445	0.043821926	6.782	1
1892 DLD	ENST00000205402	p.G170D	c.509	1.009086875	0	2
1893 PIK3C3	ENST00000262039	p.E562K	c.1684	0.005132936	7.606	1
1893 PIK3C3	ENST00000262039	p.R566H	c.1697	0.050695447	4.302	1
1893 PIK3C3	ENST00000262039	p.L694I	c.2080	0.055828383	0	1
1894 NXF1	ENST00000532297	p.M216I	c.648	0.014568539	0	1
1894 NXF1	ENST00000532297	p.V245I	c.733	0.014568539	6.101	1
1895 CUL5	ENST00000531427	p.V526A	c.1577	0.016097718	0	1
1895 CUL5	ENST00000531427	p.V558I	c.1672	0.016097718	5.957	1

1896 RPS6KA3	ENST00000379565	p.E233K	c.697	0.17115694	3.374	1
1896 RPS6KA3	ENST00000379565	p.V256L	c.766	0.190501074	0	1
1896 RPS6KA3	ENST00000379565	p.T276A	c.826	0.072636909	7.29	1
1896 RPS6KA3	ENST00000379565	p.F303L	c.909	0.096111083	3.512	1
1897 KIT	ENST00000288135	p.M552L	c.1654	0.023494018	0	1
1897 KIT	ENST00000288135	p.L631F	c.1893	0.009957505	6.65	1
1897 KIT	ENST00000288135	p.K826N	c.2478	0.013536513	6.207	1
1898 FGD5	ENST00000285046	p.L900R	c.2699	0.014915953	6.067	1
1898 FGD5	ENST00000285046	p.L967P	c.2900	0.014915953	0	1
1899 EPN1	ENST00000411543	p.K218N	c.654	0.180992272	2.466	1
1899 EPN1	ENST00000411543	p.K239N	c.717	0.180992272	0	1
1900 AGO1	ENST00000373204	p.A455T	c.1363	0.0854854	3.606	1
1900 AGO1	ENST00000373204	p.P456L	c.1367_1368	0.044251489	4.612	1
1900 AGO1	ENST00000373204	p.Y492D	c.1474	0.123020041	0	1
1901 KCNU1	ENST00000399881	p.G481A	c.1442	0.053437636	0	1
1901 KCNU1	ENST00000399881	p.N733K	c.2199	0.053437636	4.226	1
1902 ANK1	ENST00000396942	p.G1415D	c.4244	0.16747295	2.578	1
1902 ANK1	ENST00000396942	p.S1447C	c.4339	0.16747295	0	1
1903 KDR	ENST00000263923	p.I1077L	c.3229	0.150493965	0	1
1903 KDR	ENST00000263923	p.S1104F	c.3311	0.02886979	5.284	1
1903 KDR	ENST00000263923	p.G1108W	c.3322	0.077594286	3.797	1
1903 KDR	ENST00000263923	p.F1115C	c.3344	0.058046958	4.241	1
1904 ANKRD27	ENST00000306065	p.A770T	c.2308	1.017615631	0	2
1904 ANKRD27	ENST00000306065	p.S799L	c.2396	0.063244841	5.827	1
1905 CDYL	ENST00000328908	p.S455C	c.1364	0.114228931	0	1
1905 CDYL	ENST00000328908	p.D483N	c.1447	0.114228931	3.13	1
1906 JAK1	ENST00000342505	p.L932R	c.2795	0.137762122	0	1
1906 JAK1	ENST00000342505	p.Y933F	c.2798	0.035894745	8.647	1
1906 JAK1	ENST00000342505	p.R997W	c.2989	0.112611719	3.743	1
1906 JAK1	ENST00000342505	p.Y999H	c.2995	0.072672524	4.045	1
1907 LCN2	ENST00000373017	p.C96Y	c.287	0.161208531	0	1
1907 LCN2	ENST00000373017	p.L27M	c.79	0.161208531	2.633	1
1908 IGF2R	ENST00000356956	p.V1584M	c.4750	1.011414409	0	1
1908 IGF2R	ENST00000356956	p.V1584A	c.4751	1.011414409	0	1
1908 IGF2R	ENST00000356956	p.C1614Y	c.4841	0.022828818	6.453	1
1909 AHCY	ENST00000217426	p.H384Y	c.1150	0.025033434	5.32	1
1909 AHCY	ENST00000217426	p.P427L	c.1280	0.01949165	5.681	1
1909 AHCY	ENST00000217426	p.Y165H	c.493_492	0.044525083	0	1
1910 IVD	ENST00000487418	p.A338T	c.1012	0.004123257	0	1
1910 IVD	ENST00000487418	p.N43T	c.128	0.004123257	7.922	1
1911 TOP2B	ENST00000264331	p.R748Q	c.2243	0.142299254	3.813	1
1911 TOP2B	ENST00000264331	p.Y862H	c.2584	1.082046062	0	1
1911 TOP2B	ENST00000264331	p.Y862C	c.2585	1.082046062	0	1
1911 TOP2B	ENST00000264331	p.F1043L	c.3129	0.02179287	6.52	1
1912 PTPRM	ENST00000400060	p.E1003A	c.3008	0.0217476	5.523	1
1912 PTPRM	ENST00000400060	p.K1037N	c.3111	0.007515058	7.056	1
1912 PTPRM	ENST00000400060	p.R1065G	c.3193	0.029262658	0	1
1913 ASL	ENST00000304874	p.M339V	c.1015	0.035896824	5.8	1
1913 ASL	ENST00000304874	p.S247L	c.740	1.03954579	0	2

1913 ASL	ENST00000304874	p.R306W	c.916	1.028896811	6.533	1
1913 ASL	ENST00000304874	p.R306L	c.917	1.028896811	6.533	1
1914 XPO1	ENST00000404992	p.E361K	c.1081	0.204743354	0	1
1914 XPO1	ENST00000404992	p.K492R	c.1475	0.037623658	4.962	1
1914 XPO1	ENST00000404992	p.R305Q	c.914	0.178198916	2.534	1
1915 MTOR	ENST00000361445	p.E1799K	c.5395	3.064578575	6.748	4
1915 MTOR	ENST00000361445	p.F1888I	c.5662	4.037214277	0	1
1915 MTOR	ENST00000361445	p.F1888V	c.5662	4.037214277	0	1
1915 MTOR	ENST00000361445	p.F1888L	c.5664	4.037214277	0	3
1916 DIRAS1	ENST00000323469	p.G79C	c.235	1.038360414	0	2
1916 DIRAS1	ENST00000323469	p.V10M	c.28	0.043134917	5.535	1
1916 DIRAS1	ENST00000323469	p.R170C	c.508	1.016792956	6.896	1
1916 DIRAS1	ENST00000323469	p.R170H	c.509	1.016792956	6.896	1
1917 CD300A	ENST00000360141	p.Y38N	c.112	0.011393402	7.749	1
1917 CD300A	ENST00000360141	p.P53L	c.158	0.007520269	7.055	1
1917 CD300A	ENST00000360141	p.P116L	c.347_348	0.01216883	0	1
1918 MYO10	ENST00000513610	p.F1958I	c.5872	0.038419965	5.702	1
1918 MYO10	ENST00000513610	p.R1985C	c.5953	1.019209982	0	1
1918 MYO10	ENST00000513610	p.R1985H	c.5954	1.019209982	0	1
1919 GAPDHS	ENST00000222286	p.N81K	c.243	0.103664943	0	1
1919 GAPDHS	ENST00000222286	p.T170R	c.509	0.103664943	3.27	1
1920 IGBP1	ENST00000342206	p.N111H	c.331	0.008513688	6.876	1
1920 IGBP1	ENST00000342206	p.I208F	c.622	0.008513688	0	1
1921 PTPN13	ENST00000436978	p.L2252I	c.6754	0.051467564	4.388	1
1921 PTPN13	ENST00000436978	p.P2253L	c.6758	0.081295016	3.688	1
1921 PTPN13	ENST00000436978	p.R2452I	c.7355	0.125350984	0	1
1922 C8A	ENST00000361249	p.S379F	c.1136	0.096646429	0	1
1922 C8A	ENST00000361249	p.F402C	c.1205	0.070690575	3.862	1
1922 C8A	ENST00000361249	p.G405V	c.1214	0.029789678	5.165	1
1923 CFB	ENST00000556679	p.A803T	c.2407	0.013936383	0	1
1923 CFB	ENST00000556679	p.R1107Q	c.3320	0.013936383	6.165	1
1924 CUL4B	ENST00000404115	p.L490F	c.1468	0.015009295	7.058	1
1924 CUL4B	ENST00000404115	p.A543D	c.1628	1.007504647	0	1
1924 CUL4B	ENST00000404115	p.A543V	c.1628	1.007504647	0	1
1925 LEPR	ENST00000349533	p.C447Y	c.1340	0.004209895	7.892	1
1925 LEPR	ENST00000349533	p.Q491H	c.1473	0.004209895	0	1
1926 MAD1L1	ENST00000406869	p.D661N	c.1981	0.009881871	6.661	1
1926 MAD1L1	ENST00000406869	p.R714H	c.2141	0.009881871	0	1
1927 MITD1	ENST00000289359	p.H89Y	c.265	0.109688266	3.358	1
1927 MITD1	ENST00000289359	p.M204T	c.611	0.136811487	3.004	1
1927 MITD1	ENST00000289359	p.F241L	c.723	0.222184591	0	1
1928 ERBB3	ENST00000267101	p.R103H	c.308	0.093060151	9.351	1
1928 ERBB3	ENST00000267101	p.V104L	c.310	10.15556263	0	2
1928 ERBB3	ENST00000267101	p.V104M	c.310	10.15556263	0	9
1928 ERBB3	ENST00000267101	p.A232V	c.695	0.113788891	6.595	1
1928 ERBB3	ENST00000267101	p.A245V	c.734	1.811592518	3.799	2
1929 DOC2A	ENST00000564944	p.E193K	c.577	0.132954084	2.911	1
1929 DOC2A	ENST00000564944	p.E214K	c.640	0.132954084	0	1
1930 NRP2	ENST00000360409	p.S349F	c.1046	0.008484233	6.881	1

1930 NRP2	ENST00000360409	p.G317C	c.949	0.008484233	0	1
1931 PNLIP	ENST00000369221	p.N401K	c.1203	0.018971795	5.72	1
1931 PNLIP	ENST00000369221	p.T309N	c.926	0.018971795	0	1
1932 FKBP4	ENST00000001008	p.R152C	c.454	0.007114608	7.135	1
1932 FKBP4	ENST00000001008	p.R186W	c.556	0.007625248	7.035	1
1932 FKBP4	ENST00000001008	p.E246G	c.737	0.014739836	0	1
1933 CAPN2	ENST00000295006	p.A101V	c.302	0.100551046	0	1
1933 CAPN2	ENST00000295006	p.L166I	c.496	0.100551046	3.314	1
1934 KIF11	ENST00000260731	p.F144I	c.430	0.13406051	2.921	1
1934 KIF11	ENST00000260731	p.N206S	c.617	0.147371001	0	1
1934 KIF11	ENST00000260731	p.V256I	c.766	0.017360105	6.027	1
1935 PARP1	ENST00000366794	p.F553L	c.1659	0.459405367	3.007	1
1935 PARP1	ENST00000366794	p.W584S	c.1751	0.202891459	8.738	1
1935 PARP1	ENST00000366794	p.H613R	c.1838	0.335229633	6.13	1
1935 PARP1	ENST00000366794	p.M615I	c.1845	0.114173833	6.748	1
1935 PARP1	ENST00000366794	p.A625T	c.1873	1.150319221	0	2
1936 CPA4	ENST00000222482	p.E414K	c.1240	0.158905387	0	1
1936 CPA4	ENST00000222482	p.E329D	c.987	0.149731848	2.755	1
1936 CPA4	ENST00000222482	p.E330K	c.988	0.012364042	6.537	1
1937 FECH	ENST00000382873	p.D103Y	c.307	0.157562924	2.666	1
1937 FECH	ENST00000382873	p.N210S	c.629	0.157562924	0	1
1938 EIF4E2	ENST00000258416	p.F62Y	c.185	0.080651669	3.833	1
1938 EIF4E2	ENST00000258416	p.L115I	c.343	0.219543989	0	1
1938 EIF4E2	ENST00000258416	p.A169V	c.506	0.15985548	2.743	1
1939 HMGCR	ENST00000287936	p.R590C	c.1768	0.108988142	0	1
1939 HMGCR	ENST00000287936	p.V683I	c.2047	0.100900134	3.309	1
1939 HMGCR	ENST00000287936	p.A751T	c.2251	0.026337498	6.95	1
1940 POFUT2	ENST00000349485	p.V139F	c.415	0.065563515	0	1
1940 POFUT2	ENST00000349485	p.V190I	c.568	0.065013743	4.029	1
1940 POFUT2	ENST00000349485	p.E221Q	c.661	0.010954674	7.859	1
1941 AP1S1	ENST00000337619	p.A41P	c.121	0.030531941	0	1
1941 AP1S1	ENST00000337619	p.F8C	c.23	0.004723264	7.726	1
1941 AP1S1	ENST00000337619	p.R10W	c.28	0.025808677	5.276	1
1942 DDX58	ENST00000379883	p.H786Y	c.2356	0.018211581	5.779	1
1942 DDX58	ENST00000379883	p.R866Q	c.2597	0.018211581	0	1
1943 UBE2G1	ENST00000396981	p.R37Q	c.110	0.13860008	0	1
1943 UBE2G1	ENST00000396981	p.H58Y	c.172	0.13860008	2.851	1
1944 HDC	ENST00000267845	p.E426K	c.1276	1.011573748	0	2
1944 HDC	ENST00000267845	p.L466F	c.1396	0.031036179	6.433	1
1945 RPL27	ENST00000589913	p.S70F	c.209	0.012904339	0	1
1945 RPL27	ENST00000589913	p.E113G	c.338	0.012904339	6.276	1
1946 PRKCB	ENST00000303531	p.D494N	c.1480	0.008425628	0	1
1946 PRKCB	ENST00000303531	p.Y518N	c.1552	0.008425628	6.891	1
1947 KDM1A	ENST00000542151	p.L646V	c.1936	0.092129049	0	1
1947 KDM1A	ENST00000542151	p.G824E	c.2471	0.028156848	6.394	1
1947 KDM1A	ENST00000542151	p.L231V	c.691	0.049392926	9.635	1
1947 KDM1A	ENST00000542151	p.V301G	c.902	0.075759588	4.376	1
1947 KDM1A	ENST00000542151	p.G310C	c.928	0.058589853	5.02	1
1948 INIP	ENST00000374242	p.A71T	c.211	0.004117545	0	1

1948 INIP	ENST00000374242	p.L95R	c.284	0.004117545	7.924	1
1949 CFH	ENST00000367429	p.E359K	c.1075	0.028517672	5.132	1
1949 CFH	ENST00000367429	p.P364T	c.1090	0.013792234	6.18	1
1949 CFH	ENST00000367429	p.E433K	c.1297	0.042309906	0	1
1950 PPIC	ENST00000306442	p.L58F	c.172	0.020336807	7.502	1
1950 PPIC	ENST00000306442	p.P204H	c.611	1.005516619	0	1
1950 PPIC	ENST00000306442	p.P204L	c.611	1.005516619	0	1
1951 BTRC	ENST00000370187	p.R419Q	c.1256	0.011990204	0	1
1951 BTRC	ENST00000370187	p.T455A	c.1363	0.011990204	6.382	1
1952 ACTN4	ENST00000252699	p.L126Q	c.377	0.065244495	0	1
1952 ACTN4	ENST00000252699	p.T148I	c.443	0.065244495	3.938	1
1953 NCAM2	ENST00000400546	p.S515F	c.1544	1.018925051	0	2
1953 NCAM2	ENST00000400546	p.V532L	c.1594	0.377062574	8.718	1
1953 NCAM2	ENST00000400546	p.V569L	c.1705	0.209422006	5.917	1
1954 ROCK1	ENST00000399799	p.R403C	c.1207	3.086967704	0	3
1954 ROCK1	ENST00000399799	p.R403H	c.1208	3.086967704	0	1
1954 ROCK1	ENST00000399799	p.A129T	c.385	0.30333839	3.721	1
1954 ROCK1	ENST00000399799	p.N26T	c.77	0.044532425	6.489	1
1955 GUCA1C	ENST00000261047	p.E87Q	c.259	0.030290236	6.855	1
1955 GUCA1C	ENST00000261047	p.E133K	c.397	0.043554661	8.799	1
1955 GUCA1C	ENST00000261047	p.K141N	c.423	1.077762829	0	2
1955 GUCA1C	ENST00000261047	p.D164Y	c.490	0.154008203	4.121	1
1955 GUCA1C	ENST00000261047	p.V169F	c.505	0.106678295	6.732	1
1956 RAD1	ENST00000382038	p.A40V	c.119	0.008668512	0	1
1956 RAD1	ENST00000382038	p.E140K	c.418	0.008668512	6.85	1
1957 CPA2	ENST00000222481	p.M411T	c.1232	0.060120466	4.056	1
1957 CPA2	ENST00000222481	p.T207I	c.620	0.060120466	0	1
1958 GAD1	ENST00000358196	p.D447N	c.1339	0.058760888	4.089	1
1958 GAD1	ENST00000358196	p.E217G	c.650	0.058760888	0	1
1959 NR1H2	ENST00000593926	p.Y334C	c.1001	0.00889987	0	1
1959 NR1H2	ENST00000593926	p.R266C	c.796	0.00889987	6.812	1
1960 HTR1B	ENST00000369947	p.T243M	c.728	1.23158845	3.119	2
1960 HTR1B	ENST00000369947	p.N245K	c.735	0.026777726	6.38	1
1960 HTR1B	ENST00000369947	p.R310C	c.928	1.242213262	0	1
1960 HTR1B	ENST00000369947	p.R310H	c.929	1.242213262	0	1
1961 SNAP25	ENST00000304886	p.R191T	c.572	0.021732531	0	1
1962 TREX2	ENST00000334497	p.V99I	c.295	0.082772531	0	1
1962 TREX2	ENST00000334497	p.S124N	c.371	0.015562171	6.101	1
1962 TREX2	ENST00000334497	p.L128P	c.383	0.069197625	3.874	1
1963 PRKCQ	ENST00000263125	p.K451T	c.1352	0.067541137	9.495	1
1963 PRKCQ	ENST00000263125	p.E452K	c.1354	0.089273923	0	1
1963 PRKCQ	ENST00000263125	p.A678V	c.2033	0.068341716	3.901	1
1963 PRKCQ	ENST00000263125	p.M686V	c.2056	0.088506198	5.577	1
1964 GRB14	ENST00000263915	p.H242Y	c.724	0.103313616	0	1
1964 GRB14	ENST00000263915	p.G299R	c.895	0.005104552	7.614	1
1964 GRB14	ENST00000263915	p.P301L	c.902	0.098209065	3.348	1
1965 TERF1	ENST00000276603	p.L175S	c.524	0.041320456	0	1
1965 TERF1	ENST00000276603	p.H230Q	c.690	0.041320456	4.597	1
1966 CCS	ENST00000533244	p.H130N	c.388	0.244361223	0	1

1966 CCS	ENST00000533244	p.G135R	c.403	0.225100187	7.727	1
1966 CCS	ENST00000533244	p.S197T	c.590	0.159039926	3.84	1
1966 CCS	ENST00000533244	p.D205Y	c.613	0.181668748	2.558	1
1967 IGF2BP1	ENST00000290341	p.Q409H	c.1227	0.032841507	7.231	1
1967 IGF2BP1	ENST00000290341	p.R452C	c.1354	3.006656594	0	3
1967 IGF2BP1	ENST00000290341	p.R452G	c.1354	3.006656594	0	1
1968 ADH1A	ENST00000209668	p.V77A	c.230	0.015030116	7.056	1
1968 ADH1A	ENST00000209668	p.L124M	c.370	0.174226213	6.157	1
1968 ADH1A	ENST00000209668	p.D154V	c.461	1.023577743	0	2
1968 ADH1A	ENST00000209668	p.E155K	c.463	0.150296073	8.931	1
1970 PARN	ENST00000437198	p.Y384H	c.1150	0.011179504	6.483	1
1970 PARN	ENST00000437198	p.D28H	c.82	0.014918846	0	1
1970 PARN	ENST00000437198	p.V293A	c.878	0.003739342	8.063	1
1971 CD274	ENST00000381577	p.Q156H	c.468	0.005900284	7.405	1
1971 CD274	ENST00000381577	p.V225A	c.674	0.005900284	0	1
1972 GAS6	ENST00000357389	p.E374K	c.1120	0.129497845	3.949	1
1972 GAS6	ENST00000357389	p.V327M	c.979	1.064748923	0	2
1973 UBXN7	ENST00000296328	p.R451C	c.1351	0.084027187	3.573	1
1973 UBXN7	ENST00000296328	p.N489K	c.1467	0.084027187	0	1
1974 CXCL14	ENST00000337225	p.S40F	c.119	0.47467106	2.075	1
1974 CXCL14	ENST00000337225	p.R94C	c.280	1.23733553	0	1
1974 CXCL14	ENST00000337225	p.R94H	c.281	1.23733553	0	1
1975 EPHB4	ENST00000358173	p.S642C	c.1924	0.020263118	0	1
1975 EPHB4	ENST00000358173	p.R678H	c.2033	0.020263118	5.625	1
1976 A2M	ENST00000318602	p.F572L	c.1716	0.099718155	0	1
1976 A2M	ENST00000318602	p.S785P	c.2353	0.099718155	3.326	1
1977 SI	ENST00000264382	p.E613V	c.1838	0.137250504	0	1
1977 SI	ENST00000264382	p.L645F	c.1933	0.025875804	7.172	1
1977 SI	ENST00000264382	p.T732I	c.2195	0.066869278	3.997	1
1977 SI	ENST00000264382	p.L746V	c.2236	0.093994307	3.885	1
1978 GRM1	ENST00000282753	p.M41I	c.123	0.09030815	3.469	1
1978 GRM1	ENST00000282753	p.D87H	c.259	0.09030815	0	1
1979 ORM1	ENST00000259396	p.R51Q	c.152	0.126861531	0	1
1979 ORM1	ENST00000259396	p.K138N	c.414	0.099200702	3.377	1
1979 ORM1	ENST00000259396	p.R167H	c.500	0.033552939	5.03	1
1980 SRPK1	ENST00000361690	p.P498L	c.1493	0.021687386	5.527	1
1980 SRPK1	ENST00000361690	p.L188R	c.563	0.021687386	0	1
1981 FTH1	ENST00000273550	p.Y40H	c.118	0.104005558	7.303	1
1981 FTH1	ENST00000273550	p.E95D	c.285	0.33800236	3.52	1
1981 FTH1	ENST00000273550	p.A161T	c.481	1.100688004	0	1
1981 FTH1	ENST00000273550	p.A161V	c.482	1.100688004	0	1
1981 FTH1	ENST00000273550	p.A167V	c.500	0.102766867	7.121	1
1982 CAT	ENST00000241052	p.R127Q	c.380	0.034493486	6.425	1
1982 CAT	ENST00000241052	p.P206S	c.616	0.108448625	3.339	1
1982 CAT	ENST00000241052	p.L245F	c.733	0.110461745	0	1
1983 CLK3	ENST00000395066	p.I350V	c.1048	0.025665959	5.284	1
1983 CLK3	ENST00000395066	p.K457N	c.1371	0.025665959	0	1
1984 DPYSL5	ENST00000288699	p.R489P	c.1466	0.151669195	3.721	1
1984 DPYSL5	ENST00000288699	p.A291V	c.872	1.075834598	0	2

1985 PRIM1	ENST00000338193	p.F352L	c.1056	0.080214119	3.64	1
1985 PRIM1	ENST00000338193	p.M1I	c.3	0.080214119	0	1
1986 ACO1	ENST00000379923	p.A725V	c.2174	0.021838234	0	1
1986 ACO1	ENST00000379923	p.V752E	c.2255	0.021838234	5.517	1
1987 RNH1	ENST00000438658	p.G186D	c.557	0.060148729	6.592	1
1987 RNH1	ENST00000438658	p.K205R	c.614	0.167848242	2.768	1
1987 RNH1	ENST00000438658	p.S208I	c.623	0.200733719	2.911	1
1987 RNH1	ENST00000438658	p.S236I	c.707	0.290127808	0	1
1988 MB21D1	ENST00000370315	p.I386N	c.1157	0.009538645	6.712	1
1988 MB21D1	ENST00000370315	p.D408N	c.1222	0.012603777	6.31	1
1988 MB21D1	ENST00000370315	p.F442V	c.1324	0.022142422	0	1
1989 IRAK4	ENST00000448290	p.E194Q	c.580	0.006619785	0	1
1989 IRAK4	ENST00000448290	p.M218I	c.654	0.006619785	7.239	1
1990 SORCS2	ENST00000507866	p.P780S	c.2338	0.311133045	2.235	1
1990 SORCS2	ENST00000507866	p.R781Q	c.2342	0.226981207	2.991	1
1990 SORCS2	ENST00000507866	p.G809S	c.2425	0.161765977	6.031	1
1990 SORCS2	ENST00000507866	p.D861N	c.2581	0.353496316	0	1
1991 PTPRM	ENST00000400060	p.V120L	c.358	0.112476921	0	1
1991 PTPRM	ENST00000400060	p.S148I	c.443	0.033293439	6.486	1
1991 PTPRM	ENST00000400060	p.T149P	c.445	0.11096469	3.303	1
1992 ITGAV	ENST00000261023	p.D682N	c.2044	0.049897272	4.503	1
1992 ITGAV	ENST00000261023	p.G685R	c.2053	0.137191516	2.928	1
1992 ITGAV	ENST00000261023	p.R728C	c.2182	0.175498984	0	1
1993 MAPK8	ENST00000374189	p.R189C	c.565	2.232295897	0	1
1993 MAPK8	ENST00000374189	p.R189H	c.566	2.232295897	0	1
1993 MAPK8	ENST00000374189	p.R189L	c.566	2.232295897	0	1
1993 MAPK8	ENST00000374189	p.L198F	c.592	0.10164436	7.803	1
1993 MAPK8	ENST00000374189	p.G199D	c.596	0.075962782	8.23	1
1993 MAPK8	ENST00000374189	p.I231V	c.691	0.058230599	5.783	1
1994 GLUD1	ENST00000277865	p.D461E	c.1383	0.095169705	0	1
1994 GLUD1	ENST00000277865	p.R496M	c.1487	0.086269835	3.535	1
1994 GLUD1	ENST00000277865	p.R274H	c.821	0.016394121	6.812	1
1995 CYP7A1	ENST00000301645	p.E453K	c.1357	0.097395572	4.36	1
1995 CYP7A1	ENST00000301645	p.S286L	c.857	1.048697786	0	2
1996 NLRX1	ENST00000292199	p.R743H	c.2228	1.001992783	0	2
1996 NLRX1	ENST00000292199	p.P764H	c.2291	0.028065912	8.971	1
1997 C6	ENST00000263413	p.L345V	c.1033	0.113125808	0	1
1997 C6	ENST00000263413	p.K503T	c.1508	0.113125808	3.144	1
1998 PKLR	ENST00000342741	p.P414F	c.1241_1240	0.007720982	0	1
1998 PKLR	ENST00000342741	p.P96S	c.286	0.007720982	7.017	1
1999 GC	ENST00000504199	p.D269N	c.805	0.012595044	6.311	1
1999 GC	ENST00000504199	p.A274T	c.820	0.012841878	6.283	1
1999 GC	ENST00000504199	p.L304H	c.911	0.025436922	0	1
2000 EXOSC5	ENST00000221233	p.T52I	c.155	0.119559917	0	1
2000 EXOSC5	ENST00000221233	p.A136V	c.407	0.005284856	9.123	1
2000 EXOSC5	ENST00000221233	p.R29W	c.85	0.117766409	3.086	1
2001 UBE2V2	ENST00000518360	p.D46G	c.137	0.268556933	2.057	1
2001 UBE2V2	ENST00000518360	p.P78L	c.233	0.289857967	3.309	1
2002 F9	ENST00000218099	p.V419L	c.1255	0.180337843	0	1

2002 F9	ENST00000218099	p.G139S	c.415	0.07612716	3.841	1
2002 F9	ENST00000218099	p.E142D	c.426	0.011202775	6.48	1
2002 F9	ENST00000218099	p.Q143R	c.428	0.075634715	3.851	1
2002 F9	ENST00000218099	p.E159D	c.477	0.008425628	6.891	1
2002 F9	ENST00000218099	p.G179R	c.535	0.024635315	5.531	1
2003 IL21R	ENST00000395755	p.C35F	c.104	0.01770866	6.611	1
2003 IL21R	ENST00000395755	p.C81Y	c.242	0.137063173	0	1
2003 IL21R	ENST00000395755	p.V33I	c.97	0.13463257	2.979	1
2004 RHCG	ENST00000268122	p.T401A	c.1201	0.227282472	0	1
2004 RHCG	ENST00000268122	p.N165D	c.493	0.120643329	3.206	1
2004 RHCG	ENST00000268122	p.M182I	c.546	0.175279906	3.142	1
2004 RHCG	ENST00000268122	p.T295I	c.884	0.055353565	7.472	1
2005 C6	ENST00000263413	p.A500E	c.1499	0.082469244	0	1
2005 C6	ENST00000263413	p.D626N	c.1876	0.082469244	3.6	1
2006 HNRNPM	ENST00000325495	p.G203V	c.608	0.013129902	0	1
2006 HNRNPM	ENST00000325495	p.E280K	c.838	0.013129902	6.251	1
2007 TF	ENST00000402696	p.K61E	c.181	0.021436524	6.368	1
2007 TF	ENST00000402696	p.N129K	c.387	0.019024469	5.716	1
2007 TF	ENST00000402696	p.C246Y	c.737	0.031131593	0	1
2008 PKLR	ENST00000342741	p.K348N	c.1044	0.010679589	0	1
2008 PKLR	ENST00000342741	p.A423V	c.1268	0.010679589	6.549	1
2009 MAPK10	ENST00000359221	p.R258C	c.772	0.121581868	0	1
2009 MAPK10	ENST00000359221	p.F313L	c.939	0.121581868	3.04	1
2010 TLR4	ENST00000355622	p.Q423H	c.1269	0.060203868	4.054	1
2010 TLR4	ENST00000355622	p.N448H	c.1342	0.060203868	0	1
2011 CNDP1	ENST00000358821	p.G351E	c.1052	0.136313467	0	1
2011 CNDP1	ENST00000358821	p.K372Q	c.1114	0.136313467	2.875	1
2012 AKR1B1	ENST00000285930	p.M1I	c.3	0.21634401	0	1
2012 AKR1B1	ENST00000285930	p.R251Q	c.752	0.161574378	2.72	1
2012 AKR1B1	ENST00000285930	p.N257D	c.769	0.074369666	3.953	1
2013 CRYZ	ENST00000340866	p.G102V	c.305	0.029666941	6.075	1
2013 CRYZ	ENST00000340866	p.L327F	c.979	1.014833471	0	1
2013 CRYZ	ENST00000340866	p.L327I	c.979	1.014833471	0	1
2014 CTSG	ENST00000216336	p.R48T	c.143	0.568802614	1.814	1
2014 CTSG	ENST00000216336	p.D200N	c.598	1.284401307	0	2
2015 CTSF	ENST00000310325	p.G454S	c.1360	0.083968964	3.574	1
2015 CTSF	ENST00000310325	p.S480L	c.1439	0.00882615	6.824	1
2015 CTSF	ENST00000310325	p.V286L	c.856	0.092795114	0	1
2016 MRE11A	ENST00000407439	p.R367Q	c.1100	0.073312991	0	1
2016 MRE11A	ENST00000407439	p.H400Y	c.1198	0.065698307	3.928	1
2016 MRE11A	ENST00000407439	p.S276F	c.827	0.007614685	7.037	1
2017 IFNL3	ENST00000413851	p.L102P	c.305	0.158501759	0	1
2017 IFNL3	ENST00000413851	p.L133F	c.397	0.105248952	3.331	1
2017 IFNL3	ENST00000413851	p.R134Q	c.401	0.065004399	4.08	1
2018 TDRD3	ENST00000196169	p.E204K	c.610	0.003266587	0	1
2018 TDRD3	ENST00000196169	p.L230V	c.688	0.003266587	8.258	1
2019 ANXA6	ENST00000354546	p.R358H	c.1073	1.068109507	0	2
2019 ANXA6	ENST00000354546	p.R393C	c.1177	0.136219014	3.876	1
2020 ALDH4A1	ENST00000290597	p.S389C	c.1166	0.022421086	5.479	1

2020 ALDH4A1	ENST00000290597	p.V425M	c.1273	0.033169475	4.914	1
2020 ALDH4A1	ENST00000290597	p.P84S	c.250	0.055590562	0	1
2021 NCBP2	ENST00000321256	p.R109Q	c.326	0.035550163	4.814	1
2021 NCBP2	ENST00000321256	p.I110M	c.330	0.008071206	6.953	1
2021 NCBP2	ENST00000321256	p.R135W	c.403	0.04362137	0	1
2022 MAPK10	ENST00000359221	p.Q75H	c.225	0.144424141	0	1
2022 MAPK10	ENST00000359221	p.S96R	c.288	0.131430769	2.949	1
2022 MAPK10	ENST00000359221	p.R212S	c.636	0.038910404	6.066	1
2023 PON1	ENST00000542556	p.P95T	c.283	0.041868238	0	1
2023 PON1	ENST00000542556	p.L143S	c.428	0.041868238	4.578	1
2024 PCLO	ENST00000333891	p.P848S	c.2542	0.473392097	2.003	1
2024 PCLO	ENST00000333891	p.G886V	c.2657	0.491132204	0	1
2024 PCLO	ENST00000333891	p.A915S	c.2743	0.465562942	2.049	1
2025 APPL1	ENST00000288266	p.P567T	c.1699	0.010068552	6.634	1
2025 APPL1	ENST00000288266	p.R589Q	c.1766	0.010068552	0	1
2026 HMGCS2	ENST00000369406	p.S123F	c.368	0.103808753	3.268	1
2026 HMGCS2	ENST00000369406	p.G153C	c.457	0.007134361	7.131	1
2026 HMGCS2	ENST00000369406	p.R188H	c.563	0.110943114	0	1
2027 TOP2B	ENST00000264331	p.N576H	c.1726	0.006857983	7.188	1
2027 TOP2B	ENST00000264331	p.A669S	c.2005	0.008076803	6.952	1
2027 TOP2B	ENST00000264331	p.F719L	c.2157	0.014934785	0	1
2028 CASP9	ENST00000546424	p.V343M	c.1027	0.178951369	3.57	1
2028 CASP9	ENST00000546424	p.Y345C	c.1034	0.023395793	7.244	1
2028 CASP9	ENST00000546424	p.R180H	c.539	1.09079898	0	2
2029 CASP9	ENST00000546424	p.Q373H	c.1119	0.014833471	6.075	1
2029 CASP9	ENST00000546424	p.W374R	c.1120	0.005016859	7.639	1
2029 CASP9	ENST00000546424	p.R193H	c.578	0.019850329	0	1
2030 C6	ENST00000263413	p.Y184H	c.550	0.019011287	0	1
2030 C6	ENST00000263413	p.K219E	c.655	0.019011287	5.717	1
2031 IL12B	ENST00000231228	p.Q276E	c.826	0.086956505	0	1
2031 IL12B	ENST00000231228	p.V308M	c.922	0.051131767	4.343	1
2031 IL12B	ENST00000231228	p.R309W	c.925	0.039538251	4.73	1
2032 PTPN2	ENST00000309660	p.R114H	c.341	0.101040109	3.307	1
2032 PTPN2	ENST00000309660	p.R222H	c.665	0.101040109	0	1
2033 CNNM4	ENST00000377075	p.R407H	c.1220	0.0054369	7.523	1
2033 CNNM4	ENST00000377075	p.F451V	c.1351	0.025648175	5.285	1
2033 CNNM4	ENST00000377075	p.A473V	c.1418	0.031085075	0	1
2034 PNMT	ENST00000269582	p.A181V	c.542	0.033423346	4.903	1
2034 PNMT	ENST00000269582	p.L213in_frame_del	c.630_632	0.033423346	0	1
2035 CNOT1	ENST00000317147	p.P2162S	c.6484	0.01025165	0	1
2035 CNOT1	ENST00000317147	p.P2277T	c.6829	0.01025165	6.608	1
2036 PLAUR	ENST00000340093	p.E59K	c.175	0.019436799	6.441	1
2036 PLAUR	ENST00000340093	p.T108I	c.323	0.010117523	6.627	1
2036 PLAUR	ENST00000340093	p.R138H	c.413	0.021627271	0	1
2037 FLNB	ENST00000490882	p.A1656T	c.4966	0.026405825	5.243	1
2037 FLNB	ENST00000490882	p.T1682M	c.5045	0.010280113	6.604	1
2037 FLNB	ENST00000490882	p.F1731V	c.5191	0.036685938	0	1
2038 F5	ENST00000367796	p.L178M	c.532	0.123948329	0	1
2038 F5	ENST00000367796	p.N1890H	c.5668	0.113088981	3.162	1

2038	F5	ENST00000367796	p.A291D	c.872	0.01359102	6.354	1
2039	EPHB1	ENST00000398015	p.E613D	c.1839	0.003472042	9.17	1
2039	EPHB1	ENST00000398015	p.V616A	c.1847	0.021123607	6.565	1
2039	EPHB1	ENST00000398015	p.R691W	c.2071	1.012297824	0	1
2039	EPHB1	ENST00000398015	p.R691Q	c.2072	1.012297824	0	1
2040	IL13RA1	ENST00000371666	p.L243I	c.727	0.162761349	2.749	1
2040	IL13RA1	ENST00000371666	p.N273D	c.817	0.015232448	6.336	1
2040	IL13RA1	ENST00000371666	p.F275L	c.825	0.094964544	3.612	1
2040	IL13RA1	ENST00000371666	p.V299F	c.895	0.24291876	0	1
2041	XPO1	ENST00000404992	p.Y469C	c.1406	0.145151238	0	1
2041	XPO1	ENST00000404992	p.A507S	c.1519	0.046419775	5.303	1
2041	XPO1	ENST00000404992	p.D512G	c.1535	0.132523625	3.075	1
2041	XPO1	ENST00000404992	p.R553C	c.1657	0.143457461	9.76	1
2042	CNOT1	ENST00000317147	p.R2197H	c.6590	1.148753962	0	2
2042	CNOT1	ENST00000317147	p.D2257G	c.6770	0.297507924	2.749	1
2043	FLNC	ENST00000325888	p.D1538H	c.4612	0.120491226	3.053	1
2043	FLNC	ENST00000325888	p.G1570D	c.4709	0.120491226	0	1
2044	GGCT	ENST00000275428	p.P75H	c.224	0.078815174	5.256	1
2044	GGCT	ENST00000275428	p.G103A	c.308	1.026168953	0	1
2044	GGCT	ENST00000275428	p.G103E	c.308	1.026168953	0	1
2045	CRADD	ENST00000332896	p.R147C	c.439	0.011422324	6.452	1
2045	CRADD	ENST00000332896	p.R170H	c.509	0.016484593	0	1
2045	CRADD	ENST00000332896	p.P191S	c.571	0.005062269	7.626	1
2046	BCHE	ENST00000264381	p.T36K	c.107	0.080020043	3.733	1
2046	BCHE	ENST00000264381	p.K37N	c.111	0.049091715	4.997	1
2046	BCHE	ENST00000264381	p.P132T	c.394	0.07346428	4.935	1
2046	BCHE	ENST00000264381	p.A212D	c.635	0.139211644	0	1
2048	PROCR	ENST00000216968	p.A148V	c.443	0.010517969	0	1
2048	PROCR	ENST00000216968	p.Y171H	c.511	0.010517969	6.571	1
2049	AZGP1	ENST00000292401	p.V44D	c.131	0.084523879	0	1
2049	AZGP1	ENST00000292401	p.D95N	c.283	0.074531805	3.746	1
2049	AZGP1	ENST00000292401	p.S114F	c.341	0.009992075	6.645	1
2050	SMARCA4	ENST00000358026	p.K1493N	c.4479	0.260100157	0	1
2050	SMARCA4	ENST00000358026	p.R1552H	c.4655	0.168820083	2.714	1
2050	SMARCA4	ENST00000358026	p.D1600N	c.4798	0.124106466	3.215	1
2051	ASH1L	ENST00000368346	p.S2089F	c.6266	0.012335842	6.341	1
2051	ASH1L	ENST00000368346	p.D2204Y	c.6610	0.012335842	0	1
2052	TGFBR1	ENST00000552516	p.I369V	c.1105	0.091378591	0	1
2052	TGFBR1	ENST00000552516	p.F400L	c.1200	0.091378591	3.452	1
2053	UNG	ENST00000242576	p.G158V	c.473	0.185950712	3.441	1
2053	UNG	ENST00000242576	p.Q170E	c.508	0.066928871	5.681	1
2053	UNG	ENST00000242576	p.R269W	c.805	1.11156963	0	2
2054	CDKL1	ENST00000395834	p.L37M	c.109	0.113528472	0	1
2054	CDKL1	ENST00000395834	p.G14E	c.41	0.023970488	5.509	1
2054	CDKL1	ENST00000395834	p.S15T	c.43	0.09692643	3.449	1
2056	STAMBP	ENST00000394070	p.F376L	c.1128	0.007598867	7.04	1
2056	STAMBP	ENST00000394070	p.L285I	c.853	0.007598867	0	1
2057	SRP68	ENST00000307877	p.W135C	c.405	0.027432617	7.399	1
2057	SRP68	ENST00000307877	p.R152Q	c.455	0.112578247	3.151	1

2057 SRP68	ENST00000307877	p.E200Q	c.598	0.118503121	0	1
2058 CAT	ENST00000241052	p.K349N	c.1047	0.060673472	6.572	1
2058 CAT	ENST00000241052	p.Q352H	c.1056	0.101467145	3.316	1
2058 CAT	ENST00000241052	p.R430W	c.1288	0.022065617	6.924	1
2058 CAT	ENST00000241052	p.P49H	c.146	0.11915752	0	1
2059 MX1	ENST00000398600	p.R402W	c.1204	1.010180837	0	2
2059 MX1	ENST00000398600	p.M479V	c.1435	0.035085312	6.618	1
2060 HDC	ENST00000267845	p.Q375E	c.1123	0.094031741	3.646	1
2060 HDC	ENST00000267845	p.H377D	c.1129	0.009303569	6.748	1
2060 HDC	ENST00000267845	p.M126R	c.377	0.040556355	5.243	1
2060 HDC	ENST00000267845	p.C283Y	c.848	0.115590604	0	1
2061 CDK8	ENST00000381527	p.D103N	c.307	0.059870951	4.062	1
2061 CDK8	ENST00000381527	p.A155V	c.464	0.059870951	0	1
2062 AIM1	ENST00000369066	p.R1414Q	c.4241	0.08355952	3.87	1
2062 AIM1	ENST00000369066	p.G1453S	c.4357	0.23691524	2.173	1
2062 AIM1	ENST00000369066	p.F1494C	c.4481	0.290142433	0	1
2063 PPM1A	ENST00000325642	p.R354Q	c.1061	0.267016352	2.905	1
2063 PPM1A	ENST00000325642	p.R106C	c.316	1.133508176	0	1
2063 PPM1A	ENST00000325642	p.R106H	c.317	1.133508176	0	1
2064 SCML2	ENST00000251900	p.P113S	c.337	0.010613174	6.558	1
2064 SCML2	ENST00000251900	p.K161N	c.483	0.010613174	0	1
2065 EIF2AK3	ENST00000303236	p.P993R	c.2978	0.050695447	4.302	1
2065 EIF2AK3	ENST00000303236	p.P1060T	c.3178	0.050695447	0	1
2066 MAPK8	ENST00000374189	p.R150W	c.448	0.029116888	5.102	1
2066 MAPK8	ENST00000374189	p.T183M	c.548	0.029116888	0	1
2067 MEP1B	ENST00000269202	p.R146Q	c.437	0.113030842	3.354	1
2067 MEP1B	ENST00000269202	p.H210Y	c.628	0.170946546	2.683	1
2067 MEP1B	ENST00000269202	p.R238Q	c.713	0.25351865	0	1
2068 CD84	ENST00000311224	p.S59F	c.176	0.003393524	9.203	1
2068 CD84	ENST00000311224	p.R84W	c.250	1.001696762	0	1
2068 CD84	ENST00000311224	p.R84Q	c.251	1.001696762	0	1
2069 ADH5	ENST00000296412	p.K373N	c.1119	0.084096315	3.618	1
2069 ADH5	ENST00000296412	p.S147F	c.440	0.113978622	0	1
2069 ADH5	ENST00000296412	p.E24K	c.70	0.035181543	4.942	1
2070 SMYD2	ENST00000366957	p.C209Y	c.626	0.123415373	3.044	1
2070 SMYD2	ENST00000366957	p.R250I	c.749	0.139143956	0	1
2070 SMYD2	ENST00000366957	p.R299C	c.895	0.020068851	5.804	1
2071 FSHB	ENST00000417547	p.T68S	c.202	0.007089993	7.14	1
2071 FSHB	ENST00000417547	p.K72E	c.214	0.065384194	4.038	1
2071 FSHB	ENST00000417547	p.C100F	c.299	0.142033558	0	1
2071 FSHB	ENST00000417547	p.E22V	c.65	0.078577226	3.755	1
2072 CTSC	ENST00000227266	p.G430V	c.1289	0.028203148	0	1
2072 CTSC	ENST00000227266	p.Q252E	c.754	0.028203148	5.148	1
2073 CAND1	ENST00000545606	p.V261L	c.781	0.044916956	0	1
2073 CAND1	ENST00000545606	p.Y291C	c.872	0.041009588	6.941	1
2073 CAND1	ENST00000545606	p.H293Y	c.877	0.036778336	4.765	1
2074 MARK2	ENST00000402010	p.R153Q	c.458	0.004635691	8.753	1
2074 MARK2	ENST00000402010	p.E309K	c.925	1.002317845	0	2
2075 SI	ENST00000264382	p.M119T	c.356	0.008275143	6.917	1

2075 SI	ENST00000264382	p.K193N	c.579	0.008275143	0	1
2076 NUP43	ENST00000340413	p.T235A	c.703	0.053965013	8.424	1
2076 NUP43	ENST00000340413	p.L242F	c.726	0.13412737	0	1
2076 NUP43	ENST00000340413	p.M264I	c.792	0.114884363	3.892	1
2076 NUP43	ENST00000340413	p.L277V	c.829	0.075987602	3.969	1
2077 ITPK1	ENST00000267615	p.R124M	c.371	0.145490817	0	1
2077 ITPK1	ENST00000267615	p.E260K	c.778	0.145490817	2.781	1
2078 KIF3B	ENST00000375712	p.R336H	c.1007	1.197106118	0	2
2078 KIF3B	ENST00000375712	p.S280F	c.839	0.374448387	2.425	1
2078 KIF3B	ENST00000375712	p.A281S	c.841	0.023821891	6.52	1
2079 DAO	ENST00000228476	p.K337T	c.1010	1.155729755	0	1
2079 DAO	ENST00000228476	p.K337N	c.1011	1.155729755	0	1
2079 DAO	ENST00000228476	p.R2H	c.5	0.279807708	6.489	1
2079 DAO	ENST00000228476	p.E173K	c.517	1.130921228	9.454	2
2079 DAO	ENST00000228476	p.Q28K	c.82	0.05692227	5.985	1
2079 DAO	ENST00000228476	p.N302H	c.904	0.255304373	2.989	1
2080 AGT	ENST00000366667	p.F336I	c.1006	0.101634611	3.46	1
2080 AGT	ENST00000366667	p.E433A	c.1298	0.129182587	3.078	1
2080 AGT	ENST00000366667	p.K287N	c.861	0.209294541	0	1
2081 CDFN	ENST00000465530	p.E64K	c.190	0.086090628	3.538	1
2081 CDFN	ENST00000465530	p.A87T	c.259	0.086090628	0	1
2082 IDO1	ENST00000522495	p.P122S	c.364	0.089770895	3.589	1
2082 IDO1	ENST00000522495	p.G236V	c.707	0.113309433	3.639	1
2082 IDO1	ENST00000522495	p.F259I	c.775	0.165486835	0	1
2082 IDO1	ENST00000522495	p.G262D	c.785	0.028485896	8.884	1
2083 SUPV3L1	ENST00000359655	p.G509D	c.1526	0.010474317	0	1
2083 SUPV3L1	ENST00000359655	p.M295I	c.885	0.010474317	6.577	1
2084 IL10RB	ENST00000290200	p.V120I	c.358	0.006057759	7.367	1
2084 IL10RB	ENST00000290200	p.R130C	c.388	0.002271719	8.782	1
2084 IL10RB	ENST00000290200	p.P219S	c.654_655	0.008329478	0	1
2085 NADK	ENST00000378625	p.F356I	c.1066	0.074365122	0	1
2085 NADK	ENST00000378625	p.R382Q	c.1145	0.073367026	3.887	1
2085 NADK	ENST00000378625	p.G328R	c.982	0.02160642	7.206	1
2086 TLR8	ENST00000311912	p.T700A	c.2098	0.027129382	6.204	1
2086 TLR8	ENST00000311912	p.D727N	c.2179	1.025900533	0	1
2086 TLR8	ENST00000311912	p.D727Y	c.2179	1.025900533	0	1
2086 TLR8	ENST00000311912	p.S751Y	c.2252	0.054297527	6.341	1
2087 SCN3B	ENST00000299333	p.M41I	c.123	0.016561762	6.916	1
2087 SCN3B	ENST00000299333	p.R139W	c.415	1.008280881	0	1
2087 SCN3B	ENST00000299333	p.R139Q	c.416	1.008280881	0	1
2088 LRBA	ENST00000357115	p.P2077S	c.6229	0.026241609	7.252	1
2088 LRBA	ENST00000357115	p.E2103K	c.6307	3.006560402	0	4
2089 FCGR3B	ENST00000531221	p.A62V	c.185	0.097981636	7.416	1
2089 FCGR3B	ENST00000531221	p.V63M	c.187	1.075444318	0	1
2089 FCGR3B	ENST00000531221	p.V63A	c.188	1.075444318	0	1
2089 FCGR3B	ENST00000531221	p.C125R	c.373	0.248598999	3.845	1
2090 MS4A1	ENST00000345732	p.S123I	c.368	0.00882615	6.824	1
2090 MS4A1	ENST00000345732	p.S173F	c.518	0.00882615	0	1
2091 MAPK8	ENST00000374189	p.L57Q	c.170	0.100342174	0	1

2091	MAPK8	ENST00000374189	p.D103Y	c.307	0.100342174	3.317	1
2092	FARSA	ENST00000588025	p.L438M	c.1312	0.016589112	0	1
2092	FARSA	ENST00000588025	p.R534H	c.1601	0.011202775	6.48	1
2092	FARSA	ENST00000588025	p.R271L	c.812	0.002270145	8.783	1
2092	FARSA	ENST00000588025	p.Q276H	c.828	0.003116192	8.326	1
2093	SPOP	ENST00000503676	p.D188A	c.563	0.113833729	3.135	1
2093	SPOP	ENST00000503676	p.K262N	c.786	0.113833729	0	1
2094	ACTB	ENST00000331789	p.V339A	c.1016	0.013293591	8.409	1
2094	ACTB	ENST00000331789	p.A108V	c.324_323	0.106395733	0	1
2094	ACTB	ENST00000331789	p.V139A	c.416	0.014527323	8.628	1
2094	ACTB	ENST00000331789	p.G158R	c.472	0.083298393	3.613	1
2094	ACTB	ENST00000331789	p.T160A	c.478	0.022413683	5.703	1
2095	UPP2	ENST00000605860	p.A144D	c.431	0.009175484	6.768	1
2095	UPP2	ENST00000605860	p.Q232E	c.694	0.009175484	0	1
2096	C6	ENST00000263413	p.N855D	c.2563	0.043706753	4.516	1
2096	C6	ENST00000263413	p.N893K	c.2679	0.061893105	0	1
2096	C6	ENST00000263413	p.G930E	c.2789	0.018186352	5.781	1
2097	DCK	ENST00000504952	p.F126L	c.378	0.179617522	0	1
2097	DCK	ENST00000504952	p.I26M	c.78	0.179617522	2.477	1
2098	PHF6	ENST00000394292	p.G214V	c.641	0.040695131	4.619	1
2098	PHF6	ENST00000394292	p.C243Y	c.728	0.009284243	6.751	1
2098	PHF6	ENST00000394292	p.G288V	c.863	0.049979374	0	1
2099	DECR2	ENST00000219481	p.F42L	c.126	0.079083828	3.685	1
2099	DECR2	ENST00000219481	p.R43Q	c.128	0.018478911	5.866	1
2099	DECR2	ENST00000219481	p.L72R	c.215	0.09489654	0	1
2100	GUCY1B3	ENST00000502959	p.V450M	c.1348	0.117434928	3.133	1
2100	GUCY1B3	ENST00000502959	p.I543M	c.1629	0.033649722	5.049	1
2100	GUCY1B3	ENST00000502959	p.G582R	c.1744	0.144198086	0	1
2101	GMDS	ENST00000380815	p.G36A	c.107	0.018736561	6.738	1
2101	GMDS	ENST00000380815	p.E41Q	c.121	0.035182456	5.829	1
2101	GMDS	ENST00000380815	p.R64Q	c.191	1.026959508	0	2
2103	IFNW1	ENST00000380229	p.C122S	c.364	0.052145157	0	1
2103	IFNW1	ENST00000380229	p.G23V	c.68	0.021196943	5.56	1
2103	IFNW1	ENST00000380229	p.D25G	c.74	0.030948215	5.014	1
2104	DOCK2	ENST00000256935	p.D1341H	c.4021	0.503851556	3.599	1
2104	DOCK2	ENST00000256935	p.R1364S	c.4090	3.115694581	0	1
2104	DOCK2	ENST00000256935	p.R1364H	c.4091	3.115694581	0	2
2104	DOCK2	ENST00000256935	p.R1364L	c.4091	3.115694581	0	1
2104	DOCK2	ENST00000256935	p.G1365R	c.4093	0.229019272	6.137	1
2104	DOCK2	ENST00000256935	p.G1477R	c.4429	0.077399187	5.721	1
2105	RHEB	ENST00000262187	p.L58R	c.173	0.063460381	3.978	1
2105	RHEB	ENST00000262187	p.T23M	c.68	0.063460381	0	1
2106	VPS36	ENST00000378060	p.T239A	c.715	0.008076803	6.952	1
2106	VPS36	ENST00000378060	p.A290V	c.869	0.008076803	0	1
2107	LINGO1	ENST00000355300	p.R130C	c.388	0.004021641	7.958	1
2107	LINGO1	ENST00000355300	p.D176N	c.526	0.004021641	0	1
2108	RGS7	ENST00000407727	p.A337P	c.1009	0.036229798	5.902	1
2108	RGS7	ENST00000407727	p.E358K	c.1072	0.020970839	8.577	1
2108	RGS7	ENST00000407727	p.L360V	c.1078	1.190092552	0	2

2108	RGS7	ENST00000407727	p.F362L	c.1086	0.125770498	7.855	1
2108	RGS7	ENST00000407727	p.M430I	c.1290	0.379095968	2.587	1
2109	ASH2L	ENST00000343823	p.S134L	c.401	1.063026266	0	2
2109	ASH2L	ENST00000343823	p.R160Q	c.479	0.147990371	6.206	1
2109	ASH2L	ENST00000343823	p.C207Y	c.620	0.197031381	4.337	1
2110	LIPF	ENST00000394375	p.G350D	c.1049	0.049549009	4.335	1
2110	LIPF	ENST00000394375	p.E376K	c.1126	0.049549009	0	1
2111	NUP214	ENST00000451030	p.A187T	c.559	0.094702905	0	1
2111	NUP214	ENST00000451030	p.L220F	c.658	0.013242562	6.353	1
2111	NUP214	ENST00000451030	p.P221S	c.661	0.083478145	3.6	1
2112	DIRAS2	ENST00000375765	p.R73W	c.217	0.098413497	0	1
2112	DIRAS2	ENST00000375765	p.E106K	c.316	0.098413497	3.345	1
2113	GSTM4	ENST00000369836	p.R145K	c.434	0.00964502	0	1
2113	GSTM4	ENST00000369836	p.P179Q	c.536	0.00964502	6.696	1
2114	AHCYL2	ENST00000325006	p.P566H	c.1697	1.009712107	0	1
2114	AHCYL2	ENST00000325006	p.P566L	c.1697	1.009712107	0	1
2114	AHCYL2	ENST00000325006	p.P603L	c.1808	0.019424214	6.686	1
2115	NPM1	ENST00000517671	p.P216S	c.646	0.004903406	0	1
2115	NPM1	ENST00000517671	p.K257E	c.769	0.004903406	7.672	1
2116	FOXP2	ENST00000408937	p.Y534D	c.1600	0.27269526	0	1
2116	FOXP2	ENST00000408937	p.T562A	c.1684	0.085291357	9.441	1
2116	FOXP2	ENST00000408937	p.F566L	c.1698	0.082494796	4.015	1
2116	FOXP2	ENST00000408937	p.N569I	c.1706	0.131216725	3.154	1
2116	FOXP2	ENST00000408937	p.N580S	c.1739	0.113966018	3.365	1
2117	NF1	ENST00000358273	p.A928V	c.2783	0.016153605	5.952	1
2117	NF1	ENST00000358273	p.P931L	c.2792	0.017145812	5.866	1
2117	NF1	ENST00000358273	p.K1040N	c.3120	0.033299417	0	1
2118	ITGA4	ENST00000397033	p.S132F	c.395	0.006857983	7.188	1
2118	ITGA4	ENST00000397033	p.V142E	c.425	0.010258759	6.607	1
2118	ITGA4	ENST00000397033	p.L210S	c.629	0.027094974	0	1
2118	ITGA4	ENST00000397033	p.E267K	c.799	0.009978232	6.647	1
2119	ADAM17	ENST00000310823	p.D342Y	c.1024	0.133424035	0	1
2119	ADAM17	ENST00000310823	p.K388N	c.1164	0.104423452	3.533	1
2119	ADAM17	ENST00000310823	p.R234H	c.701	0.039781763	5.809	1
2119	ADAM17	ENST00000310823	p.K309R	c.926	0.066094816	5.098	1
2120	CNDP1	ENST00000358821	p.L501F	c.1503	0.009459633	6.724	1
2120	CNDP1	ENST00000358821	p.D121N	c.361	0.027622735	5.178	1
2120	CNDP1	ENST00000358821	p.T123M	c.368	0.005384395	7.537	1
2120	CNDP1	ENST00000358821	p.D186N	c.556	0.042466764	0	1
2121	ACAP1	ENST00000158762	p.S432I	c.1295	0.069257481	0	1
2121	ACAP1	ENST00000158762	p.F454L	c.1360	0.038432411	4.747	1
2121	ACAP1	ENST00000158762	p.R458Q	c.1373	0.048910728	4.965	1
2122	PHYH	ENST00000263038	p.L338V	c.1012	0.0625	5	1
2122	PHYH	ENST00000263038	p.R184in_frame_del	c.552_550	0.056445407	5.147	1
2122	PHYH	ENST00000263038	p.D286N	c.856	1.059472703	0	2
2123	CTNNB1	ENST00000361383	p.D375H	c.1123	0.093104841	3.425	1
2123	CTNNB1	ENST00000361383	p.R425Q	c.1274	0.093104841	0	1
2124	GDA	ENST00000238018	p.F73L	c.219	0.035624165	0	1
2124	GDA	ENST00000238018	p.F17L	c.49	0.035624165	4.811	1

2126 DUSP4	ENST00000240100	p.A282V	c.845	0.001258569	9.634	1
2126 DUSP4	ENST00000240100	p.S315R	c.945	0.001258569	0	1
2127 FTMT	ENST00000321339	p.L86I	c.256	0.059922014	0	1
2127 FTMT	ENST00000321339	p.E122K	c.364	0.0186588	5.744	1
2127 FTMT	ENST00000321339	p.N169K	c.507	0.041263214	4.599	1
2128 THEM4	ENST00000368814	p.E131D	c.393	0.030206441	5.049	1
2128 THEM4	ENST00000368814	p.L200F	c.598	0.030206441	0	1
2129 LIPF	ENST00000394375	p.S401Y	c.1202	0.005609158	7.478	1
2129 LIPF	ENST00000394375	p.I403M	c.1209	0.058236019	7.947	1
2129 LIPF	ENST00000394375	p.Y76C	c.227	0.006977858	7.163	1
2129 LIPF	ENST00000394375	p.G77E	c.230	0.016097718	5.957	1
2129 LIPF	ENST00000394375	p.N80K	c.240	0.03739528	4.741	1
2129 LIPF	ENST00000394375	p.R87I	c.260	0.024603374	5.345	1
2129 LIPF	ENST00000394375	p.A119V	c.356	0.09473581	0	1
2130 HSDL2	ENST00000398805	p.G128C	c.382	0.006306258	7.309	1
2130 HSDL2	ENST00000398805	p.Y178C	c.533	0.006306258	0	1
2131 FGFR4	ENST00000502906	p.S342F	c.1025	0.002727888	8.518	1
2131 FGFR4	ENST00000502906	p.G254R	c.760	0.002727888	0	1
2132 TRAPPC4	ENST00000533058	p.Y7H	c.19	0.160873656	2.636	1
2132 TRAPPC4	ENST00000533058	p.V156L	c.466	0.160873656	0	1
2133 SUV420H1	ENST00000304363	p.S193C	c.577	0.070170089	3.833	1
2133 SUV420H1	ENST00000304363	p.G194A	c.581	0.02750516	6.259	1
2133 SUV420H1	ENST00000304363	p.L226V	c.676	0.083227385	0	1
2134 CRYM	ENST00000219599	p.V226L	c.676	0.083736475	3.578	1
2134 CRYM	ENST00000219599	p.S292F	c.875	0.083736475	0	1
2135 MSH6	ENST00000234420	p.K99N	c.297	0.007823338	0	1
2135 MSH6	ENST00000234420	p.R128H	c.383	0.007823338	6.998	1
2137 VPS33A	ENST00000267199	p.E368K	c.1102	0.28710066	3.419	1
2137 VPS33A	ENST00000267199	p.D369V	c.1106	0.034751925	6.476	1
2137 VPS33A	ENST00000267199	p.T375P	c.1123	0.11275292	4.778	1
2137 VPS33A	ENST00000267199	p.R70C	c.208	2.164322654	0	3
2137 VPS33A	ENST00000267199	p.E95K	c.283	0.101355926	5.433	1
2138 DARS	ENST00000264161	p.M34I	c.102	0.028610112	5.272	1
2138 DARS	ENST00000264161	p.T403I	c.1208	0.108206754	3.245	1
2138 DARS	ENST00000264161	p.I432M	c.1296	0.131357308	0	1
2139 ERBB2	ENST00000269571	p.D821Y	c.2461	0.016042024	6.962	1
2139 ERBB2	ENST00000269571	p.M916I	c.2748	1.008021012	0	2
2140 SERPINA10	ENST00000261994	p.G356E	c.1067	0.021642335	5.53	1
2140 SERPINA10	ENST00000261994	p.I124in_frame_del	c.373_371	0.021642335	0	1
2141 FGFR4	ENST00000502906	p.V350M	c.1048	0.003860491	8.017	1
2141 FGFR4	ENST00000502906	p.E326K	c.976	0.003860491	0	1
2142 BUB1B	ENST00000412359	p.P104S	c.310	0.016447362	5.926	1
2142 BUB1B	ENST00000412359	p.R144C	c.430	0.016447362	0	1
2143 MGLL	ENST00000265052	p.G62E	c.185	0.016053147	5.961	1
2143 MGLL	ENST00000265052	p.G91E	c.272	0.025499676	0	1
2143 MGLL	ENST00000265052	p.T20S	c.58	0.009446529	6.726	1
2144 HIST1H1B	ENST00000331442	p.K49N	c.147	0.034987903	0	1
2144 HIST1H1B	ENST00000331442	p.G94D	c.281	0.034987903	4.837	1
2145 USP11	ENST00000218348	p.E140Q	c.418	0.006429846	0	1

2145 USP11	ENST00000218348	p.P177S	c.529	0.006429846	7.281	1
2146 CUL7	ENST00000535468	p.P463L	c.1388	0.189333289	2.401	1
2146 CUL7	ENST00000535468	p.R485W	c.1453	0.189333289	0	1
2147 RASL12	ENST00000220062	p.R103H	c.308	0.009512235	6.716	1
2147 RASL12	ENST00000220062	p.R28C	c.82	0.009512235	0	1
2148 HSPA5	ENST00000324460	p.L288V	c.862	0.061256213	4.029	1
2148 HSPA5	ENST00000324460	p.F312S	c.935	0.061256213	0	1
2149 HTRA1	ENST00000368984	p.K248T	c.743	0.01869764	5.741	1
2149 HTRA1	ENST00000368984	p.M314I	c.942	0.01869764	0	1
2150 NOS3	ENST00000297494	p.E167D	c.501	0.05509251	4.182	1
2150 NOS3	ENST00000297494	p.D197N	c.589	0.05509251	0	1
2151 IL5RA	ENST00000256452	p.D162Y	c.484	0.012510672	9.976	1
2151 IL5RA	ENST00000256452	p.E165D	c.495	0.099077415	0	1
2151 IL5RA	ENST00000256452	p.G191E	c.572	0.012898107	6.396	1
2151 IL5RA	ENST00000256452	p.R192I	c.575	0.09875148	3.536	1
2152 HTRA1	ENST00000368984	p.G350V	c.1049	0.03829559	4.749	1
2152 HTRA1	ENST00000368984	p.G276R	c.826	0.030877036	5.07	1
2152 HTRA1	ENST00000368984	p.S298I	c.893	0.066958428	0	1
2153 DPYS	ENST00000351513	p.K165R	c.494	0.108818477	0	1
2153 DPYS	ENST00000351513	p.D197N	c.589	0.060859851	4.11	1
2153 DPYS	ENST00000351513	p.A200S	c.598	0.05385482	4.296	1
2154 ENPEP	ENST00000265162	p.W771L	c.2312	0.022189177	5.494	1
2154 ENPEP	ENST00000265162	p.S799L	c.2396	0.022189177	0	1
2155 THBS2	ENST00000366787	p.R1036H	c.3107	0.0336092	4.895	1
2155 THBS2	ENST00000366787	p.N1069D	c.3205	0.060291003	0	1
2155 THBS2	ENST00000366787	p.R1093Q	c.3278	0.026681804	5.228	1
2156 ANK1	ENST00000396942	p.G970D	c.2909	0.204273729	7.166	1
2156 ANK1	ENST00000396942	p.S973I	c.2918	0.259224067	0	1
2156 ANK1	ENST00000396942	p.V1064L	c.3190	0.108563002	3.536	1
2156 ANK1	ENST00000396942	p.I1065V	c.3193	0.2100853	2.816	1
2156 ANK1	ENST00000396942	p.M1066R	c.3197	0.158751979	5.378	1
2157 PPP2R1A	ENST00000322088	p.L466M	c.1396	0.010416396	6.585	1
2157 PPP2R1A	ENST00000322088	p.I505T	c.1514	0.010416396	0	1
2158 GBP1	ENST00000370473	p.S428L	c.1283	0.012815202	6.286	1
2158 GBP1	ENST00000370473	p.D479N	c.1435	0.012815202	0	1
2159 PRKCG	ENST00000540413	p.D193N	c.577	1.044187559	0	2
2159 PRKCG	ENST00000540413	p.P194S	c.580	0.089571819	8.209	1
2159 PRKCG	ENST00000540413	p.T218R	c.653	0.164429175	4.615	1
2160 NPR3	ENST00000265074	p.W393C	c.1179	0.033353917	4.906	1
2160 NPR3	ENST00000265074	p.Y171H	c.511	0.033353917	0	1
2162 SRC	ENST00000445403	p.A91V	c.272	0.029400816	5.088	1
2162 SRC	ENST00000445403	p.A141T	c.421	0.029400816	0	1
2163 PDE4B	ENST00000341517	p.L350I	c.1048	0.032805602	6.736	1
2163 PDE4B	ENST00000341517	p.S417L	c.1250	1.009381277	0	2
2164 QSOX1	ENST00000367602	p.L436F	c.1306	0.024210647	0	1
2164 QSOX1	ENST00000367602	p.S463C	c.1388	0.007099829	7.138	1
2164 QSOX1	ENST00000367602	p.S469I	c.1406	0.010365978	6.592	1
2164 QSOX1	ENST00000367602	p.L475F	c.1423	0.019114932	7.212	1
2165 HK3	ENST00000292432	p.D721N	c.2161	1.003001709	0	2

2165 HK3	ENST00000292432	p.F747L	c.2239	0.159941601	8.38	1
2166 GPC1	ENST00000420138	p.D476H	c.1426	0.012157581	6.362	1
2166 GPC1	ENST00000420138	p.R480Q	c.1439	0.008138621	6.941	1
2167 PNLIPRP1	ENST00000358834	p.H166Y	c.496	0.207543975	0	1
2167 PNLIPRP1	ENST00000358834	p.L187M	c.559	0.041914267	4.772	1
2167 PNLIPRP1	ENST00000358834	p.T191K	c.572	0.162492744	2.784	1
2167 PNLIPRP1	ENST00000358834	p.H327Y	c.979	0.037745269	5.279	1
2168 AGTR1	ENST00000404754	p.L262M	c.784	0.020948634	5.577	1
2168 AGTR1	ENST00000404754	p.A283T	c.847	0.020948634	0	1
2169 PTPRE	ENST00000419012	p.L153Q	c.458	0.010911551	6.518	1
2169 PTPRE	ENST00000419012	p.C186S	c.555_556	0.010911551	0	1
2171 PDCD6	ENST00000264933	p.L52V	c.154	0.008060025	6.955	1
2171 PDCD6	ENST00000264933	p.D149N	c.445	0.008060025	0	1
2172 PIK3CA	ENST00000263967	p.E737K	c.2209	0.016322434	5.937	1
2172 PIK3CA	ENST00000263967	p.L766F	c.2296	0.016322434	0	1
2173 PGLYRP1	ENST00000008938	p.G94R	c.280	0.143686856	2.799	1
2173 PGLYRP1	ENST00000008938	p.A116T	c.346	0.143686856	0	1
2174 HDAC3	ENST00000305264	p.E347D	c.1041	0.021038849	0	1
2174 HDAC3	ENST00000305264	p.P98S	c.292	0.020082186	6.547	1
2174 HDAC3	ENST00000305264	p.G99R	c.295	0.016224315	6.595	1
2175 CDK6	ENST00000265734	p.L218I	c.652	0.079868564	3.783	1
2175 CDK6	ENST00000265734	p.V234M	c.700	0.106665992	3.33	1
2175 CDK6	ENST00000265734	p.F265I	c.793	0.172086692	0	1
2176 OCRL	ENST00000371113	p.L863F	c.2587	0.020151066	5.633	1
2176 OCRL	ENST00000371113	p.R884H	c.2651	0.020151066	0	1
2177 MGLL	ENST00000265052	p.V105I	c.313	0.014268723	0	1
2177 MGLL	ENST00000265052	p.R229Q	c.686	0.014268723	6.131	1
2178 TBK1	ENST00000331710	p.F112L	c.336	0.028143965	0	1
2178 TBK1	ENST00000331710	p.M263V	c.787	0.011187256	6.482	1
2178 TBK1	ENST00000331710	p.L281I	c.841	0.016956709	5.882	1
2179 BIN1	ENST00000316724	p.L541H	c.1622	1.01277972	0	1
2179 BIN1	ENST00000316724	p.L541R	c.1622	1.01277972	0	1
2179 BIN1	ENST00000316724	p.G582V	c.1745	0.047412816	6.29	1
2180 MASP2	ENST00000400897	p.M403I	c.1209	0.032940357	0	1
2180 MASP2	ENST00000400897	p.C430S	c.1288	0.032940357	4.924	1
2181 CAB39L	ENST00000409308	p.F280S	c.839	0.004518313	7.79	1
2181 CAB39L	ENST00000409308	p.L332V	c.994	0.004518313	0	1
2182 PLAU	ENST00000372764	p.Y71F	c.212	0.141612521	2.962	1
2182 PLAU	ENST00000372764	p.G75D	c.224	0.11672593	3.273	1
2182 PLAU	ENST00000372764	p.R130Q	c.389	0.231785795	0	1
2183 PIK3CG	ENST00000496166	p.I703L	c.2107	0.015082297	6.051	1
2183 PIK3CG	ENST00000496166	p.R707S	c.2121	0.012691444	6.3	1
2183 PIK3CG	ENST00000496166	p.R839C	c.2515	0.027773741	0	1
2184 ALOX15	ENST00000545513	p.S480F	c.1439	0.039852168	5.312	1
2184 ALOX15	ENST00000545513	p.Y482H	c.1444	0.011913438	6.517	1
2184 ALOX15	ENST00000545513	p.A486V	c.1457	0.017249922	5.983	1
2184 ALOX15	ENST00000545513	p.A563T	c.1687	0.095788764	3.457	1
2184 ALOX15	ENST00000545513	p.Y672C	c.2015	0.142964402	0	1
2185 ILSRA	ENST00000256452	p.Q56E	c.166	0.080120353	3.69	1

2185 IL5RA	ENST00000256452	p.R99W	c.295	0.043554165	6.763	1
2185 IL5RA	ENST00000256452	p.L30I	c.88	0.08668907	0	1
2186 C7	ENST00000313164	p.R792L	c.2375	0.222056699	0	1
2186 C7	ENST00000313164	p.A822V	c.2465	0.222056699	2.171	1
2187 ANGPT2	ENST00000325203	p.F346C	c.1037	0.006929659	0	1
2187 ANGPT2	ENST00000325203	p.G443R	c.1327	0.006929659	7.173	1
2188 KARS	ENST00000319410	p.G167V	c.501_500	0.063226998	7.192	1
2188 KARS	ENST00000319410	p.F197C	c.590	1.018696958	0	2
2188 KARS	ENST00000319410	p.P228S	c.682	0.023715926	6.398	1
2189 AKR1C3	ENST00000380554	p.R171S	c.513	0.143142415	0	1
2189 AKR1C3	ENST00000380554	p.P315S	c.943	0.061621825	4.14	1
2189 AKR1C3	ENST00000380554	p.S320L	c.959	0.066706931	4.019	1
2189 AKR1C3	ENST00000380554	p.E322K	c.964	0.03871802	5.337	1
2190 BPI	ENST00000262865	p.P461T	c.1381	0.104748392	0	1
2190 BPI	ENST00000262865	p.D483N	c.1447	0.104748392	3.255	1
2191 ABCB10	ENST00000344517	p.A394T	c.1180	0.12612568	3.157	1
2191 ABCB10	ENST00000344517	p.F398L	c.1194	0.123551252	3.19	1
2191 ABCB10	ENST00000344517	p.F399C	c.1196	0.01885217	6.018	1
2191 ABCB10	ENST00000344517	p.Y332H	c.994	0.237117999	0	1
2192 GUCY1A3	ENST00000296518	p.V488I	c.1462	0.599659322	2.258	1
2192 GUCY1A3	ENST00000296518	p.A550V	c.1649	0.250349418	9.41	1
2192 GUCY1A3	ENST00000296518	p.D561H	c.1681	0.296774217	6.456	1
2192 GUCY1A3	ENST00000296518	p.S565Y	c.1694	0.013888002	8.932	1
2192 GUCY1A3	ENST00000296518	p.R574Q	c.1721	1.422646958	0	2
2192 GUCY1A3	ENST00000296518	p.R614Q	c.1841	1.384889814	3.533	2
2192 GUCY1A3	ENST00000296518	p.I616N	c.1847	0.129266015	5.271	1
2193 UAP1	ENST00000367925	p.T81S	c.241	0.014248956	6.133	1
2193 UAP1	ENST00000367925	p.D318E	c.954	0.014248956	0	1
2194 NR4A1	ENST00000545748	p.E499D	c.1497	0.388383088	2.955	1
2194 NR4A1	ENST00000545748	p.R504H	c.1511	0.03644042	6.424	1
2194 NR4A1	ENST00000545748	p.L616M	c.1846	2.140606572	0	3
2195 F10	ENST00000375559	p.A339V	c.1016	0.044518022	8.01	1
2195 F10	ENST00000375559	p.P422L	c.1265	0.186146307	0	1
2195 F10	ENST00000375559	p.D132N	c.394	0.144382721	3.389	1
2195 F10	ENST00000375559	p.G263E	c.788	0.095096319	3.526	1
2196 TENC1	ENST00000314276	p.G1170V	c.3509	0.271495464	1.881	1
2196 TENC1	ENST00000314276	p.R1254H	c.3761	0.271495464	0	1
2197 SULT2A1	ENST00000222002	p.S68F	c.203	0.012610208	9.903	1
2197 SULT2A1	ENST00000222002	p.W7C	c.21	0.019918371	5.866	1
2197 SULT2A1	ENST00000222002	p.K141N	c.423	0.197340596	0	1
2197 SULT2A1	ENST00000222002	p.T15I	c.44	0.020266538	5.841	1
2197 SULT2A1	ENST00000222002	p.V239E	c.716	0.111445456	3.469	1
2197 SULT2A1	ENST00000222002	p.D3G	c.8	0.080314043	3.808	1
2198 GBE1	ENST00000429644	p.R336K	c.1007	0.017313005	5.852	1
2198 GBE1	ENST00000429644	p.K68T	c.203	0.017313005	0	1
2199 CLEC4D	ENST00000299665	p.W154V	c.460_461	0.165305336	2.792	1
2199 CLEC4D	ENST00000299665	p.E173K	c.517	0.165806607	2.787	1
2199 CLEC4D	ENST00000299665	p.D196N	c.586	0.289272717	0	1
2200 RBM12	ENST00000359646	p.Q861L	c.2582	0.120643786	0	1

2200 RBM12	ENST00000359646	p.G898S	c.2692	0.092812598	3.473	1
2200 RBM12	ENST00000359646	p.A900V	c.2699	0.0410987	5.031	1
2201 F10	ENST00000375559	p.F269L	c.807	0.284993318	0	1
2201 F10	ENST00000375559	p.R327Q	c.980	0.284993318	1.811	1
2202 PIAS3	ENST00000393045	p.I142M	c.426	0.240653113	0	1
2202 PIAS3	ENST00000393045	p.R143W	c.427	0.091814943	7.488	1
2202 PIAS3	ENST00000393045	p.S273C	c.818	0.175876249	3.318	1
2202 PIAS3	ENST00000393045	p.V274M	c.820	0.185295411	2.891	1
2203 SEPSECS	ENST00000382103	p.C41F	c.122	0.005715122	7.451	1
2203 SEPSECS	ENST00000382103	p.A129T	c.385	0.006606033	7.242	1
2203 SEPSECS	ENST00000382103	p.F286V	c.856	0.012321155	0	1
2204 MTOR	ENST00000361445	p.A1428V	c.4283	0.078454499	3.672	1
2204 MTOR	ENST00000361445	p.E2388Q	c.7162	0.078454499	0	1
2205 PGR	ENST00000325455	p.D746Y	c.2236	0.366783336	2.447	1
2205 PGR	ENST00000325455	p.R836Q	c.2507	1.183391668	0	2
2206 CPS1	ENST00000430249	p.V1383E	c.4148	0.066800374	3.904	1
2206 CPS1	ENST00000430249	p.A1480S	c.4438	0.066800374	0	1
2207 RYR3	ENST00000389232	p.V2618I	c.7852	0.074739748	0	1
2207 RYR3	ENST00000389232	p.W2670R	c.8008	0.026998408	5.28	1
2207 RYR3	ENST00000389232	p.A2672V	c.8015	0.050263717	4.351	1
2208 DOCK2	ENST00000256935	p.E1496V	c.4487	0.003825861	0	1
2208 DOCK2	ENST00000256935	p.L1566M	c.4696	0.003825861	8.03	1
2209 CRMP1	ENST00000324989	p.R475Q	c.1424	0.170922359	7.496	1
2209 CRMP1	ENST00000324989	p.A496T	c.1486	2.00553961	0	3
2210 ITGAM	ENST00000544665	p.G512R	c.1534	0.049240868	4.344	1
2210 ITGAM	ENST00000544665	p.Q516K	c.1546	0.013659041	6.194	1
2210 ITGAM	ENST00000544665	p.R571Q	c.1712	0.062899909	0	1
2211 DLG1	ENST00000357674	p.R429S	c.1287	0.075154328	3.734	1
2211 DLG1	ENST00000357674	p.P514L	c.1541	0.075154328	0	1
2212 ADORA2A	ENST00000337539	p.A105V	c.314	0.009143739	0	1
2212 ADORA2A	ENST00000337539	p.R222W	c.664	0.009143739	6.773	1
2213 SAT2	ENST00000269298	p.F51L	c.153	0.191974688	2.863	1
2213 SAT2	ENST00000269298	p.R87H	c.260	0.270682861	0	1
2213 SAT2	ENST00000269298	p.C122G	c.364	0.187753511	2.908	1
2214 CUL1	ENST00000602748	p.A554V	c.1661	0.01179239	6.406	1
2214 CUL1	ENST00000602748	p.T580M	c.1739	0.01179239	0	1
2215 HBB	ENST00000335295	p.V68L	c.202	0.077428044	3.691	1
2215 HBB	ENST00000335295	p.G25S	c.73	0.077428044	0	1
2216 ROR2	ENST00000375708	p.E467K	c.1399	0.109803809	0	1
2216 ROR2	ENST00000375708	p.K545N	c.1635	0.109803809	3.187	1
2217 WAPAL	ENST00000298767	p.Y725C	c.2174	0.205102476	0	1
2217 WAPAL	ENST00000298767	p.I772T	c.2315	0.046836009	5.068	1
2217 WAPAL	ENST00000298767	p.N781D	c.2341	0.012774344	6.489	1
2217 WAPAL	ENST00000298767	p.M796L	c.2386	0.196187049	6.139	1
2217 WAPAL	ENST00000298767	p.E797D	c.2391	0.169084029	2.762	1
2217 WAPAL	ENST00000298767	p.R853I	c.2558	0.195415012	8.616	1
2218 CR1	ENST00000367052	p.L49F	c.145	0.024523343	9.279	1
2218 CR1	ENST00000367052	p.A52S	c.154	0.130808116	0	1
2218 CR1	ENST00000367052	p.C73R	c.217	0.120738745	3.29	1

2218	CR1	ENST00000367052	p.P81E	c.241_242	0.036886127	5.213	1
2219	ACVR2A	ENST00000241416	p.R400C	c.1198	0.122257934	0	1
2219	ACVR2A	ENST00000241416	p.N282I	c.845	0.122257934	3.032	1
2220	GLB1	ENST00000445488	p.N603D	c.1807	0.015788304	5.985	1
2220	GLB1	ENST00000445488	p.Y154C	c.461	0.015788304	0	1
2221	CFI	ENST00000394635	p.D358Y	c.1072	0.004763652	0	1
2221	CFI	ENST00000394635	p.P536L	c.1607	0.001372479	9.509	1
2221	CFI	ENST00000394635	p.M540I	c.1620	0.003391173	8.204	1
2222	CYP2A6	ENST00000301141	p.Q422R	c.1265	0.011343424	6.462	1
2222	CYP2A6	ENST00000301141	p.I331T	c.992	0.011343424	0	1
2223	CDK8	ENST00000381527	p.P339L	c.1016	0.08478777	3.56	1
2223	CDK8	ENST00000381527	p.R125L	c.374	0.08478777	0	1
2224	S100A9	ENST00000368738	p.G35E	c.104	0.004175023	0	1
2224	S100A9	ENST00000368738	p.E60K	c.178	0.004175023	7.904	1
2225	IL1A	ENST00000263339	p.A195V	c.584	0.260797148	0	1
2225	IL1A	ENST00000263339	p.N220S	c.659	0.260797148	1.939	1
2226	CD38	ENST00000226279	p.W50L	c.149	0.175720353	0	1
2226	CD38	ENST00000226279	p.K121N	c.363	0.146616093	2.818	1
2226	CD38	ENST00000226279	p.D175G	c.524	0.038722576	4.882	1
2227	SULT1B1	ENST00000310613	p.M60I	c.180	0.141073416	5.34	1
2227	SULT1B1	ENST00000310613	p.I220L	c.658	1.02695265	0	1
2227	SULT1B1	ENST00000310613	p.I220S	c.659	1.02695265	0	1
2227	SULT1B1	ENST00000310613	p.H227Y	c.679	0.096223553	8.787	1
2228	6-Sep	ENST00000489216	p.T98M	c.293	0.024964122	5.324	1
2228	6-Sep	ENST00000489216	p.H144Q	c.432	0.029844748	0	1
2228	6-Sep	ENST00000489216	p.T290I	c.869	0.003747125	8.06	1
2228	6-Sep	ENST00000489216	p.Y298D	c.892	0.0011335	9.785	1
2229	DHX9	ENST00000367549	p.H173R	c.518	0.156786711	0	1
2229	DHX9	ENST00000367549	p.L244M	c.730	0.024382629	6.481	1
2229	DHX9	ENST00000367549	p.H252Y	c.754	0.147221599	2.78	1
2231	RPS5	ENST00000598495	p.A67S	c.199	0.017591228	5.829	1
2231	RPS5	ENST00000598495	p.E119K	c.355	0.003791541	8.043	1
2231	RPS5	ENST00000598495	p.F20L	c.58	0.021382769	0	1
2232	CYP46A1	ENST00000261835	p.R372H	c.1115	0.112390381	3.361	1
2232	CYP46A1	ENST00000261835	p.R435H	c.1304	0.25208603	0	1
2232	CYP46A1	ENST00000261835	p.W134C	c.402	0.133253179	3.09	1
2232	CYP46A1	ENST00000261835	p.R138Q	c.413	0.045332242	4.744	1
2233	STK17B	ENST00000263955	p.R74Q	c.221	0.160141356	0	1
2233	STK17B	ENST00000263955	p.I106M	c.318	0.077783077	3.807	1
2233	STK17B	ENST00000263955	p.Q20E	c.58	0.095032141	3.495	1
2234	CUL5	ENST00000531427	p.E71Q	c.211	0.016288528	0	1
2234	CUL5	ENST00000531427	p.V227L	c.679	0.016288528	5.94	1
2235	PPIA	ENST00000468812	p.R37C	c.109	0.023324662	0	1
2235	PPIA	ENST00000468812	p.S147F	c.440	0.023324662	5.422	1
2236	SARS	ENST00000369923	p.P384L	c.1151	0.041292679	0	1
2236	SARS	ENST00000369923	p.Q467H	c.1401	0.031217853	5.151	1
2236	SARS	ENST00000369923	p.D161Y	c.481	0.013148117	6.249	1
2237	SERPINB2	ENST00000457692	p.L395I	c.1183	0.086935164	3.658	1
2237	SERPINB2	ENST00000457692	p.F409I	c.1225	0.167524621	3.36	1

2237	SERPINB2	ENST00000457692	p.L13I	c.37	0.068492207	7.362	1
2237	SERPINB2	ENST00000457692	p.F16L	c.48	0.182693896	0	1
2238	VASP	ENST00000245932	p.R35H	c.104	0.010806177	6.532	1
2238	VASP	ENST00000245932	p.Q37K	c.109	0.011948721	6.387	1
2238	VASP	ENST00000245932	p.L91F	c.271	0.022754898	0	1
2239	FH	ENST00000366560	p.R343Q	c.1028	0.055969893	0	1
2239	FH	ENST00000366560	p.Q376H	c.1128	0.016460493	7.245	1
2239	FH	ENST00000366560	p.H235R	c.704	0.049377582	4.34	1
2240	RABGEF1	ENST00000437078	p.E79K	c.235	0.168917568	3.623	1
2240	KCTD7	ENST00000380828	p.E105K	c.313	0.168917568	3.623	1
2240	RABGEF1	ENST00000437078	p.F163S	c.488	0.168917568	7.246	1
2240	KCTD7	ENST00000380828	p.F189S	c.566	0.168917568	0	1
2241	SPTB	ENST00000556626	p.K1696T	c.5087	0.083678454	3.579	1
2241	SPTB	ENST00000556626	p.W1771G	c.5311	0.083678454	0	1
2242	TOB1	ENST00000499247	p.P46S	c.136	0.007370611	7.084	1
2242	TOB1	ENST00000499247	p.D95N	c.283	0.007370611	0	1
2243	KRIT1	ENST00000412043	p.L497Q	c.1490	0.017457612	0	1
2243	KRIT1	ENST00000412043	p.P657S	c.1969	0.017457612	5.84	1
2244	HSD11B1	ENST00000367027	p.S125C	c.374	0.059294325	4.129	1
2244	HSD11B1	ENST00000367027	p.A226E	c.677	0.094601225	0	1
2244	HSD11B1	ENST00000367027	p.L267P	c.800	0.053630463	4.739	1
2245	MS4A1	ENST00000345732	p.K50N	c.150	0.214984877	0	1
2245	MS4A1	ENST00000345732	p.G75E	c.224_225	0.032960603	5.347	1
2245	MS4A1	ENST00000345732	p.M23L	c.67	0.181326596	2.568	1
2245	MS4A1	ENST00000345732	p.S25C	c.74	0.025450325	5.521	1
2246	KAL1	ENST00000262648	p.K449N	c.1347	0.001226702	0	1
2246	KAL1	ENST00000262648	p.Y486D	c.1456	0.001226702	9.671	1
2247	USP4	ENST00000265560	p.E338K	c.1012	0.142200653	0	1
2247	USP4	ENST00000265560	p.R411W	c.1231	0.142200653	2.814	1
2248	RGS2	ENST00000235382	p.F105L	c.315	1.004527719	0	2
2248	RGS2	ENST00000235382	p.R188H	c.563	0.01308545	7.787	1
2249	DCX	ENST00000338081	p.S58I	c.173	0.195307638	6.099	1
2249	DCX	ENST00000338081	p.D90Y	c.268	1.541865575	0	1
2249	DCX	ENST00000338081	p.E91K	c.271	0.077041584	9.957	1
2249	DCX	ENST00000338081	p.R140H	c.419	0.585721004	2.157	1
2249	DCX	ENST00000338081	p.D143N	c.427	0.250472782	3.409	1
2249	DCX	ENST00000338081	p.R144H	c.431	0.487498465	2.266	1
2249	DCX	ENST00000338081	p.S171Y	c.512	1.541865575	0	1
2250	ACOT2	ENST00000238651	p.A65V	c.194	0.028795756	6.118	1
2250	ACOT2	ENST00000238651	p.Q184R	c.551	1.014397878	0	2
2251	MTHFD2	ENST00000394053	p.V39F	c.115	0.107277563	3.702	1
2251	MTHFD2	ENST00000394053	p.P177L	c.530	0.10104237	4.036	1
2251	MTHFD2	ENST00000394053	p.P309T	c.925	0.137799646	0	1
2252	NRP2	ENST00000360409	p.W216C	c.648	0.008127346	0	1
2252	NRP2	ENST00000360409	p.F249C	c.746	0.008127346	6.943	1
2253	CD4	ENST00000011653	p.R79H	c.236	0.097193254	3.363	1
2253	CD4	ENST00000011653	p.E102K	c.304	0.097193254	0	1
2254	CD1B	ENST00000368168	p.C224Y	c.671	0.031144337	0	1
2254	CD1B	ENST00000368168	p.S278Y	c.833	0.01159784	6.43	1

2254	CD1B	ENST00000368168	p.I291N	c.872	0.010294375	6.602	1
2254	CD1B	ENST00000368168	p.W295L	c.884	0.009252122	6.756	1
2255	MGAM	ENST00000475668	p.D2540N	c.7618	0.102592701	4.285	1
2255	MGAM	ENST00000475668	p.V2542M	c.7624	0.036448418	5.778	1
2255	MGAM	ENST00000475668	p.G2591R	c.7771	1.069520559	0	1
2255	MGAM	ENST00000475668	p.G2591E	c.7772	1.069520559	0	1
2256	PDE1A	ENST00000456212	p.H335P	c.1004	0.021988715	5.597	1
2256	PDE1A	ENST00000456212	p.R343I	c.1028	0.065630156	3.959	1
2256	PDE1A	ENST00000456212	p.P427S	c.1279	0.084961897	0	1
2257	HBD	ENST00000380299	p.V61M	c.181	0.022097087	5.5	1
2257	HBD	ENST00000380299	p.A28P	c.82	0.022097087	0	1
2258	CBLB	ENST00000264122	p.C345S	c.1034	0.027565355	0	1
2258	CBLB	ENST00000264122	p.Q318E	c.952	0.027565355	5.181	1
2259	GMDS	ENST00000380815	p.S117F	c.350	1.00585141	0	2
2259	GMDS	ENST00000380815	p.R325Q	c.974	0.019150465	7.417	1
2260	PDGFRB	ENST00000261799	p.V125M	c.373	0.008881383	6.815	1
2260	PDGFRB	ENST00000261799	p.L128I	c.382_381	0.012115519	6.367	1
2260	PDGFRB	ENST00000261799	p.D153H	c.457	0.020996901	0	1
2261	PRKCG	ENST00000540413	p.S260F	c.779	0.12869251	2.958	1
2261	PRKCG	ENST00000540413	p.Y286F	c.857	0.12869251	0	1
2262	GABBR2	ENST00000259455	p.T202M	c.605	0.161451701	0	1
2262	GABBR2	ENST00000259455	p.E230K	c.688	0.138720384	2.947	1
2262	GABBR2	ENST00000259455	p.L252R	c.755	0.040817101	4.976	1
2263	FAP	ENST00000188790	p.P472L	c.1415	0.006721505	0	1
2263	FAP	ENST00000188790	p.S53Y	c.158	0.006721505	7.217	1
2264	SET	ENST00000372692	p.Q41P	c.122	0.001972171	0	1
2264	SET	ENST00000372692	p.E65D	c.195	0.001972171	8.986	1
2265	HEXA	ENST00000566304	p.P223S	c.667	0.019572235	6.939	1
2265	HEXA	ENST00000566304	p.T228S	c.683	0.072249209	3.946	1
2265	HEXA	ENST00000566304	p.W277G	c.829	0.13230638	3.139	1
2265	HEXA	ENST00000566304	p.F315L	c.945	0.186552168	0	1
2266	CAPN2	ENST00000295006	p.L541F	c.1623	0.040921419	0	1
2266	CAPN2	ENST00000295006	p.F597L	c.1791	0.040921419	4.611	1
2267	RRM2	ENST00000360566	p.R358W	c.1072	0.019370433	5.69	1
2267	RRM2	ENST00000360566	p.I384V	c.1150	0.044433971	0	1
2267	RRM2	ENST00000360566	p.P406S	c.1216	0.03032658	6.104	1
2267	RRM2	ENST00000360566	p.G293N	c.877_878	0.010525262	6.57	1
2268	THEM4	ENST00000368814	p.D70N	c.208	0.118339204	3.079	1
2268	THEM4	ENST00000368814	p.E103K	c.307	0.118339204	0	1
2269	CSF3R	ENST00000440588	p.Q197H	c.591	0.109803809	3.187	1
2269	CSF3R	ENST00000440588	p.P221S	c.661	0.109803809	0	1
2270	ITGA2B	ENST00000262407	p.R431M	c.1292	0.368096267	0	1
2270	ITGA2B	ENST00000262407	p.S432L	c.1295	0.102357823	5.883	1
2270	ITGA2B	ENST00000262407	p.H622Y	c.1864	0.137467577	3.195	1
2270	ITGA2B	ENST00000262407	p.G721D	c.2162	0.316430956	2.302	1
2270	ITGA2B	ENST00000262407	p.S756N	c.2267	0.051394008	4.674	1
2272	DUSP8	ENST00000397374	p.R210W	c.628	0.009030365	0	1
2272	DUSP8	ENST00000397374	p.F231S	c.692	0.009030365	6.791	1
2273	SV2C	ENST00000502798	p.R475K	c.1424	0.091318142	0	1

2273 SV2C	ENST00000502798	p.D498G	c.1493	0.008906041	6.811	1
2273 SV2C	ENST00000502798	p.V516L	c.1546	0.086569797	3.601	1
2275 TALDO1	ENST00000319006	p.R192H	c.575	0.079384436	3.655	1
2275 TALDO1	ENST00000319006	p.R239H	c.716	0.079384436	0	1
2276 CUL5	ENST00000531427	p.L407Q	c.1220	0.008513688	0	1
2276 CUL5	ENST00000531427	p.V437A	c.1310	0.008513688	6.876	1
2277 NEK1	ENST00000507142	p.L125I	c.373	0.058233777	4.102	1
2277 NEK1	ENST00000507142	p.G148E	c.443	0.058233777	0	1
2278 FTO	ENST00000471389	p.E375K	c.1123	0.21292542	0	1
2278 FTO	ENST00000471389	p.W407L	c.1220	0.164097032	2.789	1
2278 FTO	ENST00000471389	p.M410I	c.1230	0.049245583	9.537	1
2278 FTO	ENST00000471389	p.R445C	c.1333	0.106426949	3.902	1
2279 PAPSS2	ENST00000456849	p.L50I	c.148	0.009650914	0	1
2279 PAPSS2	ENST00000456849	p.E156G	c.467	0.007329853	7.092	1
2279 PAPSS2	ENST00000456849	p.L163I	c.487	0.002321061	8.751	1
2280 TTC5	ENST00000258821	p.V417L	c.1249	0.085200163	3.553	1
2280 TTC5	ENST00000258821	p.H300Y	c.898	0.085200163	0	1
2281 POLRMT	ENST00000588649	p.D1128E	c.3384	0.028835703	5.116	1
2281 POLRMT	ENST00000588649	p.D1151N	c.3451	0.028835703	0	1
2282 GPX8	ENST00000503787	p.N85K	c.255	0.010194961	6.616	1
2282 GPX8	ENST00000503787	p.Y86C	c.257	0.081277509	3.621	1
2282 GPX8	ENST00000503787	p.Y130D	c.388	0.09147247	0	1
2283 GCKR	ENST00000264717	p.L364F	c.1090	0.015425265	6.153	1
2283 GCKR	ENST00000264717	p.M371I	c.1113	0.099038464	3.356	1
2283 GCKR	ENST00000264717	p.F115L	c.345	0.111718771	0	1
2285 RHOA	ENST00000418115	p.Y42C	c.125	4.018853811	0	3
2285 RHOA	ENST00000418115	p.Y42S	c.125	4.018853811	0	2
2285 RHOA	ENST00000418115	p.R5W	c.13	1.056196244	6.729	1
2285 RHOA	ENST00000418115	p.R5Q	c.14	1.056196244	6.729	1
2286 TLR2	ENST00000260010	p.D691Y	c.2071	0.212003821	0	1
2286 TLR2	ENST00000260010	p.E694D	c.2082	0.089904137	7.514	1
2286 TLR2	ENST00000260010	p.H721D	c.2161	0.163074824	3.4	1
2286 TLR2	ENST00000260010	p.R723H	c.2168	0.149073544	3.161	1
2287 PLCB2	ENST00000260402	p.P447S	c.1339	0.017836792	5.809	1
2287 PLCB2	ENST00000260402	p.S450R	c.1350	0.00797113	6.971	1
2287 PLCB2	ENST00000260402	p.N319I	c.956	0.025807922	0	1
2288 EHMT1	ENST00000460843	p.R951H	c.2852	0.068015153	0	1
2288 EHMT1	ENST00000460843	p.E1032D	c.3096	0.068015153	3.878	1
2289 IL12B	ENST00000231228	p.Y38H	c.112	0.201018609	8.764	1
2289 IL12B	ENST00000231228	p.G43R	c.127	1.014011174	0	1
2289 IL12B	ENST00000231228	p.G43A	c.128	1.014011174	0	1
2289 IL12B	ENST00000231228	p.E81Q	c.241	0.219839998	6.416	1
2290 FUT8	ENST00000360689	p.P571A	c.1711	1.013303964	0	1
2290 FUT8	ENST00000360689	p.P571L	c.1712	1.013303964	0	1
2290 FUT8	ENST00000360689	p.Y197H	c.589	0.026607928	6.232	1
2291 APAF1	ENST00000551964	p.N485K	c.1455	0.053178983	0	1
2291 APAF1	ENST00000551964	p.K513N	c.1539	0.053178983	4.233	1
2292 MYH7	ENST00000355349	p.N479D	c.1435	0.009105791	0	1
2292 MYH7	ENST00000355349	p.I521M	c.1563	0.009105791	6.779	1

2294 CSF2RA	ENST00000417535	p.T230M	c.689	0.003925249	7.993	1
2294 CSF2RA	ENST00000417535	p.T231M	c.692	0.003052062	8.356	1
2294 CSF2RA	ENST00000417535	p.A290S	c.868	0.006977311	0	1
2295 C5	ENST00000223642	p.R766Q	c.2297	0.188523769	2.42	1
2295 C5	ENST00000223642	p.D822Y	c.2464	0.010592193	6.808	1
2295 C5	ENST00000223642	p.E921G	c.2762	0.195780736	0	1
2296 NAGK	ENST00000455662	p.I95N	c.284	0.001349836	0	1
2296 NAGK	ENST00000455662	p.A129V	c.386	0.001349836	9.533	1
2297 PC	ENST00000393958	p.M616I	c.1848	0.07411327	4.148	1
2297 PC	ENST00000393958	p.P623S	c.1867	0.046204104	4.515	1
2297 PC	ENST00000393958	p.S1009L	c.3026	0.100143354	0	1
2298 MSH6	ENST00000234420	p.S950I	c.2849	0.008332701	0	1
2298 MSH6	ENST00000234420	p.R976H	c.2927	0.008332701	6.907	1
2299 HAO1	ENST00000378789	p.E334K	c.1000	0.017039183	5.875	1
2299 HAO1	ENST00000378789	p.S72I	c.215	0.011280697	6.47	1
2299 HAO1	ENST00000378789	p.S100F	c.299	0.02831988	0	1
2300 WAPAL	ENST00000298767	p.R816Q	c.2447	0.149477475	0	1
2300 WAPAL	ENST00000298767	p.E867K	c.2599	0.149477475	2.742	1
2301 SETD2	ENST00000409792	p.M1627R	c.4880	0.380307784	5.609	1
2301 SETD2	ENST00000409792	p.H1629Y	c.4885	2.269144569	0	3
2301 SETD2	ENST00000409792	p.F1650V	c.4948	1.177831968	9.268	1
2301 SETD2	ENST00000409792	p.F1650S	c.4949	1.177831968	9.268	1
2301 SETD2	ENST00000409792	p.D1665V	c.4994	0.348411053	3.179	1
2301 SETD2	ENST00000409792	p.Y1666H	c.4996	0.596684188	2.889	1
2302 CLEC4M	ENST00000327325	p.P392L	c.1175	0.14288894	3.787	1
2302 CLEC4M	ENST00000327325	p.A393T	c.1177	0.137919814	2.959	1
2302 CLEC4M	ENST00000327325	p.R263H	c.788	0.065557363	7.819	1
2302 CLEC4M	ENST00000327325	p.G277R	c.829	0.205475232	0	1
2303 ENPEP	ENST00000265162	p.E378K	c.1132	0.014957367	6.063	1
2303 ENPEP	ENST00000265162	p.R386S	c.1158	0.020095273	5.637	1
2303 ENPEP	ENST00000265162	p.Q814H	c.2442	0.03505264	0	1
2304 KYNU	ENST00000264170	p.M134I	c.402	0.056932443	4.162	1
2304 KYNU	ENST00000264170	p.A136S	c.406	0.020240948	5.705	1
2304 KYNU	ENST00000264170	p.G287D	c.860	0.07503165	0	1
2305 MMP9	ENST00000372330	p.A225T	c.673	0.093765312	3.438	1
2305 MMP9	ENST00000372330	p.A228T	c.682	0.017705349	5.947	1
2305 MMP9	ENST00000372330	p.R267P	c.800	0.108479337	0	1
2306 GDA	ENST00000238018	p.R163W	c.487	1.02179287	0	1
2306 GDA	ENST00000238018	p.R163Q	c.488	1.02179287	0	1
2306 GDA	ENST00000238018	p.S204Y	c.611	0.04358574	5.52	1
2307 OXSR1	ENST00000311806	p.P244S	c.730	0.007694269	7.022	1
2307 OXSR1	ENST00000311806	p.I268L	c.802	0.007694269	0	1
2308 C5	ENST00000223642	p.E869K	c.2605	0.015420571	6.019	1
2308 C5	ENST00000223642	p.A1530V	c.4589	0.015420571	0	1
2309 LHCGR	ENST00000294954	p.T142M	c.425	0.045373696	4.462	1
2309 LHCGR	ENST00000294954	p.G166R	c.496	0.045373696	0	1
2310 HUWE1	ENST00000342160	p.P3981H	c.11942	0.095921631	0	1
2310 HUWE1	ENST00000342160	p.R4237H	c.12710	0.095921631	3.382	1
2312 FH	ENST00000366560	p.V416L	c.1246	0.016721734	0	1

2312 FH	ENST00000366560	p.H318R	c.953	0.01404266	7.272	1
2312 FH	ENST00000366560	p.A320T	c.958	0.01025165	6.608	1
2313 NCAM2	ENST00000400546	p.D131H	c.391	0.080269738	4.639	1
2313 NCAM2	ENST00000400546	p.Q172K	c.514	1.040134869	0	1
2313 NCAM2	ENST00000400546	p.Q172H	c.516	1.040134869	0	1
2314 IL5RA	ENST00000256452	p.G251E	c.752	0.152344632	8.232	1
2314 IL5RA	ENST00000256452	p.R253C	c.757	1.026154809	0	1
2314 IL5RA	ENST00000256452	p.R253H	c.758	1.026154809	0	1
2314 IL5RA	ENST00000256452	p.D300N	c.898	0.191350287	5.453	1
2315 B3GAT1	ENST00000537389	p.R117H	c.350	0.024113753	0	1
2315 B3GAT1	ENST00000537389	p.R326Q	c.977	0.024113753	5.374	1
2316 APPL2	ENST00000551662	p.M111V	c.331	0.014339623	8.874	1
2316 APPL2	ENST00000551662	p.M200I	c.600	0.030198011	0	1
2316 APPL2	ENST00000551662	p.M238I	c.714	0.028066637	5.155	1
2317 GHRHR	ENST00000326139	p.P66Q	c.197	0.121329309	0	1
2317 GHRHR	ENST00000326139	p.W101C	c.303	0.121329309	3.043	1
2318 CP	ENST00000264613	p.F92L	c.274	0.320911512	3.364	1
2318 CP	ENST00000264613	p.S191L	c.572	0.054126836	9.164	1
2318 CP	ENST00000264613	p.G195R	c.583	0.013399033	9.956	1
2318 CP	ENST00000264613	p.N263D	c.787	1.109427847	0	1
2318 CP	ENST00000264613	p.N263S	c.788	1.109427847	0	1
2318 CP	ENST00000264613	p.G264E	c.791	0.120233647	6.71	1
2319 CDKN2D	ENST00000335766	p.D104N	c.310	0.005605272	0	1
2319 CDKN2D	ENST00000335766	p.R135S	c.405	0.005605272	7.479	1
2320 XDH	ENST00000379416	p.P1013S	c.3037	1.121210729	0	1
2320 XDH	ENST00000379416	p.P1013H	c.3038	1.121210729	0	1
2320 XDH	ENST00000379416	p.P1073A	c.3217	0.023581552	6.917	1
2320 XDH	ENST00000379416	p.M1123I	c.3369	0.059646282	5.127	1
2320 XDH	ENST00000379416	p.D1124G	c.3371	0.171050744	3.568	1
2321 UPP1	ENST00000341253	p.G144R	c.430	0.251596357	0	1
2321 UPP1	ENST00000341253	p.Y227S	c.680	0.012837588	9.203	1
2321 UPP1	ENST00000341253	p.R245L	c.734	0.11246266	3.357	1
2321 UPP1	ENST00000341253	p.R275C	c.823	0.178306457	2.715	1
2322 MTMR6	ENST00000381801	p.Q433R	c.1298	0.096856991	3.368	1
2322 MTMR6	ENST00000381801	p.Y112C	c.335	0.096856991	0	1
2323 UBA2	ENST00000246548	p.S207Y	c.620	0.269694514	4.225	1
2323 UBA2	ENST00000246548	p.R237H	c.710	1.088746083	0	2
2323 UBA2	ENST00000246548	p.K257N	c.771	0.178573418	6.857	1
2323 UBA2	ENST00000246548	p.D261Y	c.781	0.054714505	5.23	1
2324 RAB21	ENST00000261263	p.R38C	c.112	0.151242257	0	1
2324 RAB21	ENST00000261263	p.K59N	c.177	0.023455527	6.108	1
2324 RAB21	ENST00000261263	p.Q165P	c.494	0.059278072	4.19	1
2324 RAB21	ENST00000261263	p.I169T	c.506	0.087634796	3.609	1
2325 CLEC4E	ENST00000299663	p.W101C	c.303	0.097058609	3.365	1
2325 CLEC4E	ENST00000299663	p.E177K	c.529	0.097058609	0	1
2326 SLBP	ENST00000318386	p.E136Q	c.406	0.005222658	7.581	1
2326 SLBP	ENST00000318386	p.D159N	c.475	0.005222658	0	1
2327 CCNA2	ENST00000274026	p.M189L	c.565	0.096856991	0	1
2327 CCNA2	ENST00000274026	p.P309R	c.926	0.096856991	3.368	1

2328	RAP1B	ENST00000250559	p.T35M	c.104	0.02086115	7.168	1
2328	RAP1B	ENST00000250559	p.S88F	c.263_264	0.030289519	6.63	1
2328	RAP1B	ENST00000250559	p.G12E	c.35	2.017050223	0	3
2329	DECR1	ENST00000220764	p.R91P	c.272	0.020025749	5.642	1
2329	DECR1	ENST00000220764	p.V118M	c.352	0.020025749	0	1
2330	LCMT1	ENST00000399069	p.P206A	c.616	0.005774853	7.436	1
2330	LCMT1	ENST00000399069	p.K259T	c.776	0.005774853	0	1
2331	F5	ENST00000367796	p.H390N	c.1168	0.022860488	5.451	1
2331	F5	ENST00000367796	p.K565T	c.1694	0.022860488	0	1
2332	RGN	ENST00000352078	p.G17D	c.50	0.152090295	2.717	1
2332	RGN	ENST00000352078	p.C262W	c.786	0.152090295	0	1
2333	CD180	ENST00000256447	p.S541G	c.1621	0.110337875	0	1
2333	CD180	ENST00000256447	p.Q568H	c.1704	0.110337875	3.18	1
2334	IKBKB	ENST00000520810	p.E398D	c.1194	0.005347202	0	1
2334	IKBKB	ENST00000520810	p.L612H	c.1835	0.005347202	7.547	1
2335	TBC1D20	ENST00000461304	p.H246N	c.736	0.166418832	0	1
2335	TBC1D20	ENST00000461304	p.F299C	c.896	0.096198697	3.485	1
2335	TBC1D20	ENST00000461304	p.P304S	c.910	0.083993262	3.697	1
2336	PARP1	ENST00000366794	p.R857Q	c.2570	0.034291623	0	1
2336	PARP1	ENST00000366794	p.V948I	c.2842	0.034291623	4.866	1
2337	PSAT1	ENST00000376588	p.D68Y	c.202	0.004459198	7.809	1
2337	PSAT1	ENST00000376588	p.A171T	c.511	0.020347565	5.619	1
2337	PSAT1	ENST00000376588	p.R213H	c.638	0.024806764	0	1
2339	KDM1B	ENST00000388870	p.V430I	c.1288	0.088193076	3.56	1
2339	KDM1B	ENST00000388870	p.A664D	c.1991	0.043568004	4.638	1
2339	KDM1B	ENST00000388870	p.V709M	c.2125	0.124950469	0	1
2340	GRM5	ENST00000305447	p.D258N	c.772	0.101089898	0	1
2340	GRM5	ENST00000305447	p.M290V	c.868	0.014611242	6.218	1
2340	GRM5	ENST00000305447	p.R292C	c.874	0.094920973	3.512	1
2341	P2RY6	ENST00000538328	p.R174H	c.521	0.141708677	2.819	1
2341	P2RY6	ENST00000538328	p.A280S	c.838	0.141708677	0	1
2342	CLIC2	ENST00000369449	p.L36R	c.107	0.079219533	0	1
2342	CLIC2	ENST00000369449	p.I86M	c.258	0.079219533	3.658	1
2343	CYP11A1	ENST00000268053	p.V213I	c.637	0.100203166	0	1
2343	CYP11A1	ENST00000268053	p.G300V	c.899	0.100203166	3.319	1
2344	XRCC6	ENST00000405878	p.Y71H	c.211	0.005310267	0	1
2344	XRCC6	ENST00000405878	p.I116S	c.347	0.005310267	7.557	1
2345	ELAC1	ENST00000269466	p.F173C	c.518	0.00768361	0	1
2345	ELAC1	ENST00000269466	p.R27W	c.79	0.00768361	7.024	1
2346	FOXM1	ENST00000342628	p.M242K	c.725	0.071412085	0	1
2346	FOXM1	ENST00000342628	p.N288S	c.863	0.064168097	3.962	1
2346	FOXM1	ENST00000342628	p.L318F	c.954	0.007243989	7.109	1
2347	DPP3	ENST00000531863	p.E384A	c.1151	0.011056204	6.499	1
2347	DPP3	ENST00000531863	p.R510W	c.1528	0.011056204	0	1
2348	ITGAM	ENST00000544665	p.S569N	c.1706	0.014437853	6.114	1
2348	ITGAM	ENST00000544665	p.F17L	c.51	0.014437853	0	1
2349	MAPK9	ENST00000343111	p.V54D	c.161	0.012686045	7.386	1
2349	MAPK9	ENST00000343111	p.H82Y	c.244	0.013461659	6.215	1
2349	MAPK9	ENST00000343111	p.E109K	c.325	0.019440162	0	1

2350 RRM2B	ENST00000522368	p.F95L	c.285	0.036099344	0	1
2350 RRM2B	ENST00000522368	p.E223Q	c.667	0.011135916	6.46	1
2351 ANG	ENST00000397990	p.V7I	c.19	1.011195013	0	2
2351 ANG	ENST00000397990	p.S111F	c.332	0.107885982	6.481	1
2352 PLA2G4A	ENST00000367466	p.E254K	c.760	0.033655824	0	1
2352 PLA2G4A	ENST00000367466	p.R307I	c.920	0.033655824	4.893	1
2353 GRM1	ENST00000282753	p.G234V	c.701	1.032447593	0	1
2353 GRM1	ENST00000282753	p.G234E	c.701_702	1.032447593	0	1
2353 GRM1	ENST00000282753	p.I261L	c.781	0.025120343	6.315	1
2353 GRM1	ENST00000282753	p.E292K	c.874	0.072715199	5.652	1
2354 DARS2	ENST00000361951	p.Q73K	c.217	0.006587743	7.246	1
2354 DARS2	ENST00000361951	p.F162L	c.486	0.006587743	0	1
2355 SETD7	ENST00000274031	p.R249Q	c.746	0.128247268	0	1
2355 SETD7	ENST00000274031	p.F313I	c.937	0.128247268	2.963	1
2356 HK3	ENST00000292432	p.T546M	c.1637	0.003217152	8.28	1
2356 HK3	ENST00000292432	p.D867Y	c.2599	0.003217152	0	1
2357 SYTL4	ENST00000454200	p.A363T	c.1087_1086	1.112815416	0	1
2357 SYTL4	ENST00000454200	p.A363D	c.1088	1.112815416	0	1
2357 SYTL4	ENST00000454200	p.F364L	c.1090	0.158459968	6.247	1
2357 SYTL4	ENST00000454200	p.H478L	c.1433	0.331425374	3.327	1
2358 HIF1A	ENST00000539097	p.V365I	c.1093	0.066985841	3.9	1
2358 HIF1A	ENST00000539097	p.L286S	c.857	0.066985841	0	1
2359 PRKCI	ENST00000295797	p.N336K	c.1008	0.161596856	3.848	1
2359 PRKCI	ENST00000295797	p.G338R	c.1012	0.16368156	2.814	1
2359 PRKCI	ENST00000295797	p.L386M	c.1156	0.217358655	0	1
2359 PRKCI	ENST00000295797	p.G548C	c.1642	0.079327277	7.856	1
2359 PRKCI	ENST00000295797	p.L549F	c.1647	0.022771331	9.483	1
2360 MSL3	ENST00000312196	p.A453T	c.1357	0.086389513	3.533	1
2360 MSL3	ENST00000312196	p.F498L	c.1494	0.086389513	0	1
2361 CAPN7	ENST00000253693	p.R691P	c.2072	0.156463855	0	1
2361 CAPN7	ENST00000253693	p.R732L	c.2195	0.148167734	3.968	1
2361 CAPN7	ENST00000253693	p.F769Y	c.2306	0.083699625	7.636	1
2361 CAPN7	ENST00000253693	p.L799M	c.2395	0.093128398	3.514	1
2362 ARID3A	ENST00000263620	p.L245V	c.733	0.06185612	0	1
2362 ARID3A	ENST00000263620	p.M274T	c.821	0.028915763	5.112	1
2362 ARID3A	ENST00000263620	p.L322M	c.964	0.032940357	4.924	1
2363 TYK2	ENST00000264818	p.R381L	c.1142	0.072580686	3.933	1
2363 TYK2	ENST00000264818	p.R565W	c.1693	0.176778465	0	1
2363 TYK2	ENST00000264818	p.G271C	c.811	0.027713438	8.525	1
2363 TYK2	ENST00000264818	p.G320V	c.959	0.140701205	3.203	1
2364 CYP2A6	ENST00000301141	p.R437W	c.1309	0.133219376	3.036	1
2364 CYP2A6	ENST00000301141	p.V116M	c.346	0.214603123	0	1
2364 CYP2A6	ENST00000301141	p.F267L	c.801	0.094264913	6.852	1
2364 CYP2A6	ENST00000301141	p.T295M	c.884	0.189504338	3.573	1
2365 SERPINB3	ENST00000283752	p.H220Y	c.658	0.081525366	0	1
2365 SERPINB3	ENST00000283752	p.S242N	c.725	0.003936148	7.989	1
2365 SERPINB3	ENST00000283752	p.R276S	c.828	0.077589218	3.688	1
2366 SIRT2	ENST00000249396	p.L341M	c.1021	0.020084419	5.935	1
2366 SIRT2	ENST00000249396	p.R153C	c.457	0.245119869	0	1

2366	SIRT2	ENST00000249396	p.G177W	c.529	0.232514134	2.128	1
2368	EFNA1	ENST00000368407	p.R139C	c.415	1.094666645	0	1
2368	EFNA1	ENST00000368407	p.R139H	c.416	1.094666645	0	1
2368	EFNA1	ENST00000368407	p.R33Q	c.98	0.189333289	3.401	1
2369	GALNT10	ENST00000297107	p.P364S	c.1090	0.100381056	0	1
2369	GALNT10	ENST00000297107	p.P264R	c.791	0.016537474	6.036	1
2369	GALNT10	ENST00000297107	p.D310Y	c.928	0.086438672	3.554	1
2370	PTPRC	ENST00000442510	p.P668S	c.2002	0.150517173	0	1
2370	PTPRC	ENST00000442510	p.D690N	c.2068	0.150517173	2.732	1
2371	HDAC3	ENST00000305264	p.Q52R	c.155	0.120435048	5.685	1
2371	HDAC3	ENST00000305264	p.R106C	c.316	0.084730347	9.301	1
2371	HDAC3	ENST00000305264	p.A110T	c.328	1.021023013	0	2
2372	TRAF6	ENST00000348124	p.G86S	c.256	0.016561762	5.916	1
2372	TRAF6	ENST00000348124	p.D120N	c.358	0.016561762	0	1
2373	TCN1	ENST00000257264	p.R106C	c.316	0.154774889	0	1
2373	TCN1	ENST00000257264	p.S307Y	c.920	0.059164148	4.218	1
2373	TCN1	ENST00000257264	p.C308W	c.924	0.106469477	3.307	1
2374	POFUT2	ENST00000349485	p.G401A	c.1202	0.004331253	7.851	1
2374	POFUT2	ENST00000349485	p.D263N	c.787	0.005497533	7.507	1
2374	POFUT2	ENST00000349485	p.G285W	c.853	0.009828785	0	1
2375	IL21R	ENST00000395755	p.R139H	c.416	0.050155154	4.563	1
2375	IL21R	ENST00000395755	p.E143K	c.427	0.131285423	2.989	1
2375	IL21R	ENST00000395755	p.R181I	c.542	0.168262541	0	1
2376	MPP1	ENST00000428488	p.E36K	c.106	0.078020659	0	1
2377	CHI3L2	ENST00000445067	p.F63C	c.188	0.00565993	8.465	1
2377	CHI3L2	ENST00000445067	p.L98I	c.292	1.098818107	0	2
2377	CHI3L2	ENST00000445067	p.G139A	c.416	0.196227231	3.381	1
2378	PVRL1	ENST00000264025	p.G44D	c.131	0.005255341	7.572	1
2378	PVRL1	ENST00000264025	p.R96C	c.286	0.005255341	0	1
2380	ROR2	ENST00000375708	p.R483Q	c.1448	0.32672249	7.371	1
2380	ROR2	ENST00000375708	p.S607F	c.1820	0.017531011	6.922	1
2380	ROR2	ENST00000375708	p.D672N	c.2014	1.140156944	0	2
2380	ROR2	ENST00000375708	p.P733S	c.2197	0.313568391	2.99	1
2381	POLG2	ENST00000539111	p.N272H	c.814	0.013313189	7.231	1
2381	POLG2	ENST00000539111	p.P294S	c.880	1.006656594	0	1
2381	POLG2	ENST00000539111	p.P294L	c.881	1.006656594	0	1
2382	TBP	ENST00000392092	p.R186C	c.556	1.020277342	0	2
2382	TBP	ENST00000392092	p.A211T	c.631	0.072678639	6.321	1
2382	TBP	ENST00000392092	p.V241A	c.722	0.015538596	7.008	1
2383	DICER1	ENST00000343455	p.V776F	c.2326	0.028183606	5.149	1
2383	DICER1	ENST00000343455	p.S828F	c.2483	0.028183606	0	1
2384	ITGAX	ENST00000562522	p.L528Q	c.1583	0.083083109	0	1
2384	ITGAX	ENST00000562522	p.Q592E	c.1774	0.038960515	5.364	1
2384	ITGAX	ENST00000562522	p.T615A	c.1843	0.073252414	4.088	1
2385	GFRA3	ENST00000274721	p.L163R	c.488	0.003107564	8.33	1
2385	GFRA3	ENST00000274721	p.D224N	c.670	0.003107564	0	1
2386	PASK	ENST00000358649	p.A1177T	c.3529	0.014043049	6.154	1
2386	PASK	ENST00000358649	p.V1217E	c.3650	0.014043049	0	1
2387	TTPA	ENST00000260116	p.W122C	c.366	0.053324216	4.317	1

2387	TTPA	ENST00000260116	p.I171M	c.513	0.113018623	0	1
2387	TTPA	ENST00000260116	p.V206A	c.617	0.066000665	3.992	1
2388	CAPNS1	ENST00000587718	p.R145H	c.434	0.066292984	3.915	1
2389	JAG1	ENST00000254958	p.E38D	c.114	0.008026574	6.961	1
2389	JAG1	ENST00000254958	p.S41F	c.122	0.006712193	7.219	1
2389	JAG1	ENST00000254958	p.LK170in_frame_del	c.514_509	0.014738767	0	1
2390	NOTCH1	ENST00000277541	p.L1920P	c.5759	0.076179452	3.742	1
2390	NOTCH1	ENST00000277541	p.N1922S	c.5765	0.020717389	5.697	1
2390	NOTCH1	ENST00000277541	p.S1951N	c.5852	0.094015412	0	1
2391	IL2	ENST00000226730	p.E82K	c.244	0.03636963	0	1
2391	IL2	ENST00000226730	p.R103M	c.308	0.008680537	6.848	1
2391	IL2	ENST00000226730	p.T131K	c.392	0.007704943	7.02	1
2391	IL2	ENST00000226730	p.R140I	c.419	0.01998415	5.645	1
2392	PFN2	ENST00000498307	p.G74R	c.220	0.070121468	3.834	1
2392	PFN2	ENST00000498307	p.V31F	c.91	0.079070826	0	1
2393	CD40LG	ENST00000370629	p.A123V	c.368	0.045879707	4.446	1
2393	CD40LG	ENST00000370629	p.A124S	c.370	0.009739072	6.682	1
2393	CD40LG	ENST00000370629	p.N150K	c.450	0.055618779	0	1
2394	GABBR2	ENST00000259455	p.G113E	c.338	0.068203992	3.874	1
2394	GABBR2	ENST00000259455	p.V138A	c.413	0.068203992	0	1
2395	KAL1	ENST00000262648	p.R506W	c.1516	1	0	1
2395	KAL1	ENST00000262648	p.R506Q	c.1517	1	0	1
2396	ASH2L	ENST00000343823	p.V485I	c.1453	0.051474439	4.28	1
2396	ASH2L	ENST00000343823	p.K583N	c.1749	0.051474439	0	1
2397	PLA2G4A	ENST00000367466	p.N555T	c.1664	0.163535805	0	1
2397	PLA2G4A	ENST00000367466	p.G196V	c.587	0.150417783	2.755	1
2397	PLA2G4A	ENST00000367466	p.A201T	c.601	0.025949804	6.021	1
2398	PLA2G7	ENST00000274793	p.P57L	c.170	0.016700094	5.904	1
2398	PLA2G7	ENST00000274793	p.L96I	c.286	0.038794609	4.688	1
2398	PLA2G7	ENST00000274793	p.T130A	c.388	0.055494703	0	1
2399	IFIT1	ENST00000371804	p.R255Q	c.764	0.008584799	6.864	1
2399	IFIT1	ENST00000371804	p.K276Q	c.826	0.008584799	0	1
2400	HSD17B14	ENST00000263278	p.E100D	c.300	0.086030975	3.539	1
2400	HSD17B14	ENST00000263278	p.R130Q	c.389	0.086030975	0	1
2401	ITGA5	ENST00000293379	p.R119W	c.355	0.012310217	0	1
2401	ITGA5	ENST00000293379	p.Y246C	c.737	0.012310217	6.344	1
2402	PTPRM	ENST00000400060	p.A893T	c.2677	0.109664844	3.406	1
2402	PTPRM	ENST00000400060	p.I894T	c.2681	0.123284608	3.221	1
2402	PTPRM	ENST00000400060	p.R895W	c.2683	0.066336157	4.179	1
2402	PTPRM	ENST00000400060	p.V1134A	c.3401	0.25679263	0	1
2403	ENPEP	ENST00000265162	p.P545R	c.1634	0.116629124	3.1	1
2403	ENPEP	ENST00000265162	p.R628C	c.1882	0.116629124	0	1
2404	HDC	ENST00000267845	p.G221E	c.662	0.004629269	7.755	1
2404	HDC	ENST00000267845	p.E229K	c.685	0.015711884	5.992	1
2404	HDC	ENST00000267845	p.R265H	c.794	0.020341153	0	1
2405	FGFR2	ENST00000457416	p.M538I	c.1614	0.022127741	5.498	1
2405	FGFR2	ENST00000457416	p.H545Q	c.1635	0.024647607	6.028	1
2405	FGFR2	ENST00000457416	p.L618F	c.1854	0.037452413	0	1
2406	PARN	ENST00000437198	p.M428I	c.1284	0.004629269	0	1

2406 PARN	ENST00000437198	p.S309R	c.925	0.004629269	7.755	1
2407 TRAPPC4	ENST00000533058	p.K41N	c.123	0.005459558	0	1
2407 TRAPPC4	ENST00000533058	p.L86M	c.256	0.005459558	7.517	1
2408 TUSC3	ENST00000503731	p.S115F	c.344	0.244420785	0	1
2408 TUSC3	ENST00000503731	p.Y118D	c.352	0.082706207	6.635	1
2408 TUSC3	ENST00000503731	p.V192I	c.574	0.109131494	3.383	1
2408 TUSC3	ENST00000503731	p.F193L	c.577	0.224425003	2.852	1
2409 BCHE	ENST00000264381	p.R375I	c.1124	0.160473174	0	1
2409 BCHE	ENST00000264381	p.D407Y	c.1219	0.150942641	2.744	1
2409 BCHE	ENST00000264381	p.R409I	c.1226	0.012875018	6.48	1
2410 RBPJ	ENST00000342295	p.G375R	c.1123	0.138504043	2.852	1
2410 RBPJ	ENST00000342295	p.E399K	c.1195	0.138504043	0	1
2411 IFIH1	ENST00000263642	p.K351E	c.1051	0.011249463	6.474	1
2411 IFIH1	ENST00000263642	p.R386C	c.1156	0.011249463	0	1
2412 RND1	ENST00000309739	p.S85L	c.254	0.01020203	6.615	1
2412 RND1	ENST00000309739	p.A87V	c.260	0.025035267	5.384	1
2412 RND1	ENST00000309739	p.C14F	c.41	0.079585858	0	1
2412 RND1	ENST00000309739	p.S184T	c.550	0.046524721	4.46	1
2413 TH	ENST00000381178	p.R481H	c.1442	0.013696964	6.19	1
2413 TH	ENST00000381178	p.S487F	c.1460	0.051189794	4.288	1
2413 TH	ENST00000381178	p.V488M	c.1462	0.014431398	7.083	1
2413 TH	ENST00000381178	p.H522Y	c.1564	0.07226248	0	1
2414 MYBPC1	ENST00000452455	p.R338T	c.1013	0.21733614	0	1
2414 MYBPC1	ENST00000452455	p.K266N	c.798	0.21733614	2.202	1
2415 NCF2	ENST00000367535	p.R246H	c.737	0.049343368	4.341	1
2415 NCF2	ENST00000367535	p.L288F	c.862	0.049343368	0	1
2416 MAOB	ENST00000378069	p.N336S	c.1007	0.014548585	9.785	1
2416 MAOB	ENST00000378069	p.V371I	c.1111	0.100920765	0	1
2416 MAOB	ENST00000378069	p.H90Y	c.268	0.016584998	6.031	1
2416 MAOB	ENST00000378069	p.P304R	c.911	0.099201672	3.565	1
2417 UPF1	ENST00000599848	p.R433K	c.1298	0.026241609	5.252	1
2417 UPF1	ENST00000599848	p.Q651K	c.1951	0.026241609	0	1
2418 CHI3L2	ENST00000445067	p.Y336C	c.1007	0.01531984	0	1
2418 CHI3L2	ENST00000445067	p.L379I	c.1135	0.006853231	7.189	1
2418 CHI3L2	ENST00000445067	p.K315N	c.945	0.008466609	6.884	1
2419 TBL1XR1	ENST00000457928	p.C490S	c.1469	0.096388177	0	1
2419 TBL1XR1	ENST00000457928	p.W177C	c.531	0.096388177	3.375	1
2420 ACSM2A	ENST00000424070	p.A93T	c.277	0.0465847	4.424	1
2420 ACSM2A	ENST00000424070	p.V122M	c.364	0.0465847	0	1
2421 ERI3	ENST00000372257	p.C155R	c.463	0.078345814	3.674	1
2421 ERI3	ENST00000372257	p.F199L	c.597	0.078345814	0	1
2422 EHMT1	ENST00000460843	p.A780T	c.2338	0.07062711	4.101	1
2422 EHMT1	ENST00000460843	p.P809L	c.2426	0.070843036	0	1
2422 EHMT1	ENST00000460843	p.A837T	c.2509	0.012568881	6.314	1
2423 CYP1A1	ENST00000567032	p.S363Y	c.1088	0.003778423	8.048	1
2423 CYP1A1	ENST00000567032	p.A438V	c.1313	0.003778423	0	1
2424 HIST1H1B	ENST00000331442	p.A177V	c.530	0.022530139	5.472	1
2424 HIST1H1B	ENST00000331442	p.A206T	c.616	0.022530139	0	1
2425 TDP1	ENST00000393454	p.A383T	c.1147	0.013175486	0	1

2425	TDP1	ENST00000393454	p.P545L	c.1634	0.013175486	6.246	1
2426	DDX41	ENST00000330503	p.E435K	c.1303	0.007583082	0	1
2426	DDX41	ENST00000330503	p.K556E	c.1666	0.007583082	7.043	1
2427	MCTS1	ENST00000371315	p.E58K	c.172	0.005463344	7.516	1
2427	MCTS1	ENST00000371315	p.F105S	c.314	0.009271381	6.753	1
2428	RAB9B	ENST00000243298	p.C82Y	c.245	0.1016724	3.298	1
2428	RAB9B	ENST00000243298	p.K9T	c.26	0.1016724	0	1
2429	FGFR2	ENST00000457416	p.R626Q	c.1877	0.505842144	2.739	1
2429	FGFR2	ENST00000457416	p.D656G	c.1967	0.077459796	9.777	1
2429	FGFR2	ENST00000457416	p.K660E	c.1978	2.158248129	0	2
2429	FGFR2	ENST00000457416	p.K660N	c.1980	2.158248129	0	1
2429	FGFR2	ENST00000457416	p.R665W	c.1993	1.035412975	8.094	2
2430	PTK2	ENST00000519419	p.H85Y	c.253	0.008032139	6.96	1
2430	PTK2	ENST00000519419	p.R130C	c.388	0.07932943	3.656	1
2430	PTK2	ENST00000519419	p.K165I	c.494	0.08736157	0	1
2431	RQCD1	ENST00000273064	p.L82F	c.246	0.60880272	2.803	1
2431	RQCD1	ENST00000273064	p.S87P	c.259	0.934521876	2.157	1
2431	RQCD1	ENST00000273064	p.N88K	c.264	0.107232294	5.348	1
2431	RQCD1	ENST00000273064	p.P131L	c.392	3.392063329	0	4
2432	GRB10	ENST00000398812	p.S503F	c.1508	0.019573304	5.797	1
2432	GRB10	ENST00000398812	p.H504Q	c.1512	0.089853431	3.502	1
2432	GRB10	ENST00000398812	p.I539M	c.1617	0.106251674	0	1
2433	TTR	ENST00000237014	p.T79I	c.236	0.029584801	5.079	1
2433	TTR	ENST00000237014	p.S120Y	c.359	0.016992006	5.879	1
2433	TTR	ENST00000237014	p.E19D	c.57	0.046576807	0	1
2434	PAX5	ENST00000358127	p.P93Q	c.279_278	0.001804732	9.114	1
2434	PAX5	ENST00000358127	p.E97D	c.291	0.001411065	9.469	1
2434	PAX5	ENST00000358127	p.P130S	c.388	0.003215796	0	1
2435	U2AF2	ENST00000308924	p.G176E	c.527	1.025984897	0	1
2435	U2AF2	ENST00000308924	p.G176V	c.527	1.025984897	0	1
2435	U2AF2	ENST00000308924	p.Q222H	c.666	0.138755112	5.392	1
2435	U2AF2	ENST00000308924	p.K292N	c.876	0.095465855	8.848	1
2436	PPP2R1A	ENST00000322088	p.R498H	c.1493	0.184539301	2.438	1
2436	PPP2R1A	ENST00000322088	p.D531H	c.1591	0.184539301	0	1
2437	ENPEP	ENST00000265162	p.G202E	c.605	0.130387294	7.747	1
2437	ENPEP	ENST00000265162	p.S230Y	c.689	0.197970483	4.701	1
2437	ENPEP	ENST00000265162	p.F289C	c.866	1.043101615	0	2
2438	TBC1D4	ENST00000377636	p.Q946H	c.2838	0.027872766	5.165	1
2438	TBC1D4	ENST00000377636	p.D1037V	c.3110	0.027872766	0	1
2439	SEC23A	ENST00000307712	p.A351T	c.1051	0.010987447	6.508	1
2439	SEC23A	ENST00000307712	p.R262H	c.785	0.019825841	0	1
2439	SEC23A	ENST00000307712	p.P298L	c.893	0.008838394	6.822	1
2440	SATB2	ENST00000260926	p.L504M	c.1510_1509	0.222364748	0	1
2440	SATB2	ENST00000260926	p.S560P	c.1678	0.222364748	2.169	1
2441	TSTA3	ENST00000425753	p.R214W	c.640	0.110717591	0	1
2441	TSTA3	ENST00000425753	p.V250I	c.748	0.103593113	3.271	1
2441	TSTA3	ENST00000425753	p.T273I	c.818	0.007124478	7.133	1
2442	ST14	ENST00000278742	p.S644F	c.1931	0.068827471	4.26	1
2442	ST14	ENST00000278742	p.H656P	c.1967	0.141846194	2.891	1

2442	ST14	ENST00000278742	p.E813G	c.2438	0.187003049	0	1
2443	DYSF	ENST00000410020	p.P45L	c.134	0.12982166	3.085	1
2443	DYSF	ENST00000410020	p.S117W	c.350	0.061488269	4.336	1
2444	CUBN	ENST00000377833	p.A1098V	c.3293	0.005151459	0	1
2444	CUBN	ENST00000377833	p.F1123L	c.3369	0.003332914	8.229	1
2444	CUBN	ENST00000377833	p.D1149Y	c.3445	0.001818545	9.103	1
2445	CYP2A13	ENST00000330436	p.P75S	c.223	1.042367817	0	1
2445	CYP2A13	ENST00000330436	p.P75L	c.224	1.042367817	0	1
2445	CYP2A13	ENST00000330436	p.E103K	c.307	0.02674852	7.317	1
2445	CYP2A13	ENST00000330436	p.S225L	c.674	0.079204659	4.792	1
2446	PRKCC	ENST00000263125	p.R233S	c.699	0.271307343	1.882	1
2446	PRKCC	ENST00000263125	p.D263N	c.787	0.271307343	0	1
2447	H2AFY2	ENST00000373255	p.F272C	c.815	0.012849868	0	1
2447	H2AFY2	ENST00000373255	p.V309I	c.925	0.007416735	7.075	1
2447	H2AFY2	ENST00000373255	p.A310T	c.928	0.005433133	7.524	1
2448	KEAP1	ENST00000171111	p.F139L	c.417	0.099364174	6.902	1
2448	KEAP1	ENST00000171111	p.I145F	c.433	1.109541908	0	2
2448	KEAP1	ENST00000171111	p.V167F	c.499	0.285001467	3.305	1
2449	MME	ENST00000360490	p.L367I	c.1099	0.127358682	6.86	1
2449	MME	ENST00000360490	p.F375C	c.1124	0.204909587	0	1
2449	MME	ENST00000360490	p.D163G	c.488	0.200219024	3.786	1
2449	MME	ENST00000360490	p.G196W	c.586	0.030975874	5.239	1
2449	MME	ENST00000360490	p.K197E	c.589	0.106960926	3.361	1
2450	RYR2	ENST00000360064	p.R174G	c.520	1.027902569	0	1
2450	RYR2	ENST00000360064	p.R174Q	c.521	1.027902569	0	1
2450	RYR2	ENST00000360064	p.V175A	c.524	0.106543637	9.172	1
2450	RYR2	ENST00000360064	p.V212L	c.634	0.121024791	5.256	1
2451	MAP2K6	ENST00000590474	p.A189S	c.565	0.121231361	0	1
2451	MAP2K6	ENST00000590474	p.A325P	c.973	0.103920034	3.294	1
2451	MAP2K6	ENST00000590474	p.L332I	c.994	0.021242022	5.697	1
2452	MUTYH	ENST00000450313	p.R245H	c.734	0.138476785	3.928	1
2452	MUTYH	ENST00000450313	p.R307W	c.919	1.065698307	0	2
2453	CUL4A	ENST00000375440	p.L462F	c.1384	0.074039684	4.04	1
2453	CUL4A	ENST00000375440	p.L573F	c.1719	0.111909813	0	1
2453	CUL4A	ENST00000375440	p.Q673E	c.2017	0.064367628	4.29	1
2454	PDE8A	ENST00000394553	p.P730S	c.2188	0.060538637	4.046	1
2454	PDE8A	ENST00000394553	p.H805R	c.2414	0.060538637	0	1
2455	L3MBTL2	ENST00000216237	p.A436V	c.1307	0.006707542	7.22	1
2455	L3MBTL2	ENST00000216237	p.W510L	c.1529	0.006707542	0	1
2456	PPT1	ENST00000433473	p.R209L	c.626	1.012413038	0	1
2456	PPT1	ENST00000433473	p.R209Q	c.626	1.012413038	0	1
2456	PPT1	ENST00000433473	p.R268H	c.803	0.024826075	6.332	1
2457	GGPS1	ENST00000476121	p.A191D	c.572	0.002837822	8.461	1
2457	GGPS1	ENST00000476121	p.S214L	c.641	0.002837822	0	1
2458	CASP3	ENST00000517513	p.F114V	c.340	0.242396936	3.132	1
2458	CASP3	ENST00000517513	p.L118I	c.352	0.175032435	2.793	1
2458	CASP3	ENST00000517513	p.F143S	c.428	0.13097239	6.451	1
2458	CASP3	ENST00000517513	p.Q161L	c.482	0.357382073	0	1
2459	ANK1	ENST00000396942	p.E1012K	c.3034	0.093882495	0	1

2459	ANK1	ENST00000396942	p.P1060L	c.3179	0.093882495	3.413	1
2460	TTK	ENST00000369798	p.H581Q	c.1743	0.075834598	3.721	1
2460	TTK	ENST00000369798	p.T637R	c.1910	0.075834598	0	1
2461	TOPBP1	ENST00000260810	p.N565D	c.1693	1.037343475	0	2
2461	TOPBP1	ENST00000260810	p.L670H	c.2009	0.07468695	4.743	1
2462	STAM	ENST00000377524	p.G212V	c.635	0.022127741	5.498	1
2462	STAM	ENST00000377524	p.R213Q	c.638	0.031539918	5.534	1
2462	STAM	ENST00000377524	p.D241G	c.722	0.043710154	0	1
2463	FOKK2	ENST00000335255	p.A337D	c.1010	0.051723327	8.083	1
2463	FOKK2	ENST00000335255	p.P259L	c.776	0.210663735	3.588	1
2463	FOKK2	ENST00000335255	p.R307C	c.919	1.086845926	0	1
2463	FOKK2	ENST00000335255	p.R307H	c.920	1.086845926	0	1
2464	RAB11A	ENST00000261890	p.A79E	c.236	0.009950605	6.651	1
2464	RAB11A	ENST00000261890	p.D111Y	c.331	0.009950605	0	1
2465	PVRL4	ENST00000368012	p.L81R	c.242	0.004316268	7.856	1
2465	PVRL4	ENST00000368012	p.G110S	c.328	0.004316268	0	1
2466	TJP1	ENST00000356107	p.L418F	c.1252	0.059539875	4.07	1
2466	TJP1	ENST00000356107	p.K458M	c.1373	0.059539875	0	1
2467	DPP4	ENST00000360534	p.T401N	c.1202	0.039076044	0	1
2467	DPP4	ENST00000360534	p.G424E	c.1271	0.026515872	5.237	1
2467	DPP4	ENST00000360534	p.Y585H	c.1753	0.027048149	6.315	1
2468	FN1	ENST00000354785	p.I572N	c.1715	0.020263118	0	1
2468	FN1	ENST00000354785	p.G593F	c.1778_1777	0.020263118	5.625	1
2469	IDE	ENST00000265986	p.G339R	c.1015	0.103488922	0	1
2469	IDE	ENST00000265986	p.P525S	c.1573	0.025476222	5.959	1
2469	IDE	ENST00000265986	p.Y609H	c.1825	0.09681431	3.516	1
2470	STARD5	ENST00000302824	p.F176L	c.528	0.005193778	0	1
2470	STARD5	ENST00000302824	p.R199Q	c.596	0.005193778	7.589	1
2471	SCMH1	ENST00000326197	p.R87H	c.260	0.141134857	2.878	1
2471	SCMH1	ENST00000326197	p.D100N	c.298	0.042629659	4.736	1
2471	SCMH1	ENST00000326197	p.P181S	c.541	0.173555412	0	1
2472	KARS	ENST00000319410	p.R159T	c.476	0.032462688	6.042	1
2472	KARS	ENST00000319410	p.H161Y	c.481	0.283107998	2.847	1
2472	KARS	ENST00000319410	p.R206W	c.616	1.175954444	0	1
2472	KARS	ENST00000319410	p.R206L	c.617	1.175954444	0	1
2472	KARS	ENST00000319410	p.M240I	c.720	0.046614619	5.52	1
2473	SUN2	ENST00000405018	p.V617A	c.1850	0.06763904	0	1
2473	SUN2	ENST00000405018	p.R729C	c.2185	0.06763904	3.886	1
2474	GNB1	ENST00000378609	p.R19L	c.56	0.005937206	7.396	1
2474	GNB1	ENST00000378609	p.A21S	c.61	0.012988673	6.671	1
2474	GNB1	ENST00000378609	p.D258N	c.772	0.015750819	0	1
2475	TLL1	ENST00000507499	p.A149T	c.445	0.173188236	4.065	1
2475	TLL1	ENST00000507499	p.R152T	c.455	1.336917401	2.612	1
2475	TLL1	ENST00000507499	p.R152S	c.456	1.336917401	2.612	1
2475	TLL1	ENST00000507499	p.E280K	c.838	1.388931404	0	2
2475	TLL1	ENST00000507499	p.E283Q	c.847	0.063771642	8.937	1
2476	PTK2	ENST00000519419	p.D962G	c.2885	0.066754088	3.905	1
2476	PTK2	ENST00000519419	p.T1093M	c.3278	0.066754088	0	1
2477	FGB	ENST00000302068	p.G380D	c.1139	0.014256167	6.492	1

2477 FGB	ENST00000302068	p.A382V	c.1145	0.145618617	5.348	1
2477 FGB	ENST00000302068	p.H438N	c.1312	0.210564119	2.943	1
2477 FGB	ENST00000302068	p.A439T	c.1315	0.296903391	2.707	1
2477 FGB	ENST00000302068	p.R47Q	c.140	0.025231516	8.428	1
2477 FGB	ENST00000302068	p.M468I	c.1404	0.326077803	0	1
2477 FGB	ENST00000302068	p.K471N	c.1413	0.021708664	9.373	1
2477 FGB	ENST00000302068	p.G472E	c.1415	0.05563636	8.471	1
2478 SENP2	ENST00000296257	p.A392V	c.1175	0.110386419	3.219	1
2478 SENP2	ENST00000296257	p.Q403E	c.1207	0.030844777	5.166	1
2478 SENP2	ENST00000296257	p.Q586P	c.1757	0.135248547	0	1
2479 LMO2	ENST00000257818	p.R146Q	c.437	0.099022544	6.995	1
2479 LMO2	ENST00000257818	p.R171C	c.511	1.017908175	0	1
2479 LMO2	ENST00000257818	p.R171H	c.512	1.017908175	0	1
2479 LMO2	ENST00000257818	p.G201A	c.602	0.025956156	6.634	1
2480 HBE1	ENST00000380237	p.L69P	c.206	0.032849153	0	1
2480 HBE1	ENST00000380237	p.N20S	c.59	0.032849153	4.928	1
2481 BTK	ENST00000308731	p.R490C	c.1468	0.123217055	4.052	1
2481 BTK	ENST00000308731	p.H491D	c.1471	1.045149242	5.512	1
2481 BTK	ENST00000308731	p.H491Y	c.1471	1.045149242	5.512	1
2481 BTK	ENST00000308731	p.S592F	c.1775	1.104115488	0	2
2482 GBE1	ENST00000429644	p.R156C	c.466	0.00309896	0	1
2482 GBE1	ENST00000429644	p.K294N	c.882	0.00309896	8.334	1
2483 TTK	ENST00000369798	p.D566G	c.1697	0.355703265	5.184	1
2483 TTK	ENST00000369798	p.E571K	c.1711	1.524337253	0	2
2483 TTK	ENST00000369798	p.M600I	c.1800	0.242261088	3.323	1
2483 TTK	ENST00000369798	p.G666R	c.1996	1.297848228	3.435	1
2483 TTK	ENST00000369798	p.G666E	c.1997	1.297848228	3.435	1
2483 TTK	ENST00000369798	p.A668E	c.2003	0.614109715	2.238	1
2484 CYP2E1	ENST00000252945	p.L382R	c.1145	0.119701993	3.271	1
2484 CYP2E1	ENST00000252945	p.T69R	c.206	0.083841753	3.884	1
2484 CYP2E1	ENST00000252945	p.L32V	c.94	0.171325986	0	1
2485 TP53BP2	ENST00000343537	p.L72F	c.214	0.025164312	0	1
2485 TP53BP2	ENST00000343537	p.T13I	c.38	0.022158438	5.496	1
2485 TP53BP2	ENST00000343537	p.V14L	c.40	0.003005873	8.378	1
2486 ALAD	ENST00000409155	p.N27S	c.80	0.019077289	5.712	1
2486 ALAD	ENST00000409155	p.R308S	c.922	0.019077289	0	1
2487 S100A3	ENST00000368713	p.R51Q	c.152	0.094797972	4.399	1
2487 S100A3	ENST00000368713	p.P97S	c.289	1.047398986	0	2
2488 TPT1	ENST00000309246	p.E86K	c.256	0.024130473	5.373	1
2488 TPT1	ENST00000309246	p.L126F	c.376	0.024130473	0	1
2489 SEC24A	ENST00000398844	p.P421L	c.1262	0.023179134	6.422	1
2489 SEC24A	ENST00000398844	p.D688N	c.2062	0.176743349	2.517	1
2489 SEC24A	ENST00000398844	p.Y738H	c.2212	0.186368203	0	1
2490 ARHGFE1	ENST00000599846	p.E547in_frame_del	c.1636_1638	0.01880161	5.733	1
2490 ARHGFE1	ENST00000599846	p.E637K	c.1909	0.01880161	0	1
2491 ASPA	ENST00000263080	p.D104G	c.311	0.062243957	0	1
2491 ASPA	ENST00000263080	p.I170T	c.509	0.0476956	4.39	1
2491 ASPA	ENST00000263080	p.A171S	c.511	0.014548357	6.103	1
2492 ELANE	ENST00000263621	p.W156L	c.467	0.083273427	0	1

2492	ELANE	ENST00000263621	p.V207I	c.619	0.083273427	3.586	1
2493	GGT1	ENST00000406383	p.S451L	c.1352	0.181224972	2.512	1
2493	GGT1	ENST00000406383	p.R107H	c.320	0.209038289	0	1
2493	GGT1	ENST00000406383	p.V134E	c.401	0.039638448	4.89	1
2494	TUSC3	ENST00000503731	p.R74L	c.221	2.202329592	0	1
2494	TUSC3	ENST00000503731	p.R74P	c.221	2.202329592	0	1
2494	TUSC3	ENST00000503731	p.R74Q	c.221	2.202329592	0	1
2494	TUSC3	ENST00000503731	p.V139I	c.415	1.135228667	4.526	2
2494	TUSC3	ENST00000503731	p.R170T	c.509	0.224904857	3.799	1
2494	TUSC3	ENST00000503731	p.G172E	c.515	0.137958812	4.517	1
2495	BAX	ENST00000356483	p.P88F	c.262_263	0.261068824	2.439	1
2495	BAX	ENST00000356483	p.R89Q	c.266	0.20726702	2.619	1
2495	BAX	ENST00000356483	p.F93L	c.279	0.119738203	3.492	1
2495	BAX	ENST00000356483	p.P157S	c.469	0.035826485	7.486	1
2496	RARA	ENST00000394086	p.S230L	c.689	0.030394736	5.149	1
2496	RARA	ENST00000394086	p.E231G	c.692	0.08066563	3.672	1
2496	RARA	ENST00000394086	p.N315S	c.944	0.106638105	0	1
2497	PAX8	ENST00000348715	p.K82N	c.246	0.065607293	3.93	1
2497	PAX8	ENST00000348715	p.N119D	c.355	0.065607293	0	1
2499	PRDX5	ENST00000265462	p.E69K	c.205	0.097869287	0	1
2499	PRDX5	ENST00000265462	p.A114D	c.341	0.097869287	3.353	1
2500	IRF3	ENST00000601291	p.S231F	c.692	0.01880161	5.733	1
2500	IRF3	ENST00000601291	p.T244R	c.731	0.007954572	6.974	1
2500	IRF3	ENST00000601291	p.L268M	c.802	0.026756182	0	1
2501	GLA	ENST00000493905	p.R105K	c.314	0.126723165	3.732	1
2501	GLA	ENST00000493905	p.R118C	c.352	0.17119158	2.651	1
2501	GLA	ENST00000493905	p.D155H	c.463	0.072396817	8.439	1
2501	GLA	ENST00000493905	p.D161N	c.481	0.237349699	0	1
2502	PDK4	ENST00000005178	p.R124Q	c.371	1.065516405	0	2
2502	PDK4	ENST00000005178	p.M173I	c.519	0.131032809	3.932	1
2503	SETD3	ENST00000331768	p.T428I	c.1283	0.117933461	0	1
2503	SETD3	ENST00000331768	p.A482V	c.1445	0.024763502	5.467	1
2503	SETD3	ENST00000331768	p.R486Q	c.1457	0.097480247	3.391	1
2505	PIK3CG	ENST00000496166	p.W212C	c.636	0.048227505	4.374	1
2505	PIK3CG	ENST00000496166	p.D238N	c.712	0.048227505	0	1
2506	SERPINA12	ENST00000556881	p.P263H	c.788	0.016827912	5.893	1
2506	SERPINA12	ENST00000556881	p.R301H	c.902	0.016827912	0	1
2507	FOLH1	ENST00000256999	p.S517Y	c.1550	0.093160495	5.112	1
2507	FOLH1	ENST00000256999	p.G702R	c.2104	1.028915763	0	2
2508	CDC37	ENST00000222005	p.V152M	c.454	0.132954084	0	1
2508	CDC37	ENST00000222005	p.Y189D	c.565	0.132954084	2.911	1
2509	TGFBR1	ENST00000552516	p.S420F	c.1259	0.089126607	3.488	1
2509	TGFBR1	ENST00000552516	p.T300I	c.899	0.089126607	0	1
2510	PEX5	ENST00000412720	p.P504S	c.1510	0.011646175	7.424	1
2510	PEX5	ENST00000412720	p.E571K	c.1711	0.284007316	2.816	1
2510	PEX5	ENST00000412720	p.P613L	c.1838	1.147826746	0	2
2511	FLT1	ENST00000282397	p.A1025G	c.3074	0.155539345	2.713	1
2511	FLT1	ENST00000282397	p.D1052N	c.3154	0.02287289	5.655	1
2511	FLT1	ENST00000282397	p.E1091K	c.3271	0.172358673	0	1

2512	MTRR	ENST00000264668	p.M683I	c.2049	0.047563543	4.394	1
2512	MTRR	ENST00000264668	p.I723T	c.2168	0.047563543	0	1
2513	KDM6B	ENST00000254846	p.L1181P	c.3542	0.077160163	3.696	1
2513	KDM6B	ENST00000254846	p.Y1445C	c.4334	0.077160163	0	1
2514	C3	ENST00000245907	p.R679Q	c.2036	0.027718635	0	1
2514	C3	ENST00000245907	p.E700Q	c.2098	0.027718635	5.173	1
2515	CSF1R	ENST00000286301	p.Y360C	c.1079	0.09460002	3.528	1
2515	CSF1R	ENST00000286301	p.N302H	c.904	0.099162585	3.454	1
2515	CSF1R	ENST00000286301	p.V325M	c.973	0.177941436	0	1
2516	CTSG	ENST00000216336	p.A36V	c.107	0.074376981	0	1
2516	CTSG	ENST00000216336	p.D57N	c.169	0.074376981	3.749	1
2517	FBXW7	ENST00000603548	p.D642G	c.1925	0.236340355	4.718	1
2517	FBXW7	ENST00000603548	p.G669V	c.2006	0.055166593	9.149	1
2517	FBXW7	ENST00000603548	p.R689W	c.2065	4.039757703	0	4
2517	FBXW7	ENST00000603548	p.R689Q	c.2066	4.039757703	0	1
2518	CRYBA4	ENST00000354760	p.A98S	c.292	0.04923925	7.809	1
2518	CRYBA4	ENST00000354760	p.C99F	c.296	0.210397176	0	1
2518	CRYBA4	ENST00000354760	p.G147V	c.440	0.116949094	3.233	1
2518	CRYBA4	ENST00000354760	p.D167N	c.499	0.154951191	3.328	1
2519	BAG5	ENST00000337322	p.E350K	c.1048	0.014298425	6.128	1
2519	BAG5	ENST00000337322	p.M327I	c.981	0.014298425	0	1
2520	PASK	ENST00000358649	p.K1031R	c.3092	0.097282455	3.478	1
2520	PASK	ENST00000358649	p.K1045N	c.3135	0.009902442	6.658	1
2520	PASK	ENST00000358649	p.E1052D	c.3156	0.095872317	3.574	1
2520	PASK	ENST00000358649	p.F1076L	c.3228	0.183617938	0	1
2521	TAF1L	ENST00000242310	p.R1584L	c.4751	0.060664654	0	1
2521	TAF1L	ENST00000242310	p.I1623V	c.4867	0.060664654	4.043	1
2522	PDE4C	ENST00000594617	p.Y381C	c.1142	0.158891879	5.418	1
2522	PDE4C	ENST00000594617	p.D429N	c.1285	0.115419322	8.599	1
2522	PDE4C	ENST00000594617	p.H432N	c.1294	1.105133013	0	1
2522	PDE4C	ENST00000594617	p.H432Y	c.1294	1.105133013	0	1
2522	PDE4C	ENST00000594617	p.L457P	c.1370	0.160180897	3.659	1
2523	LRP6	ENST00000261349	p.R449M	c.1346_1345	0.065587338	4.103	1
2523	LRP6	ENST00000261349	p.W465C	c.1395	0.11099135	3.711	1
2523	LRP6	ENST00000261349	p.A509V	c.1526	0.083831099	4.302	1
2523	LRP6	ENST00000261349	p.H534N	c.1600	0.185250942	0	1
2524	THRB	ENST00000280696	p.D382N	c.1144	0.0575153	5.227	1
2524	THRB	ENST00000280696	p.R398H	c.1193	0.312327773	2.698	1
2524	THRB	ENST00000280696	p.R444L	c.1331	1.180806845	0	2
2525	MAPK8	ENST00000374189	p.E239Q	c.715	0.093040328	0	1
2525	MAPK8	ENST00000374189	p.Y266N	c.796	0.093040328	3.426	1
2526	SERPING1	ENST00000403558	p.V489E	c.1466	0.094836652	3.554	1
2526	SERPING1	ENST00000403558	p.G251V	c.752	0.095262491	3.547	1
2526	SERPING1	ENST00000403558	p.S254L	c.761	0.033154924	5.142	1
2526	SERPING1	ENST00000403558	p.Y328C	c.983	0.199017051	0	1
2527	CLEC4C	ENST00000542353	p.T85N	c.254	0.008344044	8.49	1
2527	CLEC4C	ENST00000542353	p.F96L	c.288	0.051272987	6.039	1
2527	CLEC4C	ENST00000542353	p.M208I	c.624	2.01798962	0	3
2528	CFB	ENST00000556679	p.F611L	c.1833	0.020446532	6.612	1

2528	CFB	ENST00000556679	p.R640M	c.1918_1919	1.049532172	0	1
2528	CFB	ENST00000556679	p.R640Q	c.1919	1.049532172	0	1
2528	CFB	ENST00000556679	p.E1122K	c.3364	0.097333872	4.669	1
2529	APP	ENST00000346798	p.R499C	c.1495	0.057503663	5.558	1
2529	APP	ENST00000346798	p.E564K	c.1690	1.021226348	0	1
2529	APP	ENST00000346798	p.E564Q	c.1690	1.021226348	0	1
2530	PCK1	ENST00000319441	p.A495T	c.1483	0.093560935	0	1
2530	PCK1	ENST00000319441	p.P605H	c.1814	0.078979983	3.685	1
2530	PCK1	ENST00000319441	p.E607K	c.1819	0.017039461	5.983	1
2531	PGD	ENST00000270776	p.S441G	c.1321	0.011630041	0	1
2531	PGD	ENST00000270776	p.K253N	c.759	0.011630041	6.426	1
2532	KDR	ENST00000263923	p.N156D	c.466	0.008869079	6.817	1
2532	KDR	ENST00000263923	p.K203T	c.608	0.008869079	0	1
2533	SH3GL2	ENST00000380607	p.F110V	c.328	1.016311124	0	1
2533	SH3GL2	ENST00000380607	p.F110S	c.329	1.016311124	0	1
2533	SH3GL2	ENST00000380607	p.S213N	c.638	0.037973158	5.938	1
2534	CAD	ENST00000264705	p.E1708D	c.5124	0.057471878	0	1
2534	CAD	ENST00000264705	p.W1758C	c.5274	0.057471878	4.121	1
2535	PDE2A	ENST00000334456	p.F603L	c.1807	0.10892469	0	1
2535	PDE2A	ENST00000334456	p.A881T	c.2641	0.043010352	4.635	1
2535	PDE2A	ENST00000334456	p.R887H	c.2660	0.07144244	3.864	1
2536	PLG	ENST00000308192	p.P350L	c.1049	0.290918414	0	1
2536	PLG	ENST00000308192	p.R284H	c.851	0.051426721	4.603	1
2536	PLG	ENST00000308192	p.V287L	c.859	0.059229746	4.76	1
2536	PLG	ENST00000308192	p.S292C	c.875	0.229478479	2.232	1
2537	NTRK3	ENST00000360948	p.A681T	c.2041	0.008413956	7.893	1
2537	NTRK3	ENST00000360948	p.R683S	c.2049	0.097106806	6.965	1
2537	NTRK3	ENST00000360948	p.R735C	c.2203	1.032306601	0	1
2537	NTRK3	ENST00000360948	p.R735H	c.2204	1.032306601	0	1
2537	NTRK3	ENST00000360948	p.Q773K	c.2317	0.040190546	5.637	1
2538	PFN2	ENST00000498307	p.G55R	c.163	0.071644512	0	1
2538	PFN2	ENST00000498307	p.A79T	c.235	0.071644512	3.803	1
2539	FOXP3	ENST00000557224	p.R442W	c.1324	0.020474897	0	1
2539	FOXP3	ENST00000557224	p.R312H	c.935	0.020474897	5.61	1
2540	ME2	ENST00000321341	p.R67Q	c.200	0.024484287	5.352	1
2540	ME2	ENST00000321341	p.R91T	c.272	0.024484287	0	1
2541	OCRL	ENST00000371113	p.P99H	c.296	0.153042049	0	1
2541	OCRL	ENST00000371113	p.G17D	c.50	0.153042049	2.708	1
2542	C8B	ENST00000371237	p.G352V	c.1055	0.163020805	2.817	1
2542	C8B	ENST00000371237	p.V427G	c.1280	0.017069149	9.419	1
2542	C8B	ENST00000371237	p.R428Q	c.1283	0.224845029	0	1
2542	C8B	ENST00000371237	p.L266F	c.796	0.08707745	3.713	1
2542	C8B	ENST00000371237	p.R274Q	c.821	0.010536607	7.581	1
2544	RLBP1	ENST00000268125	p.E192V	c.575	0.158548925	2.657	1
2544	RLBP1	ENST00000268125	p.G31R	c.91	0.158548925	0	1
2545	C3	ENST00000245907	p.I355N	c.1064	0.079580926	0	1
2545	C3	ENST00000245907	p.V376L	c.1126	0.069588851	3.845	1
2545	C3	ENST00000245907	p.P388A	c.1162	0.009992075	6.645	1
2546	CUL4A	ENST00000375440	p.V413M	c.1237	0.013668512	7.193	1

2546 CUL4A	ENST00000375440	p.D456H	c.1366	1.006834256	0	1
2546 CUL4A	ENST00000375440	p.D456N	c.1366	1.006834256	0	1
2547 GGH	ENST00000260118	p.Y55C	c.164	0.04497808	0	1
2547 GGH	ENST00000260118	p.G97R	c.289	0.03711124	4.752	1
2547 GGH	ENST00000260118	p.S310L	c.929	0.00786684	6.99	1
2548 PRKCH	ENST00000332981	p.F435S	c.1304	0.030691862	0	1
2548 PRKCH	ENST00000332981	p.E639K	c.1915	0.030691862	5.026	1
2549 CFH	ENST00000367429	p.P869S	c.2605	0.03565877	0	1
2549 CFH	ENST00000367429	p.G894E	c.2681	0.016153605	5.952	1
2549 CFH	ENST00000367429	p.T895I	c.2684	0.019505165	5.68	1
2550 POLD2	ENST00000452185	p.S345T	c.1033	0.142003658	2.816	1
2550 POLD2	ENST00000452185	p.P296T	c.886	0.148527782	0	1
2550 POLD2	ENST00000452185	p.Y332C	c.995	0.010633116	7.26	1
2551 VWF	ENST00000261405	p.D1513N	c.4537	0.04189347	5.077	1
2551 VWF	ENST00000261405	p.V1607I	c.4819	0.089160836	3.701	1
2551 VWF	ENST00000261405	p.L1657P	c.4970	0.106519052	0	1
2552 LRRC4	ENST00000249363	p.S164C	c.491	0.120782637	0	1
2552 LRRC4	ENST00000249363	p.A166T	c.496	0.077564215	9.705	1
2552 LRRC4	ENST00000249363	p.S188C	c.563	0.110644723	3.287	1
2552 LRRC4	ENST00000249363	p.E193D	c.579	0.088816631	5.867	1
2553 SULT1E1	ENST00000226444	p.A135T	c.403	0.028478165	0	1
2553 SULT1E1	ENST00000226444	p.F275C	c.824	0.028478165	5.134	1
2554 KLHL11	ENST00000319121	p.C205G	c.613	0.006838995	0	1
2554 KLHL11	ENST00000319121	p.D226H	c.676	0.006838995	7.192	1
2555 APBA1	ENST00000265381	p.S762N	c.2285	0.061298688	4.028	1
2555 APBA1	ENST00000265381	p.V805I	c.2413	0.061298688	0	1
2556 GSK3B	ENST00000316626	p.R96Q	c.287	0.236051056	3.21	1
2556 GSK3B	ENST00000316626	p.H179N	c.535	0.032189475	9.121	1
2556 GSK3B	ENST00000316626	p.R180Q	c.540_539	1.204726853	0	2
2556 GSK3B	ENST00000316626	p.I238T	c.713	0.218911442	3.398	1
2557 NTRK3	ENST00000360948	p.G652V	c.1955	0.00755161	7.049	1
2557 NTRK3	ENST00000360948	p.E810K	c.2428	0.00553961	7.496	1
2557 NTRK3	ENST00000360948	p.P832S	c.2494	0.01309122	0	1
2558 CRYGC	ENST00000282141	p.R122H	c.365	0.099511012	3.329	1
2558 CRYGC	ENST00000282141	p.E150K	c.448	0.099511012	0	1
2559 PTPN4	ENST00000263708	p.K682E	c.2044	0.049002528	0	1
2559 PTPN4	ENST00000263708	p.D736N	c.2206	0.049002528	4.351	1
2560 PADI4	ENST00000375448	p.R441W	c.1321	0.008850655	0	1
2560 PADI4	ENST00000375448	p.E474K	c.1420	0.008850655	6.82	1
2561 SPTB	ENST00000556626	p.E1708Q	c.5122	0.008869079	0	1
2561 SPTB	ENST00000556626	p.M1778I	c.5334	0.008869079	6.817	1
2562 JAK3	ENST00000458235	p.S1012R	c.3036	0.02970281	0	1
2562 JAK3	ENST00000458235	p.C1077F	c.3230	0.01945116	5.684	1
2562 JAK3	ENST00000458235	p.R1085Q	c.3254	0.01025165	6.608	1
2563 FGA	ENST00000302053	p.E702K	c.2104	1.176165094	0	2
2563 FGA	ENST00000302053	p.R830M	c.2489	0.352330189	2.505	1
2564 FN1	ENST00000354785	p.Q1832K	c.5494	0.101250434	0	1
2564 FN1	ENST00000354785	p.V1868M	c.5602	0.101250434	3.304	1
2565 RYR2	ENST00000360064	p.G228C	c.682	0.101884042	0	1

2565 RYR2	ENST00000360064	p.G284V	c.851	0.101884042	3.295	1
2566 ASMTL	ENST00000381317	p.R79Q	c.236	0.006615198	7.24	1
2566 ASMTL	ENST00000381317	p.S131F	c.392	0.006615198	0	1
2567 ATXN3L	ENST00000380622	p.F12L	c.34	0.022074516	0	1
2567 ATXN3L	ENST00000380622	p.H119D	c.355	0.009938165	6.847	1
2567 ATXN3L	ENST00000380622	p.W120L	c.359	0.008844523	6.821	1
2567 ATXN3L	ENST00000380622	p.S135F	c.404	0.004543438	7.782	1
2568 INPPL1	ENST00000541756	p.R244C	c.730	2.054221168	0	3
2568 INPPL1	ENST00000541756	p.L271M	c.811	0.162663504	4.205	1
2569 CDC7	ENST00000428239	p.P372L	c.1115	0.058720172	0	1
2569 CDC7	ENST00000428239	p.R100I	c.299	0.058720172	4.09	1
2570 SNX33	ENST00000308527	p.R537C	c.1609	0.003467232	8.172	1
2570 SNX33	ENST00000308527	p.R266H	c.797	0.002016403	8.954	1
2570 SNX33	ENST00000308527	p.F270V	c.808	0.079604842	3.651	1
2570 SNX33	ENST00000308527	p.W313L	c.938	0.085088477	0	1
2571 PNLIPRP1	ENST00000358834	p.E443Q	c.1327	0.367875911	2.496	1
2571 PNLIPRP1	ENST00000358834	p.D296N	c.886	1.179632413	0	2
2571 PNLIPRP1	ENST00000358834	p.P323L	c.968	0.018070719	8.724	1
2572 UBA3	ENST00000361055	p.E204A	c.611	0.110414381	4.179	1
2572 UBA3	ENST00000361055	p.P229T	c.685	1.055207191	0	1
2572 UBA3	ENST00000361055	p.P229L	c.686	1.055207191	0	1
2574 IFNA13	ENST00000449498	p.C53S	c.157	0.044550978	0	1
2574 IFNA1	ENST00000276927	p.S160N	c.479	0.006210822	7.331	1
2574 IFNA13	ENST00000449498	p.E166D	c.498	0.038340156	4.705	1
2575 PPP1CA	ENST00000312989	p.E137D	c.411	0.021021363	0	1
2575 PPP1CA	ENST00000312989	p.D205N	c.613	0.021021363	5.572	1
2576 SCN5A	ENST00000333535	p.I1809V	c.5425	0.379566529	2.463	1
2576 SCN5A	ENST00000333535	p.S1812L	c.5435	0.059288342	5.63	1
2576 SCN5A	ENST00000333535	p.M1842I	c.5526	0.042734915	8.93	1
2576 SCN5A	ENST00000333535	p.R1847H	c.5540	1.213878139	0	2
2576 SCN5A	ENST00000333535	p.S1888F	c.5663	0.022393655	6.606	1
2577 FSHR	ENST00000406846	p.P45Q	c.134	0.017064694	7.225	1
2577 FSHR	ENST00000406846	p.N47Y	c.139	0.122007998	3.372	1
2577 FSHR	ENST00000406846	p.E50K	c.148	0.02722857	5.475	1
2577 FSHR	ENST00000406846	p.G68E	c.203	0.02374924	9.73	1
2577 FSHR	ENST00000406846	p.D71G	c.212	0.24140075	0	1
2577 FSHR	ENST00000406846	p.K96N	c.288	0.128096509	3.127	1
2578 PGK1	ENST00000373316	p.V217F	c.649	0.011990204	0	1
2578 PGK1	ENST00000373316	p.F242S	c.725	0.011990204	6.382	1
2579 KAL1	ENST00000262648	p.L200M	c.598	0.009538645	6.712	1
2579 KAL1	ENST00000262648	p.T251S	c.751	0.009538645	0	1
2580 OXSM	ENST00000280701	p.A389V	c.1166	0.090644209	4.969	1
2580 OXSM	ENST00000280701	p.G391W	c.1171	0.079679001	3.695	1
2580 OXSM	ENST00000280701	p.G212R	c.634	0.110938414	0	1
2580 OXSM	ENST00000280701	p.D237N	c.709	0.058046117	9.121	1
2581 GMPR	ENST00000259727	p.R39Q	c.116	0.010957025	0	1
2581 GMPR	ENST00000259727	p.R146P	c.437	0.010957025	6.512	1
2582 PLA2G7	ENST00000274793	p.L111I	c.331	0.016989959	6.047	1
2582 PLA2G7	ENST00000274793	p.H151Y	c.451	0.109949671	5.659	1

2582 PLA2G7	ENST00000274793	p.F156L	c.468	0.127671883	3.019	1
2582 PLA2G7	ENST00000274793	p.S185P	c.553	0.160015922	0	1
2582 PLA2G7	ENST00000274793	p.G275S	c.823	0.089453004	9.17	1
2583 IDE	ENST00000265986	p.W355C	c.1065	0.019681718	5.667	1
2583 IDE	ENST00000265986	p.E381K	c.1141	0.019681718	0	1
2584 P2RY13	ENST00000325602	p.S120L	c.359	0.072745408	0	1
2584 P2RY13	ENST00000325602	p.Y236C	c.707	0.072745408	3.781	1
2585 ACHE	ENST00000411582	p.A458T	c.1372	0.010919117	6.517	1
2585 ACHE	ENST00000411582	p.R552W	c.1654	0.010919117	0	1
2586 FOLH1	ENST00000256999	p.Q340R	c.1019	0.072192862	3.792	1
2586 FOLH1	ENST00000256999	p.D173N	c.517	0.072192862	0	1
2587 MET	ENST00000318493	p.A361in_frame_del	c.1081_1083	0.136117973	6.203	1
2587 MET	ENST00000318493	p.L429V	c.1285	0.358104846	3.005	1
2587 MET	ENST00000318493	p.R469Q	c.1406	1.138141629	0	2
2588 ACPP	ENST00000351273	p.C372F	c.1115	0.226251616	3.144	1
2588 ACPP	ENST00000351273	p.P162S	c.484	1.113125808	0	1
2588 ACPP	ENST00000351273	p.P162H	c.485	1.113125808	0	1
2589 PNPT1	ENST00000447944	p.F620C	c.1859	0.020664881	0	1
2589 PNPT1	ENST00000447944	p.T646M	c.1937	0.007796271	7.003	1
2589 PNPT1	ENST00000447944	p.V649I	c.1945	0.01286861	6.28	1
2590 CRAT	ENST00000318080	p.P387S	c.1159	0.116952937	3.096	1
2590 CRAT	ENST00000318080	p.V569M	c.1705	0.116952937	0	1
2591 PTGR1	ENST00000309195	p.K11Q	c.31	0.059912465	0	1
2591 PTGR1	ENST00000309195	p.D320Y	c.958	0.059912465	4.061	1
2592 SERPINI1	ENST00000446050	p.L81Q	c.242	0.111952322	0	1
2592 SERPINI1	ENST00000446050	p.P22S	c.64	0.104748392	3.255	1
2592 SERPINI1	ENST00000446050	p.T323K	c.968	0.01544473	7.117	1
2593 ITGA5	ENST00000293379	p.M351I	c.1053	0.004385631	7.833	1
2593 ITGA5	ENST00000293379	p.P359S	c.1075	0.006015915	7.377	1
2593 ITGA5	ENST00000293379	p.F389C	c.1166	0.010401546	0	1
2594 TBX1	ENST00000332710	p.L158M	c.472	0.101027676	0	1
2594 TBX1	ENST00000332710	p.P197L	c.590	0.015255511	6.15	1
2594 TBX1	ENST00000332710	p.R240H	c.719	0.00361447	8.112	1
2594 TBX1	ENST00000332710	p.F241S	c.722	0.08450464	3.585	1
2596 CGB7	ENST00000377280	p.V49A	c.146	0.0108738	0	1
2596 CGB5	ENST00000301408	p.A103T	c.307	0.0108738	6.523	1
2597 CAMK2B	ENST00000395749	p.Q118H	c.354	0.116394035	3.117	1
2597 CAMK2B	ENST00000395749	p.QILEA119in_frame_delH	c.368_357	0.027449221	6.671	1
2597 CAMK2B	ENST00000395749	p.R275H	c.824	0.125076502	0	1
2598 ITGAV	ENST00000261023	p.V347L	c.1039	0.073048578	3.775	1
2598 ITGAV	ENST00000261023	p.L413M	c.1237	0.073048578	0	1
2599 ALOX12	ENST00000251535	p.R66C	c.196	0.046843738	4.416	1
2599 ALOX12	ENST00000251535	p.E103D	c.309	0.046843738	0	1
2600 MTOR	ENST00000361445	p.R1709C	c.5125	1.021777769	0	1
2600 MTOR	ENST00000361445	p.R1709H	c.5126	1.021777769	0	1
2600 MTOR	ENST00000361445	p.R2266P	c.6797	0.043555539	5.521	1
2601 CYP2C8	ENST00000371270	p.F168I	c.502	0.141340319	0	1
2601 CYP2C8	ENST00000371270	p.L195V	c.583	0.087827931	3.591	1
2601 CYP2C8	ENST00000371270	p.K199I	c.596	0.063197605	4.099	1

2602	TAS2R39	ENST00000446620	p.W126L	c.377	0.245325302	4.967	1
2602	TAS2R39	ENST00000446620	p.F212L	c.636	0.146840601	9.205	1
2602	TAS2R39	ENST00000446620	p.G216R	c.646	0.110681465	8.337	1
2602	TAS2R39	ENST00000446620	p.Y303S	c.908	1.03675998	0	2
2603	FABP4	ENST00000256104	p.V119I	c.355	0.084964265	0	1
2603	FABP4	ENST00000256104	p.DYMK19in_frame_del	c.68_57	0.084964265	3.557	1
2604	ITGB6	ENST00000283249	p.A143T	c.427	0.142545661	3.061	1
2604	ITGB6	ENST00000283249	p.S144F	c.431	0.033802487	5.05	1
2604	ITGB6	ENST00000283249	p.C197Y	c.590	0.032630888	6.208	1
2604	ITGB6	ENST00000283249	p.I232M	c.696	0.163537574	0	1
2605	SH3GL2	ENST00000380607	p.D107N	c.319	0.006601456	7.243	1
2605	SH3GL2	ENST00000380607	p.D169N	c.505	0.123554393	0	1
2605	SH3GL2	ENST00000380607	p.G26E	c.77	0.116952937	3.096	1
2606	TPK1	ENST00000360057	p.G130W	c.388	0.055062608	7.767	1
2606	TPK1	ENST00000360057	p.D133N	c.397	0.217747357	4.838	1
2606	TPK1	ENST00000360057	p.E159K	c.475	0.350624726	3.212	1
2606	TPK1	ENST00000360057	p.W182L	c.545	0.772805474	1.925	1
2606	TPK1	ENST00000360057	p.A240T	c.718	1.410812286	0	2
2607	STAMBP	ENST00000394070	p.R424Q	c.1271	1.004677651	0	2
2607	STAMBP	ENST00000394070	p.L300I	c.898	0.027859546	7.74	1
2608	STEAP3	ENST00000409811	p.I149S	c.446	0.255784367	2.967	1
2608	STEAP3	ENST00000409811	p.R207C	c.619	1.127892184	0	1
2608	STEAP3	ENST00000409811	p.R207H	c.620	1.127892184	0	1
2609	CETP	ENST00000200676	p.A51S	c.151	0.055552668	4.17	1
2609	CETP	ENST00000200676	p.I200M	c.600	0.055552668	0	1
2610	THEM5	ENST00000368817	p.L69M	c.205	0.022671128	5.463	1
2610	THEM5	ENST00000368817	p.F132L	c.394	0.022671128	0	1
2611	CYP11A1	ENST00000268053	p.A343V	c.1028	0.078753966	3.818	1
2611	CYP11A1	ENST00000268053	p.E486K	c.1456	0.181624408	0	1
2611	CYP11A1	ENST00000268053	p.W512C	c.1536	0.118571438	3.175	1
2612	NGF	ENST00000369512	p.E132K	c.394	1.005859527	0	2
2612	NGF	ENST00000369512	p.R190G	c.568	0.011719055	7.415	1
2613	PFKFB1	ENST00000375006	p.C334F	c.1001	0.014788491	7.061	1
2613	PFKFB1	ENST00000375006	p.G272A	c.815	0.022676261	0	1
2613	PFKFB1	ENST00000375006	p.E328K	c.982	0.015187203	6.041	1
2614	NTRK1	ENST00000524377	p.R654H	c.1961	0.156293085	2.873	1
2614	NTRK1	ENST00000524377	p.D679N	c.2035	0.15755216	0	1
2614	NTRK1	ENST00000524377	p.R692C	c.2074	0.143374443	8.756	1
2614	NTRK1	ENST00000524377	p.P727H	c.2180	0.154399153	5.738	1
2615	CHRNA4	ENST00000370263	p.E92K	c.274	0.042541111	0	1
2615	CHRNA4	ENST00000370263	p.W151L	c.452	0.027374947	5.191	1
2615	CHRNA4	ENST00000370263	p.M194V	c.580	0.015166164	6.043	1
2616	RBBP7	ENST00000380084	p.E167K	c.499	1.008543246	0	2
2616	RBBP7	ENST00000380084	p.N211K	c.633	0.017086492	6.871	1
2617	ACADSB	ENST00000358776	p.K189N	c.567	0.012023494	6.378	1
2617	ACADSB	ENST00000358776	p.A221V	c.662	0.012023494	0	1
2618	ETV1	ENST00000405218	p.P234S	c.700	0.015679246	0	1
2618	ETV1	ENST00000405218	p.S287C	c.859	0.015679246	5.995	1
2619	KRAS	ENST00000256078	p.P110S	c.328	0.028424423	5.436	1

2619 KRAS	ENST00000256078	p.R135T	c.404	0.23585079	2.117	1
2619 KRAS	ENST00000256078	p.R164Q	c.491	0.253625192	0	1
2620 UBE2N	ENST00000550657	p.I75M	c.225	0.007861389	6.991	1
2622 NDNL2	ENST00000332303	p.K88N	c.264	0.060538637	0	1
2622 NDNL2	ENST00000332303	p.Y119C	c.356	0.060538637	4.046	1
2623 TEAD2	ENST00000598810	p.V449A	c.1346	0.187135744	0	1
2623 TEAD2	ENST00000598810	p.Y293C	c.878	0.180350206	2.483	1
2623 TEAD2	ENST00000598810	p.L303P	c.908	0.009741821	6.919	1
2624 SAMHD1	ENST00000262878	p.R451P	c.1352	0.160971848	0	1
2624 SAMHD1	ENST00000262878	p.D137H	c.409	0.135150558	3.371	1
2624 SAMHD1	ENST00000262878	p.R145Q	c.434	0.067879078	4.014	1
2624 SAMHD1	ENST00000262878	p.N248D	c.742	0.02745306	8.691	1
2625 SUMF2	ENST00000342190	p.G110E	c.329	0.124222637	3.009	1
2625 SUMF2	ENST00000342190	p.K142N	c.426	0.124222637	0	1
2626 ITGAV	ENST00000261023	p.R108T	c.323	0.125695073	2.992	1
2626 ITGAV	ENST00000261023	p.E168D	c.504	0.125695073	0	1
2627 PPFIA2	ENST00000549396	p.E960G	c.2879	1.00367765	0	1
2627 PPFIA2	ENST00000549396	p.EMVS960in_frame_del	c.2889_2878	1.00367765	0	1
2627 PPFIA2	ENST00000549396	p.A1048T	c.3142	0.007355301	8.087	1
2628 EXOSC7	ENST00000265564	p.E20K	c.58	0.028975955	5.109	1
2628 EXOSC7	ENST00000265564	p.R209W	c.625	0.030600216	0	1
2628 EXOSC7	ENST00000265564	p.R27C	c.79	0.001624262	9.266	1
2629 AKR1D1	ENST00000242375	p.R78W	c.232	0.136096467	4.525	1
2629 AKR1D1	ENST00000242375	p.R99C	c.295	2.17677537	0	3
2629 AKR1D1	ENST00000242375	p.A156T	c.466	0.135817667	4.528	1
2629 AKR1D1	ENST00000242375	p.L162F	c.486	0.277796919	3.474	1
2630 XDH	ENST00000379416	p.D430Y	c.1288	0.031141883	5.005	1
2630 XDH	ENST00000379416	p.G457N	c.1370_1369	0.031141883	0	1
2631 PPCS	ENST00000372561	p.G170D	c.509	0.085109487	3.688	1
2631 PPCS	ENST00000372561	p.A225S	c.673	0.174513369	0	1
2631 PPCS	ENST00000372561	p.Q253E	c.757	0.111013923	3.367	1
2632 F11	ENST00000403665	p.S394Y	c.1181	0.181270932	3.475	1
2632 F11	ENST00000403665	p.R443C	c.1327	1.105547522	0	1
2632 F11	ENST00000403665	p.R443H	c.1328	1.105547522	0	1
2632 F11	ENST00000403665	p.V490A	c.1469	0.032632582	6.001	1
2633 GNMT	ENST00000372808	p.A144T	c.430	0.071655327	5.747	1
2633 GNMT	ENST00000372808	p.R242W	c.724	1.01862004	0	1
2633 GNMT	ENST00000372808	p.R242Q	c.725	1.01862004	0	1
2634 PIGR	ENST00000356495	p.R412H	c.1235	0.045382906	0	1
2634 PIGR	ENST00000356495	p.D601N	c.1801	0.034125642	4.873	1
2634 PIGR	ENST00000356495	p.Y172C	c.515	0.011257264	6.473	1
2635 XCL1	ENST00000367818	p.I61T	c.182	0.009169126	0	1
2635 XCL1	ENST00000367818	p.E25D	c.75	0.009169126	6.769	1
2636 SMAD3	ENST00000327367	p.M255I	c.765	0.106875272	0	1
2636 SMAD3	ENST00000327367	p.R295W	c.883	0.106875272	3.226	1
2637 GCK	ENST00000345378	p.A371T	c.1111	0.016968467	0	1
2637 GCK	ENST00000345378	p.E23Q	c.67	0.016968467	5.881	1
2638 SUV420H1	ENST00000304363	p.D249N	c.745	1.013926726	0	2
2638 SUV420H1	ENST00000304363	p.S283L	c.848	0.027853453	6.166	1

2639	ACACB	ENST00000338432	p.P2022H	c.6065	0.03941753	6.188	1
2639	ACACB	ENST00000338432	p.R2086L	c.6257	0.059128603	4.08	1
2639	ACACB	ENST00000338432	p.L2149M	c.6445	0.072844569	0	1
2640	KSR2	ENST00000339824	p.H719N	c.2155	0.015549371	0	1
2640	KSR2	ENST00000339824	p.E769K	c.2305	0.015549371	6.007	1
2642	PDE1A	ENST00000456212	p.S359Y	c.1076	0.078345814	0	1
2642	PDE1A	ENST00000456212	p.S329Y	c.986	0.078345814	3.674	1
2643	PTPRE	ENST00000419012	p.T552M	c.1655	0.009017855	0	1
2643	PTPRE	ENST00000419012	p.R585Q	c.1754	0.009017855	6.793	1
2644	STAM	ENST00000377524	p.K78N	c.234	0.006488047	0	1
2644	STAM	ENST00000377524	p.E118G	c.353	0.006488047	7.268	1
2645	XPO1	ENST00000404992	p.Q916E	c.2746	0.014568539	6.101	1
2645	XPO1	ENST00000404992	p.N970S	c.2909	0.014568539	0	1
2646	CTSL	ENST00000340342	p.Q188K	c.562	0.013640119	6.196	1
2646	CTSL	ENST00000340342	p.F258L	c.774	0.026042288	5.263	1
2646	CTSL	ENST00000340342	p.G307S	c.919	0.039682406	0	1
2647	BTG2	ENST00000475157	p.R66G	c.196	0.156583055	0	1
2647	BTG2	ENST00000475157	p.V104M	c.310	0.156583055	2.675	1
2649	GABBR1	ENST00000377034	p.E460D	c.1380	0.123792859	0	1
2649	GABBR1	ENST00000377034	p.A191G	c.572	0.123792859	3.014	1
2650	FTMT	ENST00000321339	p.V93L	c.277	0.022143084	5.497	1
2650	FTMT	ENST00000321339	p.E149K	c.445	0.022143084	0	1
2651	RGS17	ENST00000367225	p.S150T	c.449	0.074480161	3.747	1
2651	RGS17	ENST00000367225	p.Q177H	c.531	0.074480161	0	1
2652	MAP2K4	ENST00000415385	p.D107V	c.320	0.008099227	6.948	1
2652	MAP2K4	ENST00000415385	p.P134Q	c.401	0.008099227	0	1
2653	KCNIP1	ENST00000434108	p.P83S	c.247	0.052981474	0	1
2653	KCNIP1	ENST00000434108	p.M183I	c.549	0.04941182	4.339	1
2653	KCNIP1	ENST00000434108	p.C224R	c.670	0.003569654	8.13	1
2655	KSR2	ENST00000339824	p.S749C	c.2246	0.013093549	6.255	1
2655	KSR2	ENST00000339824	p.E866K	c.2596	0.013093549	0	1
2656	PKP1	ENST00000263946	p.N356D	c.1066	0.024080347	5.376	1
2656	PKP1	ENST00000263946	p.R317M	c.950	0.024080347	0	1
2657	FKBP5	ENST00000536438	p.P199L	c.596	0.088082547	0	1
2657	FKBP5	ENST00000536438	p.G224D	c.671	0.088082547	3.505	1
2658	ANPEP	ENST00000300060	p.R363Q	c.1088	0.130217929	2.941	1
2658	ANPEP	ENST00000300060	p.D858E	c.2574	0.130217929	0	1
2659	DDX58	ENST00000379883	p.R767H	c.2300	0.09182304	3.445	1
2659	DDX58	ENST00000379883	p.V823I	c.2467	0.09182304	0	1
2660	SPTB	ENST00000556626	p.F2014L	c.6042	0.026700304	5.227	1
2660	SPTB	ENST00000556626	p.K2070E	c.6208	0.026700304	0	1
2661	VPS35	ENST00000299138	p.R499H	c.1496	0.006877024	0	1
2661	VPS35	ENST00000299138	p.R542Q	c.1625	0.006877024	7.184	1
2662	ERBB4	ENST00000342788	p.R103C	c.307	1.053794963	0	1
2662	ERBB4	ENST00000342788	p.R103L	c.308	1.053794963	0	1
2662	ERBB4	ENST00000342788	p.I166N	c.497	0.033077637	5.918	1
2662	ERBB4	ENST00000342788	p.A235V	c.704	0.055514175	5.171	1
2662	ERBB4	ENST00000342788	p.C238F	c.713	0.018998114	6.718	1
2663	PDE2A	ENST00000334456	p.P653T	c.1957	0.086323473	0	1

2663 PDE2A	ENST00000334456	p.G702C	c.2104	0.070982162	3.84	1
2663 PDE2A	ENST00000334456	p.T703R	c.2108	0.017644742	5.922	1
2664 AKR1B10	ENST00000359579	p.G56E	c.167	0.108067154	0	1
2664 AKR1B10	ENST00000359579	p.L100M	c.298	0.108067154	3.21	1
2665 SMS	ENST00000404933	p.I181F	c.541	0.093518334	0	1
2665 SMS	ENST00000404933	p.D276Y	c.826	0.090298785	3.617	1
2665 SMS	ENST00000404933	p.Y312N	c.934	0.020810777	6.379	1
2666 MAPK12	ENST00000215659	p.L283V	c.847	0.09305809	0	1
2666 MAPK12	ENST00000215659	p.P309S	c.925	0.081452042	3.636	1
2666 MAPK12	ENST00000215659	p.F311L	c.933	0.029790082	6.308	1
2667 AURKA	ENST00000395909	p.H176Y	c.526	0.060950065	4.173	1
2667 AURKA	ENST00000395909	p.V206A	c.617	0.011864306	6.534	1
2667 AURKA	ENST00000395909	p.W277L	c.830	0.165670536	0	1
2667 AURKA	ENST00000395909	p.M305I	c.915	0.106027957	3.33	1
2668 GGT1	ENST00000406383	p.H81D	c.241	0.153679858	2.702	1
2668 GGT1	ENST00000406383	p.A177V	c.530	0.153679858	0	1
2669 TRA2B	ENST00000453386	p.G124L	c.371_370	0.304391505	1.716	1
2669 TRA2B	ENST00000453386	p.F161S	c.482	0.304391505	0	1
2670 PNLIP	ENST00000369221	p.F417L	c.1249	0.258706609	0	1
2670 PNLIP	ENST00000369221	p.E457K	c.1369	0.123024898	3.227	1
2670 PNLIP	ENST00000369221	p.L459M	c.1375	0.104307465	3.487	1
2670 PNLIP	ENST00000369221	p.L460F	c.1378	0.075008862	3.995	1
2671 C5	ENST00000223642	p.S940Y	c.2819	0.058598194	4.093	1
2671 C5	ENST00000223642	p.T1363P	c.4087	0.058598194	0	1
2672 CLEC4C	ENST00000542353	p.G143R	c.427	0.010061314	8.22	1
2672 CLEC4C	ENST00000542353	p.P147S	c.439	0.09239525	5.021	1
2672 CLEC4C	ENST00000542353	p.G148W	c.442	0.078181035	5.262	1
2672 CLEC4C	ENST00000542353	p.R179C	c.535	2.060212533	0	1
2672 CLEC4C	ENST00000542353	p.R179L	c.536	2.060212533	0	2
2673 LIMK1	ENST00000418310	p.H423Y	c.1267	0.009813612	6.671	1
2673 LIMK1	ENST00000418310	p.A475T	c.1423	0.009813612	0	1
2674 TEK	ENST00000380036	p.A933T	c.2797	0.124488111	0	1
2674 TEK	ENST00000380036	p.T1106M	c.3317	0.049981211	4.431	1
2674 TEK	ENST00000380036	p.L1107F	c.3319	0.081750888	3.678	1
2675 IL4	ENST00000231449	p.E50K	c.148	0.295522002	0	1
2675 IL4	ENST00000231449	p.R88C	c.262	0.072577281	4.091	1
2675 IL4	ENST00000231449	p.T132M	c.395	0.250740314	2.078	1
2676 PIAS3	ENST00000393045	p.A352T	c.1054	1.003181717	0	1
2676 PIAS3	ENST00000393045	p.A352G	c.1055	1.003181717	0	1
2676 PIAS3	ENST00000393045	p.I379V	c.1135	0.002605905	9.584	1
2676 PIAS3	ENST00000393045	p.P166S	c.496	0.008023234	9.056	1
2677 TEK	ENST00000380036	p.E990K	c.2968	0.099580012	0	1
2677 TEK	ENST00000380036	p.V1014L	c.3040	0.099580012	3.328	1
2678 CYP19A1	ENST00000559878	p.G391E	c.1172	0.043105029	4.536	1
2678 CYP19A1	ENST00000559878	p.E93K	c.277	0.043105029	0	1
2679 FOXP2	ENST00000408937	p.R548K	c.1643	0.036096431	4.792	1
2679 FOXP2	ENST00000408937	p.E602K	c.1804	0.036096431	0	1
2680 ADAM22	ENST00000315984	p.R667S	c.2001	0.021762679	6.522	1
2680 ADAM22	ENST00000315984	p.M313I	c.939	1.01088134	0	2

2681 C5	ENST00000223642	p.S1117Y	c.3350	0.113034365	0	1
2681 C5	ENST00000223642	p.F1174V	c.3520	0.103534891	3.287	1
2681 C5	ENST00000223642	p.L1175M	c.3523	0.011668104	6.562	1
2683 KIF3B	ENST00000375712	p.D154Y	c.460	0.00573894	7.445	1
2683 KIF3B	ENST00000375712	p.R201C	c.601	0.023674915	0	1
2683 KIF3B	ENST00000375712	p.D294Y	c.880	0.017935975	5.801	1
2684 CHRNA4	ENST00000370263	p.N193S	c.578	0.060655743	0	1
2684 CHRNA4	ENST00000370263	p.T217S	c.650	0.047333322	4.401	1
2684 CHRNA4	ENST00000370263	p.T234A	c.700	0.01332242	6.23	1
2685 UPF1	ENST00000599848	p.E766V	c.2297	0.033984012	4.879	1
2685 UPF1	ENST00000599848	p.R843H	c.2528	0.033984012	0	1
2686 HIBADH	ENST00000265395	p.A138T	c.412	0.018249491	5.776	1
2686 HIBADH	ENST00000265395	p.S295N	c.884	0.018249491	0	1
2687 TCN1	ENST00000257264	p.V336I	c.1006	0.179374104	3.262	1
2687 TCN1	ENST00000257264	p.R421C	c.1261	0.202458966	0	1
2687 TCN1	ENST00000257264	p.G423R	c.1267	0.134600673	7.192	1
2687 TCN1	ENST00000257264	p.S332L	c.995	0.163058406	3.452	1
2688 MYBPC1	ENST00000452455	p.L446P	c.1337	0.135184345	0	1
2688 MYBPC1	ENST00000452455	p.P521T	c.1561	0.135184345	2.887	1
2689 CLK1	ENST00000434813	p.P361L	c.1082	0.061305432	4.21	1
2689 CLK1	ENST00000434813	p.F264V	c.790	0.034568676	5.067	1
2689 CLK1	ENST00000434813	p.R265C	c.793	0.113533166	3.255	1
2689 CLK1	ENST00000434813	p.Q313E	c.937	0.188613875	0	1
2690 PDE10A	ENST00000539869	p.Y369N	c.1105	0.037188491	0	1
2690 PDE10A	ENST00000539869	p.I332M	c.996	0.037188491	4.749	1
2691 LYPLA1	ENST00000316963	p.N111K	c.333	0.011849746	6.399	1
2691 LYPLA1	ENST00000316963	p.G116R	c.346	0.020545981	5.605	1
2691 LYPLA1	ENST00000316963	p.G138S	c.412	0.032395727	0	1
2692 RRP9	ENST00000232888	p.C151W	c.453	0.067125279	0	1
2692 RRP9	ENST00000232888	p.V202I	c.604	0.067125279	3.897	1
2693 GLB1	ENST00000445488	p.C569Y	c.1706	0.014608987	6.097	1
2693 GLB1	ENST00000445488	p.W630C	c.1890	0.014608987	0	1
2694 PTPRC	ENST00000442510	p.E624K	c.1870	0.073523182	0	1
2694 PTPRC	ENST00000442510	p.F664L	c.1990	0.056995823	4.133	1
2694 PTPRC	ENST00000442510	p.S665I	c.1994	0.016527359	5.919	1
2695 MGAM	ENST00000475668	p.E419K	c.1255	1.015145153	0	1
2695 MGAM	ENST00000475668	p.E419D	c.1257	1.015145153	0	1
2695 MGAM	ENST00000475668	p.G494R	c.1480	0.030290307	6.045	1
2696 VSIG4	ENST00000374737	p.C41Y	c.122	0.01876852	5.936	1
2696 VSIG4	ENST00000374737	p.K129N	c.387	0.025872396	0	1
2696 VSIG4	ENST00000374737	p.R20C	c.58	0.01316315	6.712	1
2697 ALOX15B	ENST00000380183	p.R361C	c.1081	0.051903924	4.847	1
2697 ALOX15B	ENST00000380183	p.A363V	c.1088	0.021807981	5.519	1
2697 ALOX15B	ENST00000380183	p.N247I	c.740	0.056554204	0	1
2698 CSNK2B	ENST00000375866	p.R92H	c.275	0.155609279	2.684	1
2698 CSNK2B	ENST00000375866	p.D26H	c.76	0.155609279	0	1
2699 PREP	ENST00000369110	p.G579R	c.1735	0.031358492	0	1
2699 PREP	ENST00000369110	p.L636I	c.1906	0.031358492	4.995	1
2700 KLHL12	ENST00000435533	p.G517W	c.1549	0.027412923	5.189	1

2700 KLHL12	ENST00000435533	p.C549W	c.1647	0.027412923	0	1
2701 ACO1	ENST00000379923	p.P606L	c.1817	1.081446697	0	1
2701 ACO1	ENST00000379923	p.P606Q	c.1817	1.081446697	0	1
2701 ACO1	ENST00000379923	p.V321A	c.962	0.162893394	3.618	1
2702 FGA	ENST00000302053	p.E147K	c.439	0.0093294	6.744	1
2702 FGA	ENST00000302053	p.L154I	c.460	0.00994371	6.652	1
2702 FGA	ENST00000302053	p.D211E	c.633	0.01927311	0	1
2703 HAO1	ENST00000378789	p.V360M	c.1078	0.008093615	6.949	1
2703 HAO1	ENST00000378789	p.T64P	c.190	0.015777364	5.986	1
2703 HAO1	ENST00000378789	p.L304R	c.911	0.023870979	0	1
2704 MTPAP	ENST00000358107	p.E468K	c.1402	0.121852284	0	1
2704 MTPAP	ENST00000358107	p.R192T	c.575	0.017061809	6.019	1
2704 MTPAP	ENST00000358107	p.F193L	c.579	0.109977942	3.232	1
2705 SERPINB2	ENST00000457692	p.S36A	c.106	0.023131458	5.434	1
2705 SERPINB2	ENST00000457692	p.A7T	c.19	0.023131458	0	1
2707 MTR	ENST00000366577	p.D1043N	c.3127	0.022577037	5.469	1
2707 MTR	ENST00000366577	p.C1081Y	c.3242	0.022577037	0	1
2708 SATB2	ENST00000260926	p.V358M	c.1072	1.147419574	0	1
2708 SATB2	ENST00000260926	p.V358A	c.1073	1.147419574	0	1
2708 SATB2	ENST00000260926	p.N420K	c.1260	0.294839148	2.762	1
2709 KDM1B	ENST00000388870	p.R338L	c.1013	0.038993562	0	1
2709 KDM1B	ENST00000388870	p.W139C	c.417	0.032484741	5.463	1
2709 KDM1B	ENST00000388870	p.E156K	c.466	0.016322434	5.937	1
2710 CD8A	ENST00000352580	p.L71V	c.211	0.011948721	6.387	1
2710 CD8A	ENST00000352580	p.S116L	c.347	0.011948721	0	1
2711 HMGCS2	ENST00000369406	p.S484N	c.1451	0.018262145	6.775	1
2711 HMGCS2	ENST00000369406	p.E100K	c.298	1.009131072	0	1
2711 HMGCS2	ENST00000369406	p.E100V	c.299	1.009131072	0	1
2712 CHP2	ENST00000300113	p.S132A	c.394	0.050032176	0	1
2712 CHP2	ENST00000300113	p.A171V	c.512	0.050032176	4.321	1
2713 TALDO1	ENST00000319006	p.R70Q	c.209	1.049480367	0	2
2713 TALDO1	ENST00000319006	p.R329L	c.986	0.108257856	4.337	1
2714 FOXO3	ENST00000406360	p.R222W	c.664	0.059829466	0	1
2714 FOXO3	ENST00000406360	p.G244A	c.731	0.059829466	4.063	1
2715 BIRC6	ENST00000421745	p.S4596I	c.13787	0.007662336	0	1
2715 BIRC6	ENST00000421745	p.T4672M	c.14015	0.007662336	7.028	1
2716 FCAR	ENST00000345937	p.V12M	c.34	0.017253488	0	1
2717 CUL5	ENST00000531427	p.R711Q	c.2132	0.175190931	3.513	1
2717 CUL5	ENST00000531427	p.M752I	c.2256	1.087595466	0	2
2718 GH1	ENST00000323322	p.D52Y	c.154	0.042896388	0	1
2718 GH1	ENST00000323322	p.Y129C	c.386	0.042896388	4.543	1
2719 PTK2	ENST00000519419	p.E460D	c.1380	0.013276328	6.235	1
2719 PTK2	ENST00000519419	p.R520C	c.1558	0.013276328	0	1
2720 GRK6	ENST00000528793	p.F197L	c.591	0.033896338	0	1
2720 GRK6	ENST00000528793	p.K223N	c.669	0.014659706	6.092	1
2720 GRK6	ENST00000528793	p.A231V	c.692	0.019236631	5.7	1
2721 MSN	ENST00000360270	p.E573K	c.1717	2.058517015	0	3
2721 MSN	ENST00000360270	p.S207N	c.620	0.175551046	4.095	1
2722 GRIA2	ENST00000296526	p.G366E	c.1097	0.025312609	0	1

2722	GRIA2	ENST00000296526	p.M128I	c.384	0.025312609	5.304	1
2723	XPO5	ENST00000265351	p.R368H	c.1103	0.017361361	0	1
2723	XPO5	ENST00000265351	p.S422F	c.1265	0.013640119	6.196	1
2723	XPO5	ENST00000265351	p.D425Y	c.1273	0.003721242	8.07	1
2724	LHCGR	ENST00000294954	p.K62N	c.186	0.200796667	0	1
2724	LHCGR	ENST00000294954	p.D84N	c.250	0.153904663	2.777	1
2724	LHCGR	ENST00000294954	p.R88K	c.263	0.078162301	4.187	1
2725	NUDT9	ENST00000302174	p.A101T	c.301	0.114830087	3.6	1
2725	NUDT9	ENST00000302174	p.W110C	c.330	0.065941295	4.037	1
2725	NUDT9	ENST00000302174	p.R159W	c.475	0.029591488	8.793	1
2725	NUDT9	ENST00000302174	p.L161R	c.482	0.145641185	0	1
2726	DUPD1	ENST00000338487	p.Y63C	c.188	0.012090352	6.37	1
2726	DUPD1	ENST00000338487	p.V148I	c.442	0.008961774	6.802	1
2726	DUPD1	ENST00000338487	p.R181C	c.541	0.021052125	0	1
2727	IFNA2	ENST00000380206	p.R185K	c.554	0.10424138	0	1
2727	IFNA2	ENST00000380206	p.L32M	c.94	0.10424138	3.262	1
2728	SERPINB2	ENST00000457692	p.E365D	c.1095	0.156285	4.151	1
2728	SERPINB2	ENST00000457692	p.G206R	c.616	1.058749339	0	1
2728	SERPINB2	ENST00000457692	p.G206E	c.617	1.058749339	0	1
2728	SERPINB2	ENST00000457692	p.P211S	c.631	0.048627182	8.667	1
2729	ENPEP	ENST00000265162	p.K348T	c.1043	0.155933196	0	1
2729	ENPEP	ENST00000265162	p.Y310D	c.928	0.155933196	2.681	1
2730	NPM1	ENST00000517671	p.D55N	c.163	0.003966274	0	1
2730	NPM1	ENST00000517671	p.S106L	c.317	0.003966274	7.978	1
2731	CXCL12	ENST00000395794	p.P53L	c.158	0.079770548	3.648	1
2731	CXCL12	ENST00000395794	p.C30R	c.88	0.079770548	0	1
2732	CNOT7	ENST00000361272	p.H157Y	c.469	0.220561468	0	1
2732	CNOT7	ENST00000361272	p.K196N	c.588	0.162794114	2.714	1
2732	CNOT7	ENST00000361272	p.G208V	c.623	0.05472577	4.423	1
2732	CNOT7	ENST00000361272	p.L209F	c.627	0.025824074	5.537	1
2733	TNPO1	ENST00000337273	p.L546V	c.1636	0.009469227	9.494	1
2733	TNPO1	ENST00000337273	p.P576S	c.1726	0.183762732	2.543	1
2733	TNPO1	ENST00000337273	p.P611Q	c.1832	0.196836713	0	1
2733	TNPO1	ENST00000337273	p.P644S	c.1930	0.03683434	5.389	1
2734	SAE1	ENST00000270225	p.E50K	c.148	0.015030116	0	1
2734	SAE1	ENST00000270225	p.V306A	c.917	0.015030116	6.056	1
2735	CAPN9	ENST00000271971	p.A101T	c.301	0.087680547	0	1
2735	CAPN9	ENST00000271971	p.A192T	c.574	0.044728183	4.546	1
2735	CAPN9	ENST00000271971	p.M196I	c.588	0.055868455	4.478	1
2736	CTBP2	ENST00000494626	p.A194V	c.581	0.006707542	7.22	1
2736	CTBP2	ENST00000494626	p.H242Y	c.724	0.006707542	0	1
2737	ARG2	ENST00000261783	p.R90C	c.268	0.03125	0	1
2737	ARG2	ENST00000261783	p.F181L	c.543	0.03125	5	1
2738	CHI3L2	ENST00000445067	p.R40Q	c.119	0.006434305	7.28	1
2738	CHI3L2	ENST00000445067	p.G44E	c.131	0.009598336	6.703	1
2738	CHI3L2	ENST00000445067	p.K172E	c.514	0.016032641	0	1
2739	BDH2	ENST00000296424	p.T208M	c.623	0.015635834	0	1
2739	BDH2	ENST00000296424	p.A230D	c.689	0.015635834	5.999	1
2740	CR1	ENST00000367052	p.L1781P	c.5342	0.013202912	7.243	1

2740 CR1	ENST00000367052	p.R1839G	c.5515	1.006601456	0	1
2740 CR1	ENST00000367052	p.R1839L	c.5516	1.006601456	0	1
2741 CDC14B	ENST00000375236	p.R348K	c.1043	0.025085543	5.317	1
2741 CDC14B	ENST00000375236	p.T321M	c.962	0.025085543	0	1
2742 CD40LG	ENST00000370629	p.R181L	c.542	1.156117972	0	1
2742 CD40LG	ENST00000370629	p.R181Q	c.542	1.156117972	0	1
2742 CD40LG	ENST00000370629	p.T211N	c.632	0.113123808	4.216	1
2742 CD40LG	ENST00000370629	p.A215T	c.643	0.210122455	3.289	1
2743 CA1	ENST00000523022	p.L165I	c.493	1.0431327	5.607	1
2743 CA1	ENST00000523022	p.L165P	c.494	1.0431327	5.607	1
2743 CA1	ENST00000523022	p.A167G	c.500	0.208670845	3.29	1
2743 CA1	ENST00000523022	p.S229I	c.686	1.143272792	0	1
2743 CA1	ENST00000523022	p.S229R	c.687	1.143272792	0	1
2744 CALR	ENST00000316448	p.T346M	c.1037	0.008437317	6.889	1
2744 CALR	ENST00000316448	p.K62R	c.185	0.008437317	0	1
2745 PDE1B	ENST00000243052	p.D177V	c.530	0.076553577	3.857	1
2745 PDE1B	ENST00000243052	p.A179T	c.535	0.116813476	3.194	1
2745 PDE1B	ENST00000243052	p.E212K	c.634	0.178284755	0	1
2746 NCAM2	ENST00000400546	p.H366L	c.1097	0.149732858	2.812	1
2746 NCAM2	ENST00000400546	p.D369Y	c.1105	0.077922355	4.279	1
2746 NCAM2	ENST00000400546	p.E314D	c.942	0.020059963	9.991	1
2746 NCAM2	ENST00000400546	p.Q317K	c.949	0.194890726	0	1
2747 WDR5	ENST00000358625	p.D150G	c.449	0.010833863	9.389	1
2747 WDR5	ENST00000358625	p.S171L	c.512	0.173413259	2.647	1
2747 WDR5	ENST00000358625	p.D192N	c.574	0.188823476	0	1
2747 WDR5	ENST00000358625	p.V217M	c.649	0.032099432	5.175	1
2748 PTPRF	ENST00000359947	p.F1365S	c.4094	0.022618763	0	1
2748 PTPRF	ENST00000359947	p.I1397F	c.4189	0.016227485	6.93	1
2748 PTPRF	ENST00000359947	p.A1647V	c.4940	0.014417851	6.116	1
2749 NTNG1	ENST00000542803	p.G461R	c.1381	0.002561137	8.609	1
2749 NTNG1	ENST00000542803	p.P464S	c.1390	0.026424134	5.242	1
2749 NTNG1	ENST00000542803	p.A491S	c.1471	0.028985271	0	1
2750 ERO1L	ENST00000554019	p.V39A	c.116	0.154517798	0	1
2751 API5	ENST00000531273	p.K153N	c.459	0.014111352	6.147	1
2751 API5	ENST00000531273	p.I197M	c.591	0.014111352	0	1
2752 CFHR2	ENST00000367421	p.E215K	c.643	1.006206519	8.332	2
2752 CFHR2	ENST00000367421	p.P265S	c.793	1.006206519	0	1
2752 CFHR2	ENST00000367421	p.P265H	c.794	1.006206519	0	1
2753 XDH	ENST00000379416	p.G445R	c.1333	0.088021514	0	1
2753 XDH	ENST00000379416	p.D534N	c.1600	0.088021514	3.506	1
2754 PHGDH	ENST00000369409	p.G101L	c.301_302	0.196354962	0	1
2754 PHGDH	ENST00000369409	p.A286V	c.857	0.030274727	5.975	1
2754 PHGDH	ENST00000369409	p.A291T	c.871	0.063403527	4.148	1
2754 PHGDH	ENST00000369409	p.R294H	c.881	0.133019949	3.011	1
2755 NCAM2	ENST00000400546	p.G35A	c.104	0.008961774	6.802	1
2755 NCAM2	ENST00000400546	p.I85M	c.255	0.008961774	0	1
2757 NUP107	ENST00000229179	p.R669C	c.2005	0.01612005	0	1
2757 NUP107	ENST00000229179	p.F699L	c.2097	0.01612005	5.955	1
2758 YWHAG	ENST00000307630	p.V52I	c.154	0.005774853	7.436	1

2758 YWHAG	ENST00000307630	p.R57C	c.169	0.009971319	6.648	1
2758 YWHAG	ENST00000307630	p.C97S	c.289_288	0.015746172	0	1
2759 PREP	ENST00000369110	p.T590N	c.1769	0.081559684	3.616	1
2759 PREP	ENST00000369110	p.R643C	c.1927	0.081559684	0	1
2760 RTN4IP1	ENST00000369063	p.R339H	c.1016	0.004189518	0	1
2760 RTN4IP1	ENST00000369063	p.G197C	c.589	0.004189518	7.899	1
2761 PTPRS	ENST00000372412	p.T1888M	c.5663	0.032986054	5.922	1
2761 PTPRS	ENST00000372412	p.R1920L	c.5759	1.016493027	0	1
2761 PTPRS	ENST00000372412	p.R1920Q	c.5759	1.016493027	0	1
2762 SERPINE1	ENST00000223095	p.G86R	c.256	0.020847237	5.584	1
2762 SERPINE1	ENST00000223095	p.R154K	c.461	0.020847237	0	1
2763 P2RY11	ENST00000321826	p.S260T	c.778	0.030353359	0	1
2763 P2RY11	ENST00000321826	p.L312P	c.935	0.030353359	5.042	1
2764 CCNH	ENST00000256897	p.R77K	c.230	0.235753978	0	1
2764 CCNH	ENST00000256897	p.Y164S	c.491	0.137338964	3.194	1
2764 CCNH	ENST00000256897	p.D192N	c.574	0.154548287	2.983	1
2765 FBP2	ENST00000375337	p.R50C	c.148	0.291001356	0	1
2765 FBP2	ENST00000375337	p.G169S	c.505	0.181807775	2.636	1
2765 FBP2	ENST00000375337	p.T172A	c.514	0.151061818	2.942	1
2766 NFU1	ENST00000410022	p.T85I	c.254	0.209496784	2.255	1
2766 NFU1	ENST00000410022	p.F113L	c.339	0.209496784	0	1
2767 AMY2A	ENST00000414303	p.G54E	c.161	1.021463066	0	2
2767 AMY2A	ENST00000414303	p.R25W	c.73	0.042926132	5.542	1
2768 PDE2A	ENST00000334456	p.S692P	c.2074	1.12431265	0	1
2768 PDE2A	ENST00000334456	p.S692F	c.2075	1.12431265	0	1
2768 PDE2A	ENST00000334456	p.M761L	c.2281	0.203357347	3.315	1
2768 PDE2A	ENST00000334456	p.R762L	c.2285	0.080200844	5.391	1
2769 SENP1	ENST00000549518	p.A492V	c.1475	0.022081776	0	1
2769 SENP1	ENST00000549518	p.V526A	c.1577	0.022081776	5.501	1
2770 INTS3	ENST00000318967	p.R334H	c.1001	0.040442052	4.628	1
2770 INTS3	ENST00000318967	p.L135M	c.403	0.040442052	0	1
2771 PSMF1	ENST00000333082	p.S88I	c.263	0.012551469	6.316	1
2771 PSMF1	ENST00000333082	p.K125R	c.374	0.015388538	6.022	1
2771 PSMF1	ENST00000333082	p.R18S	c.54	0.027940007	0	1
2772 MTOR	ENST00000361445	p.A1459P	c.4375	0.356079467	3.546	1
2772 MTOR	ENST00000361445	p.L1460P	c.4379	1.325009345	3.652	2
2772 MTOR	ENST00000361445	p.C1483R	c.4447	3.244713928	0	1
2772 MTOR	ENST00000361445	p.C1483F	c.4448	3.244713928	0	2
2772 MTOR	ENST00000361445	p.C1483Y	c.4448	3.244713928	0	1
2773 MMP13	ENST00000260302	p.S342Y	c.1025	0.028497911	0	1
2773 MMP13	ENST00000260302	p.D407N	c.1219	0.028497911	5.133	1
2774 IGBP1	ENST00000342206	p.R98C	c.292	0.010019817	6.641	1
2774 IGBP1	ENST00000342206	p.R104Q	c.311	0.006735496	7.214	1
2774 IGBP1	ENST00000342206	p.I215L	c.643	0.016755314	0	1
2775 GSK3A	ENST0000022330	p.V240L	c.718	0.034291623	4.866	1
2775 GSK3A	ENST0000022330	p.L270W	c.809	0.034291623	0	1
2776 AOC3	ENST00000308423	p.T504S	c.1510	0.045468108	8.343	1
2776 AOC3	ENST00000308423	p.R566W	c.1696	0.164720017	3.715	1
2776 AOC3	ENST00000308423	p.P600R	c.1799	0.177235386	0	1

2776 AOC3	ENST00000308423	p.N709H	c.2125	0.148078748	3.351	1
2777 FGB	ENST00000302068	p.Q362H	c.1086	0.037917299	5.721	1
2777 FGB	ENST00000302068	p.D327N	c.979	1.018958649	0	2
2778 GPT2	ENST00000340124	p.P377H	c.1130	0.09207798	3.441	1
2778 GPT2	ENST00000340124	p.L183P	c.548	0.09207798	0	1
2779 ELAC1	ENST00000269466	p.H67Q	c.201	0.140691669	0	1
2779 ELAC1	ENST00000269466	p.A13T	c.37	0.03668159	5.6	1
2779 ELAC1	ENST00000269466	p.D253Y	c.757	0.136138637	3.058	1
2780 FKBP4	ENST0000001008	p.A338V	c.1013	0.010323967	6.833	1
2780 FKBP4	ENST0000001008	p.G360R	c.1078	0.185793191	0	1
2780 FKBP4	ENST0000001008	p.T391I	c.1172_1173	0.178574635	2.498	1
2781 ACTN2	ENST00000542672	p.Q573H	c.1719	0.017998244	5.796	1
2781 ACTN2	ENST00000542672	p.E583D	c.1749	0.021597378	5.533	1
2781 ACTN2	ENST00000542672	p.M604I	c.1812	0.039595623	0	1
2782 SNX33	ENST00000308527	p.R519H	c.1556	0.005766853	8.438	1
2782 SNX33	ENST00000308527	p.A529V	c.1586	0.012421645	7.331	1
2782 SNX33	ENST00000308527	p.H533R	c.1598	0.003069033	9.348	1
2782 SNX33	ENST00000308527	p.V283I	c.847	1.010628765	0	2
2783 WARS	ENST00000355338	p.R162W	c.484	0.110644221	0	1
2783 WARS	ENST00000355338	p.M195I	c.585	0.110644221	3.176	1
2784 FLNC	ENST00000325888	p.R1543W	c.4627	0.127696472	3.22	1
2784 FLNC	ENST00000325888	p.A1566G	c.4697	0.297179641	0	1
2784 FLNC	ENST00000325888	p.G1596D	c.4787	0.210234754	2.397	1
2785 HDAC8	ENST00000373573	p.V376A	c.1127	0.048227505	4.374	1
2785 HDAC8	ENST00000373573	p.F189L	c.567	0.010798689	6.533	1
2785 HDAC8	ENST00000373573	p.R223W	c.667	0.059026195	0	1
2786 HK2	ENST00000290573	p.R462Q	c.1385	0.008704638	6.844	1
2786 HK2	ENST00000290573	p.G74W	c.220	0.02624716	0	1
2786 HK2	ENST00000290573	p.Y219F	c.656	0.017542522	5.833	1
2787 HSD11B1	ENST00000367027	p.L128I	c.382	0.068109507	3.876	1
2787 HSD11B1	ENST00000367027	p.S196Y	c.587	0.068109507	0	1
2788 SERPIND1	ENST00000406799	p.A334T	c.1000	0.116933444	3.125	1
2788 SERPIND1	ENST00000406799	p.D343A	c.1028	0.012137029	6.521	1
2788 SERPIND1	ENST00000406799	p.R390Q	c.1169	0.134760101	0	1
2788 SERPIND1	ENST00000406799	p.F86V	c.256	0.044999372	6.757	1
2789 IL1R2	ENST00000332549	p.S145L	c.434	0.076946526	0	1
2789 IL1R2	ENST00000332549	p.D196Y	c.586	0.076946526	3.7	1
2790 GOT1	ENST00000370508	p.E179K	c.535	0.005020337	7.638	1
2790 GOT1	ENST00000370508	p.Q208H	c.624	0.019102376	0	1
2790 GOT1	ENST00000370508	p.Y243C	c.728	0.014082038	6.15	1
2791 SERPINA3	ENST00000467132	p.I251T	c.752	0.09226965	3.438	1
2791 SERPINA3	ENST00000467132	p.S302P	c.904	0.09226965	0	1
2792 HIST1H4J	ENST00000355057	p.I35V	c.103	0.084766767	3.715	1
2792 HIST1H4C	ENST00000377803	p.R56G	c.166	0.189296449	0	1
2792 HIST4H4	ENST00000539745	p.D25N	c.73	0.024392126	5.582	1
2792 HIST1H4H	ENST00000289352	p.T31A	c.91	0.101222279	3.438	1
2793 GCKR	ENST00000264717	p.N35T	c.104	0.175543554	0	1
2793 GCKR	ENST00000264717	p.G250R	c.748	0.043222507	4.718	1
2793 GCKR	ENST00000264717	p.P251L	c.752	0.142773606	2.862	1

2794 DMC1	ENST00000216024	p.M200I	c.600	0.008644511	0	1
2794 DMC1	ENST00000216024	p.A247V	c.740	0.008644511	6.854	1
2795 QSOX1	ENST00000367602	p.P342S	c.1024	0.007609408	7.038	1
2795 QSOX1	ENST00000367602	p.F535C	c.1604	0.014401163	0	1
2795 QSOX1	ENST00000367602	p.K298N	c.894	0.006791754	7.202	1
2796 DOCK2	ENST00000256935	p.G1349S	c.4045	0.03514636	5.045	1
2796 DOCK2	ENST00000256935	p.R1357W	c.4069	0.005512796	7.503	1
2796 DOCK2	ENST00000256935	p.G1395A	c.4184	0.03514636	5.045	1
2796 DOCK2	ENST00000256935	p.N1400H	c.4198	0.06609341	0	1
2797 DECR2	ENST00000219481	p.R170Q	c.509	0.010159689	6.621	1
2797 DECR2	ENST00000219481	p.G270E	c.809	0.010159689	0	1
2798 PTPRF	ENST00000359947	p.R63H	c.188	2.037986506	0	3
2798 PTPRF	ENST00000359947	p.D85G	c.254	0.079382373	5.24	1
2798 PTPRF	ENST00000359947	p.P33S	c.97	0.034577144	6.439	1
2799 PAK7	ENST00000378423	p.R433W	c.1297	2.059012318	0	3
2799 PAK7	ENST00000378423	p.R483Q	c.1448	1.140407022	7.424	2
2799 PAK7	ENST00000378423	p.D517N	c.1549	0.387973947	4.4	1
2800 BCAT2	ENST00000593515	p.R211Q	c.632	0.095193046	3.393	1
2800 BCAT2	ENST00000593515	p.E256V	c.767	0.095193046	0	1
2801 TCN1	ENST00000257264	p.A54T	c.160	0.037447157	4.739	1
2801 TCN1	ENST00000257264	p.E94Q	c.280	0.037447157	0	1
2802 CNDP1	ENST00000358821	p.F398S	c.1193	0.007218926	7.114	1
2802 CNDP1	ENST00000358821	p.S282N	c.845	0.007218926	0	1
2803 FNDC3A	ENST00000541916	p.E521Q	c.1561	0.208193943	0	1
2803 FNDC3A	ENST00000541916	p.F557L	c.1671	0.208193943	2.264	1
2804 IGF1R	ENST00000268035	p.R1042C	c.3124	0.008728806	0	1
2804 IGF1R	ENST00000268035	p.L1174M	c.3520	0.008728806	6.84	1
2805 C1QC	ENST00000374640	p.P163S	c.487	0.167738951	2.762	1
2805 C1QC	ENST00000374640	p.G164D	c.491	0.158153023	2.859	1
2805 C1QC	ENST00000374640	p.D245N	c.733	0.285253219	0	1
2806 NT5E	ENST00000257770	p.Q231H	c.693	0.040023746	5.643	1
2806 NT5E	ENST00000257770	p.R273W	c.817	1.032606917	0	2
2806 NT5E	ENST00000257770	p.V300I	c.898	0.025190088	6.311	1
2807 ARG1	ENST00000356962	p.V92E	c.275	0.023163547	5.432	1
2807 ARG1	ENST00000356962	p.A120V	c.359	0.036851021	0	1
2807 ARG1	ENST00000356962	p.T174I	c.521	0.013687474	6.191	1
2808 PTPRS	ENST00000372412	p.S1774L	c.5321	0.035996489	4.796	1
2808 PTPRS	ENST00000372412	p.R1835Q	c.5504	0.035996489	0	1
2809 CTNNBL1	ENST00000361383	p.E443Q	c.1327	0.020832792	5.585	1
2809 CTNNBL1	ENST00000361383	p.R522Q	c.1565	0.020832792	0	1
2811 ADH4	ENST00000508393	p.A34T	c.100	0.028954622	5.52	1
2811 ADH4	ENST00000508393	p.V86I	c.256	0.10386294	0	1
2811 ADH4	ENST00000508393	p.S169R	c.507	0.083858613	3.607	1
2812 VAV1	ENST00000602142	p.P508L	c.1523	0.009992075	0	1
2812 VAV1	ENST00000602142	p.E556K	c.1666	0.009992075	6.645	1
2813 TLR8	ENST00000311912	p.H788R	c.2363	0.066339157	0	1
2813 TLR8	ENST00000311912	p.P814T	c.2440	0.057688689	4.476	1
2813 TLR8	ENST00000311912	p.I820M	c.2460	0.02140364	5.546	1
2814 RPS3A	ENST00000274065	p.H124Y	c.370	0.002538162	8.622	1

2814	RPS3A	ENST00000274065	p.L218P	c.653	0.002538162	0	1
2815	ZSWIM2	ENST00000295131	p.Y247H	c.739	0.392673367	2.502	1
2815	ZSWIM2	ENST00000295131	p.T250S	c.749	0.488364792	2.156	1
2815	ZSWIM2	ENST00000295131	p.T273A	c.817	1.400909313	0	1
2815	ZSWIM2	ENST00000295131	p.T273I	c.818	1.400909313	0	1
2817	ETF1	ENST00000360541	p.A7T	c.19	0.012166011	6.361	1
2817	ETF1	ENST00000360541	p.Q282K	c.844	0.012166011	0	1
2819	ALOX15B	ENST00000380183	p.S550F	c.1649	0.159099367	2.652	1
2819	ALOX15B	ENST00000380183	p.E671K	c.2011	0.159099367	0	1
2820	AGTR1	ENST00000404754	p.L212I	c.634	0.017836792	5.809	1
2820	AGTR1	ENST00000404754	p.L247F	c.739	0.017836792	0	1
2821	PIR	ENST00000380421	p.A74T	c.220	0.040358042	4.631	1
2821	PIR	ENST00000380421	p.P105T	c.313	0.040358042	0	1
2822	TNFSF4	ENST00000281834	p.N96S	c.287	0.008765183	6.834	1
2822	TNFSF4	ENST00000281834	p.E179K	c.535	0.008765183	0	1
2823	NAGK	ENST00000455662	p.I170V	c.508	0.015336031	6.415	1
2823	NAGK	ENST00000455662	p.G191A	c.572	0.024990966	5.548	1
2823	NAGK	ENST00000455662	p.H291Y	c.871	0.033093044	0	1
2824	RPL26	ENST00000583011	p.R50Q	c.149	0.001433741	0	1
2824	RPL26	ENST00000583011	p.R26G	c.76	0.001433741	9.446	1
2825	S100A13	ENST00000368699	p.H48Y	c.142	0.107917445	0	1
2825	S100A13	ENST00000368699	p.D92H	c.274	0.107917445	3.212	1
2826	USP7	ENST00000344836	p.Y1050C	c.3149	0.157890908	2.663	1
2826	USP7	ENST00000344836	p.D1080N	c.3238	0.157890908	0	1
2827	ME2	ENST00000321341	p.T423A	c.1267	0.124826833	0	1
2827	ME2	ENST00000321341	p.S447G	c.1339	0.124826833	3.002	1
2828	RIMS1	ENST00000521978	p.V600G	c.1799	0.25	2	1
2828	RIMS1	ENST00000521978	p.G648V	c.1943	0.25	0	1
2829	RNASEL	ENST00000444138	p.V181I	c.541	0.012157581	0	1
2829	RNASEL	ENST00000444138	p.V218M	c.652	0.012157581	6.362	1
2830	MGAM	ENST00000475668	p.V1008F	c.3022	0.016356411	0	1
2830	MGAM	ENST00000475668	p.K1088T	c.3263	0.016356411	5.934	1
2831	LY96	ENST00000284818	p.G129V	c.386	0.008728806	6.84	1
2831	LY96	ENST00000284818	p.S159P	c.475	0.016498104	0	1
2831	LY96	ENST00000284818	p.S27A	c.79	0.007769298	7.008	1
2832	SLC3A2	ENST00000377892	p.I336L	c.1006	0.034267862	0	1
2832	SLC3A2	ENST00000377892	p.E366K	c.1096	0.034267862	4.867	1
2833	CBS	ENST00000352178	p.P88L	c.263	1.008869079	0	1
2833	CBS	ENST00000352178	p.P88N	c.263_262	1.008869079	0	1
2833	CBS	ENST00000352178	p.R121H	c.362	0.048023635	6.817	1
2834	HDAC2	ENST00000398283	p.A351T	c.1051	1.165411251	0	1
2834	HDAC2	ENST00000398283	p.A351V	c.1052	1.165411251	0	1
2834	HDAC2	ENST00000398283	p.P389L	c.1166	0.235079487	3.455	1
2834	HDAC2	ENST00000398283	p.H262Y	c.784	0.201146903	3.752	1
2835	OTUB1	ENST00000422031	p.R131Q	c.392	0.144686277	2.789	1
2835	OTUB1	ENST00000422031	p.D206N	c.616	0.144686277	0	1
2836	IL12B	ENST00000231228	p.S155N	c.464	0.043003679	5.082	1
2836	IL12B	ENST00000231228	p.V215F	c.643	0.106520662	3.426	1
2836	IL12B	ENST00000231228	p.L26P	c.77	0.122563673	0	1

2837 ADARB1	ENST00000496664	p.A366T	c.1096	0.00951883	0	1
2837 ADARB1	ENST00000496664	p.R329H	c.986	0.00951883	6.715	1
2838 FLT4	ENST00000261937	p.G53R	c.157	0.019108974	6.614	1
2838 FLT4	ENST00000261937	p.C111Y	c.332	0.058203174	0	1
2838 FLT4	ENST00000261937	p.L32M	c.94	0.056893941	4.381	1
2839 SH3GL3	ENST00000324537	p.L169Q	c.506	0.009466193	6.723	1
2839 SH3GL3	ENST00000324537	p.L204V	c.610	0.009466193	0	1
2840 MLLT4	ENST00000400822	p.L990in_frame_del	c.2965_2967	0.280527544	4.308	1
2840 MLLT4	ENST00000400822	p.E1003K	c.3007	0.287052545	2.39	1
2840 MLLT4	ENST00000400822	p.Y1035C	c.3104	0.695389448	0	1
2840 MLLT4	ENST00000400822	p.R1072M	c.3215	0.547768386	2.054	1
2840 MLLT4	ENST00000400822	p.A1074T	c.3220	0.316137957	2.229	1
2841 GSTM4	ENST00000369836	p.I10S	c.29	0.049381343	0	1
2841 GSTM4	ENST00000369836	p.L166I	c.496	0.007888682	6.986	1
2841 GSTM4	ENST00000369836	p.P205R	c.614	0.041492661	4.591	1
2842 TBL1XR1	ENST00000457928	p.T192I	c.575	0.076680311	3.705	1
2842 TBL1XR1	ENST00000457928	p.V228A	c.683	0.076680311	0	1
2843 MAP3K5	ENST00000359015	p.L765F	c.2293	0.073914438	3.758	1
2843 MAP3K5	ENST00000359015	p.F782L	c.2346	0.011382806	6.457	1
2843 MAP3K5	ENST00000359015	p.I811V	c.2431	0.085297243	0	1
2844 FYN	ENST00000368667	p.K347N	c.1041	0.145894763	2.777	1
2844 FYN	ENST00000368667	p.L397I	c.1189	0.145894763	0	1
2845 MACROD2	ENST00000310348	p.A149S	c.445	0.034267862	4.867	1
2845 MACROD2	ENST00000310348	p.P193S	c.577	0.034267862	0	1
2846 CCL1	ENST00000225842	p.S58C	c.173	1.013387218	0	1
2846 CCL1	ENST00000225842	p.S58F	c.173	1.013387218	0	1
2846 CCL1	ENST00000225842	p.R32G	c.94	0.026774436	6.223	1
2847 TAT	ENST00000355962	p.M97I	c.291	0.007080171	0	1
2847 TAT	ENST00000355962	p.T321I	c.962	0.007080171	7.142	1
2848 SULT1E1	ENST00000226444	p.R129Q	c.386	0.014548357	6.103	1
2848 SULT1E1	ENST00000226444	p.R291Q	c.872	0.014548357	0	1
2849 PTEN	ENST00000371953	p.F215S	c.644	0.082412101	4.601	1
2849 PTEN	ENST00000371953	p.V255in_frame_del	c.762_764	1.04120605	0	1
2849 PTEN	ENST00000371953	p.V255G	c.764	1.04120605	0	1
2850 HSD17B4	ENST00000504811	p.L246V	c.736	0.056523711	4.145	1
2850 HSD17B4	ENST00000504811	p.L248F	c.742	0.006381008	7.292	1
2850 HSD17B4	ENST00000504811	p.V294L	c.880	0.062904719	0	1
2851 ECHDC3	ENST00000379215	p.H138D	c.412	0.018945513	5.722	1
2851 ECHDC3	ENST00000379215	p.S249F	c.746	0.018945513	0	1
2852 PDE3A	ENST00000359062	p.A828V	c.2483	0.07858549	3.7	1
2852 PDE3A	ENST00000359062	p.L829M	c.2485	0.022939005	5.553	1
2852 PDE3A	ENST00000359062	p.V901F	c.2701	0.098246567	0	1
2853 FBXO30	ENST00000237281	p.V40A	c.119	0.084553014	3.564	1
2853 FBXO30	ENST00000237281	p.R17W	c.49	0.084553014	0	1
2854 SULT1B1	ENST00000310613	p.P116S	c.346	0.06348857	4.032	1
2854 SULT1B1	ENST00000310613	p.L115in_frame_del	c.346_344	0.075020838	5.83	1
2854 SULT1B1	ENST00000310613	p.S118F	c.353	0.022306377	5.572	1
2854 SULT1B1	ENST00000310613	p.W180S	c.539	0.057358093	9.979	1
2854 SULT1B1	ENST00000310613	p.E32K	c.94	0.10072025	0	1

2855	ITGB3	ENST00000559488	p.E511K	c.1531	0.018542762	5.753	1
2855	ITGB3	ENST00000559488	p.S61L	c.182	0.018542762	0	1
2856	AMPH	ENST00000356264	p.E40K	c.118	1.077863104	0	2
2856	AMPH	ENST00000356264	p.R138H	c.413	0.095916714	4.404	1
2856	AMPH	ENST00000356264	p.S139C	c.415	0.062702932	5.029	1
2857	CFH	ENST00000367429	p.E902D	c.2706	0.152936005	0	1
2857	CFH	ENST00000367429	p.E976K	c.2926	0.152936005	2.709	1
2858	CLK3	ENST00000395066	p.R156H	c.467	0.028577034	0	1
2858	CLK3	ENST00000395066	p.R223Q	c.668	0.028577034	5.129	1
2859	POLG	ENST00000442287	p.E944Q	c.2830	0.023083407	5.437	1
2859	POLG	ENST00000442287	p.R1071C	c.3211	0.023083407	0	1
2860	PKN1	ENST00000342216	p.V134M	c.400	0.43951978	2.186	1
2860	PKN1	ENST00000342216	p.A193V	c.578	1.21975989	0	2
2861	RCC1	ENST00000373831	p.R351W	c.1051	0.024586326	5.346	1
2861	RCC1	ENST00000373831	p.Q302H	c.906	0.024586326	0	1
2862	ACTB	ENST00000331789	p.A220T	c.658	0.021994248	0	1
2862	ACTB	ENST00000331789	p.R254Q	c.761	0.015517309	7.018	1
2862	ACTB	ENST00000331789	p.K315in_frame_del	c.945_943	0.014278616	6.13	1
2863	AKR7A2	ENST00000235835	p.V350A	c.1049	0.022127741	6.498	1
2863	AKR7A2	ENST00000235835	p.A202T	c.604	1.018915308	0	2
2863	AKR7A2	ENST00000235835	p.Y225C	c.674	0.006815334	8.197	1
2863	AKR7A2	ENST00000235835	p.R297P	c.890	0.008887541	7.814	1
2864	GP1BA	ENST00000329125	p.E197D	c.591	0.010598471	0	1
2864	GP1BA	ENST00000329125	p.P222T	c.664	0.010598471	6.56	1
2865	KIF5B	ENST00000302418	p.N78H	c.232	0.038393343	4.703	1
2865	KIF5B	ENST00000302418	p.V329A	c.986	0.038393343	0	1
2866	HHIP	ENST00000296575	p.R241H	c.722	0.267944757	2.923	1
2866	HHIP	ENST00000296575	p.I253T	c.758	0.068540846	4.959	1
2866	HHIP	ENST00000296575	p.P331L	c.992	1.164003624	0	2
2867	GRB7	ENST00000445327	p.S460P	c.1378	0.096388177	0	1
2867	GRB7	ENST00000445327	p.E510A	c.1529	0.096388177	3.375	1
2868	ING5	ENST00000313552	p.D203N	c.607	0.142003658	2.816	1
2868	ING5	ENST00000313552	p.W227R	c.679	0.142003658	0	1
2869	ZMPSTE24	ENST00000372759	p.Y218H	c.652	0.006939272	7.171	1
2869	ZMPSTE24	ENST00000372759	p.T250M	c.749	0.074428553	3.748	1
2869	ZMPSTE24	ENST00000372759	p.R276Q	c.827	0.081367825	0	1
2870	CTSS	ENST00000368985	p.R103K	c.308	0.011573748	6.433	1
2870	CTSS	ENST00000368985	p.T228I	c.683	0.011573748	0	1
2871	HDC	ENST00000267845	p.D395N	c.1183	0.156366135	0	1
2871	HDC	ENST00000267845	p.R468Q	c.1403	0.156366135	2.677	1
2872	AGTR1	ENST00000404754	p.M334I	c.1002	0.10036135	3.339	1
2872	AGTR1	ENST00000404754	p.A225G	c.674	0.114383792	0	1
2872	AGTR1	ENST00000404754	p.L330F	c.988	0.017097863	6.006	1
2873	ABL1	ENST00000372348	p.M370T	c.1109	0.162423464	4.672	1
2873	ABL1	ENST00000372348	p.E472K	c.1414	1.042521121	0	1
2873	ABL1	ENST00000372348	p.E472Q	c.1414	1.042521121	0	1
2873	ABL1	ENST00000372348	p.K473in_frame_del	c.1415_1417	0.090556707	8.246	1
2874	ENAH	ENST00000284563	p.V35F	c.103	0.009398705	0	1
2874	ENAH	ENST00000284563	p.G88D	c.263	0.00544067	7.522	1

2874	ENAH	ENST00000284563	p.A103V	c.308	0.003958035	7.981	1
2875	CHI3L1	ENST00000255409	p.A347V	c.1040	0.01236152	0	1
2875	CHI3L1	ENST00000255409	p.D199N	c.595	0.01236152	6.338	1
2876	SNRNP200	ENST00000323853	p.G1353R	c.4057	0.060329189	4.051	1
2876	SNRNP200	ENST00000323853	p.G1689D	c.5066	0.060329189	0	1
2877	SIRT5	ENST00000606117	p.A41G	c.122	0.011897141	6.526	1
2877	SIRT5	ENST00000606117	p.R44Q	c.131	0.11225282	3.375	1
2877	SIRT5	ENST00000606117	p.R119H	c.356	0.02251551	9.637	1
2877	SIRT5	ENST00000606117	p.A120T	c.358	0.032697117	5.752	1
2877	SIRT5	ENST00000606117	p.E299K	c.895	0.127050963	0	1
2878	GAMT	ENST00000447102	p.W174C	c.522	0.011319861	6.465	1
2878	GAMT	ENST00000447102	p.G175E	c.524	0.004762715	7.714	1
2879	KDM6A	ENST00000382899	p.N1158S	c.3473	0.158219574	2.66	1
2879	KDM6A	ENST00000382899	p.R1262W	c.3784	0.158219574	0	1
2880	ITGB6	ENST00000283249	p.E376Q	c.1126	0.076292396	3.797	1
2880	ITGB6	ENST00000283249	p.K404N	c.1212	0.132397864	0	1
2880	ITGB6	ENST00000283249	p.L497M	c.1489	0.064804074	4.048	1
2881	REG1A	ENST00000233735	p.A42D	c.125	0.068630801	3.865	1
2881	REG1A	ENST00000233735	p.F83I	c.247	0.068630801	0	1
2882	OXCT1	ENST00000196371	p.R355Q	c.1064	0.082640913	3.597	1
2882	OXCT1	ENST00000196371	p.T372N	c.1115	0.010686995	6.548	1
2882	OXCT1	ENST00000196371	p.L374F	c.1120	0.004809158	7.7	1
2882	OXCT1	ENST00000196371	p.R285Q	c.854	0.098137065	0	1
2883	ACLY	ENST00000590151	p.R66C	c.196	0.317537746	2.655	1
2883	ACLY	ENST00000590151	p.E8K	c.22	1.158768873	0	1
2883	ACLY	ENST00000590151	p.E8Q	c.22	1.158768873	0	1
2884	B3GAT2	ENST00000230053	p.D243N	c.727	0.011849746	6.399	1
2884	B3GAT2	ENST00000230053	p.L277V	c.829	0.011849746	0	1
2885	KLK4	ENST00000598305	p.R9Q	c.26	0.274428665	2.941	1
2885	KLK4	ENST00000598305	p.V2M	c.4	0.032904414	6.078	1
2885	KLK4	ENST00000598305	p.L22I	c.64	0.209089585	3.432	1
2886	DDR1	ENST00000513240	p.E361K	c.1081	1.016630784	0	2
2886	DDR1	ENST00000513240	p.G237W	c.709	0.033261568	5.91	1
2887	GCDH	ENST00000591470	p.R355H	c.1064	0.054033577	0	1
2887	GCDH	ENST00000591470	p.S119L	c.356	0.054033577	4.21	1
2888	PLG	ENST00000308192	p.T500M	c.1499	0.021672359	0	1
2888	PLG	ENST00000308192	p.C543Y	c.1628	0.021672359	5.528	1
2889	MAGI1	ENST00000402939	p.P492L	c.1475	0.508147407	2.189	1
2889	MAGI1	ENST00000402939	p.L528V	c.1582	0.100041625	6.035	1
2889	MAGI1	ENST00000402939	p.T531A	c.1591	1.234553883	0	1
2889	MAGI1	ENST00000402939	p.T531K	c.1592	1.234553883	0	1
2890	UGDH	ENST00000316423	p.I455T	c.1364	0.008584799	0	1
2890	UGDH	ENST00000316423	p.F2L	c.4	0.008584799	6.864	1
2891	MGAM	ENST00000475668	p.P1222S	c.3664	0.017169164	8.662	1
2891	MGAM	ENST00000475668	p.R2531W	c.7591	0.037354599	6.09	1
2891	MGAM	ENST00000475668	p.E2536Q	c.7606	0.211843934	2.574	1
2891	MGAM	ENST00000475668	p.A2555V	c.7664	0.281404566	2.775	1
2891	MGAM	ENST00000475668	p.H2606Y	c.7816	0.133114011	6.251	1
2891	MGAM	ENST00000475668	p.R2608C	c.7822	0.344313786	0	1

2892	CXCL5	ENST00000296027	p.I63S	c.188	0.200406332	0	1
2892	CXCL5	ENST00000296027	p.L84P	c.251	0.200406332	2.319	1
2893	P2RY12	ENST00000302632	p.A46T	c.136	0.244441806	2.49	1
2893	P2RY12	ENST00000302632	p.M47I	c.141	0.219185013	2.669	1
2893	P2RY12	ENST00000302632	p.I53T	c.158	0.288391616	2.211	1
2893	P2RY12	ENST00000302632	p.M312V	c.934	0.551226443	0	1
2894	AR	ENST00000374690	p.L729I	c.2185	0.163129963	0	1
2894	AR	ENST00000374690	p.F814V	c.2440	0.076147675	3.844	1
2894	AR	ENST00000374690	p.F828L	c.2482	0.100003432	3.419	1
2895	FCN1	ENST00000371806	p.C111S	c.332	0.025155192	0	1
2895	FCN1	ENST00000371806	p.E228K	c.682	0.025155192	5.313	1
2896	PDE8A	ENST00000394553	p.D563V	c.1688	0.025648175	5.285	1
2896	PDE8A	ENST00000394553	p.A725V	c.2174	0.025648175	0	1
2897	GRM7	ENST00000467425	p.Q337E	c.1009	0.05147523	0	1
2897	GRM7	ENST00000467425	p.Q205H	c.615	0.025594897	5.288	1
2897	GRM7	ENST00000467425	p.G312R	c.934	0.025880333	5.272	1
2898	ALDH18A1	ENST00000371224	p.R456H	c.1367	0.015303442	6.03	1
2898	ALDH18A1	ENST00000371224	p.L787I	c.2359	0.015303442	0	1
2899	HDAC4	ENST00000345617	p.K958N	c.2874	0.018853811	0	1
2899	HDAC4	ENST00000345617	p.E996D	c.2988	0.018853811	5.729	1
2900	PHKG2	ENST00000328273	p.E114K	c.340	0.109045179	3.265	1
2900	PHKG2	ENST00000328273	p.E157K	c.469	0.152285788	0	1
2900	PHKG2	ENST00000328273	p.Y193H	c.577	0.059896481	4.373	1
2901	TRIM41	ENST00000315073	p.E239K	c.715	0.171347851	0	1
2901	TRIM41	ENST00000315073	p.V260M	c.778	0.171347851	2.545	1
2902	DNMT1	ENST00000359526	p.F1312L	c.3934	0.057193698	4.128	1
2902	DNMT1	ENST00000359526	p.V1359M	c.4075	0.057193698	0	1
2903	KCNU1	ENST00000399881	p.F348L	c.1044	0.011816937	6.403	1
2903	KCNU1	ENST00000399881	p.R350K	c.1049	0.008602669	6.861	1
2903	KCNU1	ENST00000399881	p.S908Y	c.2723	0.020419606	0	1
2904	SI	ENST00000264382	p.S727N	c.2180	0.013696964	7.19	1
2904	SI	ENST00000264382	p.R250C	c.748	1.006848482	0	2
2905	HNMT	ENST00000280097	p.D180E	c.540	0.014659706	6.092	1
2905	HNMT	ENST00000280097	p.S201T	c.601	0.027626809	0	1
2905	HNMT	ENST00000280097	p.L285V	c.853	0.012967103	6.269	1
2906	AMPH	ENST00000356264	p.R149C	c.445	1.011265069	0	1
2906	AMPH	ENST00000356264	p.R149H	c.446	1.011265069	0	1
2906	AMPH	ENST00000356264	p.A176T	c.526	0.022530139	6.472	1
2907	CR1	ENST00000367052	p.F1320L	c.3960	0.045112661	0	1
2907	CR1	ENST00000367052	p.G1376E	c.4127	0.006479059	7.27	1
2907	CR1	ENST00000367052	p.G1378R	c.4132	0.038633602	4.694	1
2908	PNLIPRP1	ENST00000358834	p.F230L	c.690	0.062916332	5.057	1
2908	PNLIPRP1	ENST00000358834	p.L231V	c.691	0.084086711	4.061	1
2908	PNLIPRP1	ENST00000358834	p.A259V	c.776	0.091292381	0	1
2908	PNLIPRP1	ENST00000358834	p.S261F	c.782	0.054792216	9.543	1
2909	GSTM2	ENST00000369831	p.R96C	c.286	0.069444296	3.848	1
2909	GSTM2	ENST00000369831	p.L149I	c.445	0.069444296	0	1
2910	PRLR	ENST00000382002	p.H65Y	c.193	0.100362157	3.414	1
2910	PRLR	ENST00000382002	p.E67K	c.199	0.071488332	4.83	1

2910 PRLR	ENST00000382002	p.Y99S	c.296	0.16357754	0	1
2910 PRLR	ENST00000382002	p.D120E	c.360	0.070880105	4.853	1
2911 ACE	ENST00000290866	p.R482C	c.1444	2.082177159	0	2
2911 ACE	ENST00000290866	p.R482H	c.1445	2.082177159	0	1
2911 ACE	ENST00000290866	p.R487H	c.1460	0.229798563	9.595	1
2911 ACE	ENST00000290866	p.E241K	c.721	0.26199493	3.628	1
2912 IL34	ENST00000288098	p.S65N	c.194	0.174552363	0	1
2912 IL34	ENST00000288098	p.S104L	c.311	0.072079847	3.936	1
2912 IL34	ENST00000288098	p.D107N	c.319	0.005982648	7.385	1
2912 IL34	ENST00000288098	p.K157M	c.470	0.109979548	3.276	1
2913 RBFOX2	ENST00000438146	p.K182N	c.546	0.099098017	3.335	1
2913 RBFOX2	ENST00000438146	p.D235Y	c.703	0.099098017	0	1
2914 DDC	ENST00000444124	p.V184A	c.551	0.107544079	3.217	1
2914 DDC	ENST00000444124	p.P236S	c.706	0.107544079	0	1
2915 FURIN	ENST00000268171	p.L428V	c.1282	0.023552108	5.408	1
2915 FURIN	ENST00000268171	p.R130L	c.389	0.023552108	0	1
2916 SNRNP200	ENST00000323853	p.S1230I	c.3689	0.037085525	0	1
2916 SNRNP200	ENST00000323853	p.R1269Q	c.3806	0.037085525	4.753	1
2917 DYRK2	ENST00000344096	p.T117R	c.350	0.180391159	2.6	1
2917 DYRK2	ENST00000344096	p.M143V	c.427	0.213974995	0	1
2917 DYRK2	ENST00000344096	p.R221S	c.663	0.064489177	4.35	1
2919 MAPK7	ENST00000308406	p.R335H	c.1004	1.066661611	0	2
2919 MAPK7	ENST00000308406	p.A229V	c.686	0.144713921	3.907	1
2920 CUL1	ENST00000602748	p.V204I	c.610	0.009297123	0	1
2920 CUL1	ENST00000602748	p.H280Y	c.838	0.009297123	6.749	1
2921 GRM3	ENST00000361669	p.D461H	c.1381	0.045280821	8.311	1
2921 GRM3	ENST00000361669	p.G462R	c.1384	1.083920813	0	2
2921 GRM3	ENST00000361669	p.V191M	c.571	0.200527403	3.63	1
2922 PARK2	ENST00000366898	p.D464N	c.1390	0.115962246	3.505	1
2922 PARK2	ENST00000366898	p.S145N	c.434	0.174710049	0	1
2922 PARK2	ENST00000366898	p.I229F	c.685	0.059445287	4.238	1
2922 PARK2	ENST00000366898	p.A230T	c.688	0.058626623	4.894	1
2923 VCP	ENST00000358901	p.R93C	c.277	0.027508094	5.184	1
2923 VCP	ENST00000358901	p.E192Q	c.574	0.04915043	0	1
2923 VCP	ENST00000358901	p.P227T	c.679	0.021642335	5.53	1
2924 KLK4	ENST00000598305	p.A43V	c.128	0.007515058	7.056	1
2925 AOC1	ENST00000416793	p.T68S	c.203	0.007758535	0	1
2925 AOC1	ENST00000416793	p.T112I	c.335	0.007758535	7.01	1
2926 TRIM29	ENST00000341846	p.F235C	c.704	0.121666172	3.039	1
2926 TRIM29	ENST00000341846	p.T257I	c.770	0.121666172	0	1
2927 LIFR	ENST00000263409	p.P364T	c.1090	0.010221991	9.909	1
2927 LIFR	ENST00000263409	p.R365H	c.1094	0.133608728	0	1
2927 LIFR	ENST00000263409	p.S310T	c.929	0.015525893	6.164	1
2927 LIFR	ENST00000263409	p.V326I	c.976	0.005339795	7.549	1
2927 LIFR	ENST00000263409	p.F328V	c.982	0.124044435	3.142	1
2928 TRAF6	ENST00000348124	p.P423L	c.1268	0.022498927	5.474	1
2928 TRAF6	ENST00000348124	p.R502S	c.1504	0.022498927	0	1
2929 RPL13	ENST00000567815	p.S97Y	c.290	0.003370083	8.213	1
2929 RPL13	ENST00000567815	p.V154A	c.461	0.003370083	0	1

2930 LIMK1	ENST00000418310	p.S493F	c.1478	0.065698307	0	1
2930 LIMK1	ENST00000418310	p.V568I	c.1702	0.065698307	3.928	1
2931 RB1	ENST00000267163	p.M379L	c.1135	0.054695593	6.384	1
2931 RB1	ENST00000267163	p.Y659F	c.1976	0.107430937	0	1
2931 RB1	ENST00000267163	p.I782M	c.2346	0.096600311	3.389	1
2932 CYP11B2	ENST00000323110	p.G46D	c.137	0.007699604	7.021	1
2932 CYP11B2	ENST00000323110	p.T71I	c.213_212	0.007699604	0	1
2933 ANK1	ENST00000396942	p.L556Q	c.1667	0.011010318	6.505	1
2933 ANK1	ENST00000396942	p.G592A	c.1775	0.011010318	0	1
2934 FYN	ENST00000368667	p.S451F	c.1352	0.091632297	3.448	1
2934 FYN	ENST00000368667	p.T512N	c.1535	0.091632297	0	1
2935 ROBO2	ENST00000332191	p.A559V	c.1676	0.214641359	2.22	1
2935 ROBO2	ENST00000332191	p.A597V	c.1790	0.214641359	0	1
2936 AQP6	ENST00000315520	p.A84V	c.251_252	0.065743861	3.927	1
2936 AQP6	ENST00000315520	p.A224T	c.670	0.065743861	0	1
2937 ACOT13	ENST00000230048	p.L96I	c.286	0.00541809	0	1
2937 ACOT13	ENST00000230048	p.T125R	c.374	0.00541809	7.528	1
2938 FBP1	ENST00000375326	p.R111K	c.332	0.023980408	5.382	1
2938 FBP1	ENST00000375326	p.R141I	c.422	0.023980408	0	1
2939 XRCC4	ENST00000338635	p.L36P	c.107	0.015871185	6.712	1
2939 XRCC4	ENST00000338635	p.R7I	c.20	0.020336707	6.158	1
2939 XRCC4	ENST00000338635	p.F86L	c.256	0.029484135	0	1
2939 XRCC4	ENST00000338635	p.G109V	c.326	0.005941323	7.395	1
2940 IL2RA	ENST00000379959	p.A34T	c.100	0.013859605	7.53	1
2940 IL2RA	ENST00000379959	p.R56H	c.167	0.070700319	0	1
2940 IL2RA	ENST00000379959	p.S84N	c.251	0.065289735	3.937	1
2941 SOS1	ENST00000426016	p.N233Y	c.697	3.008379036	0	4
2941 SOS1	ENST00000426016	p.I327V	c.979	0.033516144	6.899	1
2942 SBDS	ENST00000246868	p.A136V	c.407	1.182504001	0	2
2942 SBDS	ENST00000246868	p.M165I	c.495	0.365008003	2.454	1
2943 NR4A2	ENST00000539077	p.S496F	c.1487	0.004041201	0	1
2943 NR4A2	ENST00000539077	p.G580W	c.1738	0.004041201	7.951	1
2944 HBE1	ENST00000380237	p.E7K	c.19	0.005762857	7.439	1
2944 HBE1	ENST00000380237	p.I76T	c.227	0.005835209	7.421	1
2944 HBE1	ENST00000380237	p.K133N	c.399	0.011598066	0	1
2945 GTF2B	ENST00000370500	p.R248K	c.743	1.092837062	0	1
2945 GTF2B	ENST00000370500	p.R248M	c.743	1.092837062	0	1
2945 GTF2B	ENST00000370500	p.A256S	c.766	0.278351198	5.788	1
2945 GTF2B	ENST00000370500	p.S288P	c.862	0.391632022	3.742	1
2946 SULT2A1	ENST00000222002	p.T85A	c.253	0.016968467	0	1
2946 SULT2A1	ENST00000222002	p.F18L	c.54	0.016968467	5.881	1
2947 CDC37	ENST00000222005	p.E184K	c.550	0.04258798	0	1
2947 CDC37	ENST00000222005	p.Q217P	c.650	0.023324662	5.422	1
2947 CDC37	ENST00000222005	p.R231W	c.691	0.019263318	5.698	1
2948 PARP12	ENST00000263549	p.G565S	c.1693	0.109348096	3.193	1
2948 PARP12	ENST00000263549	p.S608R	c.1824	0.109348096	0	1
2949 GSTO1	ENST00000369713	p.L157P	c.470	0.018478609	0	1
2949 GSTO1	ENST00000369713	p.K200T	c.599	0.018478609	5.758	1
2950 FGF1	ENST00000359370	p.T111P	c.331	0.029787799	5.95	1

2950	FGF1	ENST00000359370	p.L148F	c.442	0.181916734	0	1
2950	FGF1	ENST00000359370	p.L29I	c.85	0.179352504	2.593	1
2951	AKT1	ENST00000402615	p.W80R	c.238	0.085976651	0	1
2951	AKT1	ENST00000402615	p.V201I	c.601	0.044359358	4.556	1
2951	AKT1	ENST00000402615	p.T211I	c.632	0.04531283	4.524	1
2952	PNLIP	ENST00000369221	p.T221K	c.662	0.11486411	0	1
2952	PNLIP	ENST00000369221	p.N279Y	c.835	0.11486411	3.122	1
2953	USP7	ENST00000344836	p.E663K	c.1987	0.141218402	2.824	1
2953	USP7	ENST00000344836	p.H704Y	c.2110	0.141218402	0	1
2954	GSN	ENST00000373818	p.D472Y	c.1414	0.125782228	2.991	1
2954	GSN	ENST00000373818	p.R553H	c.1658	0.125782228	0	1
2955	FARSB	ENST00000281828	p.V6M	c.16	0.01574373	8.586	1
2955	FARSB	ENST00000281828	p.V67I	c.199	0.153015173	0	1
2955	FARSB	ENST00000281828	p.P2L	c.5	0.150412878	2.733	1
2956	TYK2	ENST00000264818	p.Q1102H	c.3306	0.027718635	5.173	1
2956	TYK2	ENST00000264818	p.R1136W	c.3406	0.027718635	0	1
2957	IMPDH1	ENST00000338791	p.K460N	c.1380	0.009074287	7.784	1
2957	IMPDH1	ENST00000338791	p.R565W	c.1693	1.037821775	0	1
2957	IMPDH1	ENST00000338791	p.R565Q	c.1694	1.037821775	0	1
2957	IMPDH1	ENST00000338791	p.T137N	c.410	0.066569263	4.909	1
2958	SI	ENST00000264382	p.E171G	c.512	0.007845059	0	1
2958	SI	ENST00000264382	p.N298S	c.893	0.007845059	6.994	1
2959	TCERG1	ENST00000296702	p.D1018V	c.3053	0.078454499	3.672	1
2959	TCERG1	ENST00000296702	p.R1056Q	c.3167	0.078454499	0	1
2960	KIT	ENST00000288135	p.P37A	c.109	0.009813612	6.671	1
2960	KIT	ENST00000288135	p.V64G	c.191	0.011694711	6.418	1
2960	KIT	ENST00000288135	p.G102S	c.304	0.021508323	0	1
2961	SORD	ENST00000267814	p.M66V	c.196	0.131944215	2.922	1
2961	SORD	ENST00000267814	p.E95K	c.283	0.006606033	7.242	1
2961	SORD	ENST00000267814	p.D125N	c.373	0.138550248	0	1
2962	RWDD3	ENST00000370202	p.P62S	c.184	0.255607133	1.968	1
2962	RWDD3	ENST00000370202	p.S96P	c.286	0.255607133	0	1
2963	DPYSL5	ENST00000288699	p.A76S	c.226	0.009271381	6.753	1
2963	DPYSL5	ENST00000288699	p.P328S	c.982	0.009271381	0	1
2964	IL13RA1	ENST00000371666	p.L38V	c.112	0.026455144	5.434	1
2964	IL13RA1	ENST00000371666	p.H69N	c.205	0.147010542	2.799	1
2964	IL13RA1	ENST00000371666	p.Q97K	c.289	0.166818314	0	1
2965	TYK2	ENST00000264818	p.Y376C	c.1127	0.077079511	3.86	1
2965	TYK2	ENST00000264818	p.L403M	c.1207	0.066273062	4.091	1
2965	TYK2	ENST00000264818	p.V420L	c.1258	0.068260252	4.046	1
2965	TYK2	ENST00000264818	p.I324M	c.972	0.188087191	0	1
2967	CD38	ENST00000226279	p.Y106C	c.317	0.025347724	5.302	1
2967	CD38	ENST00000226279	p.N183I	c.548	0.025347724	0	1
2968	PC	ENST00000393958	p.F660I	c.1978	0.014802657	6.078	1
2968	PC	ENST00000393958	p.G953C	c.2857	0.014538276	6.104	1
2968	PC	ENST00000393958	p.R977W	c.2929	0.029340933	0	1
2969	KMT2A	ENST00000534358	p.K1574R	c.4721	0.236842518	0	1
2969	KMT2A	ENST00000534358	p.H1596Y	c.4786	0.236842518	2.078	1
2970	GLRX3	ENST00000481034	p.M249I	c.747	0.05695633	4.134	1

2970	GLRX3	ENST00000481034	p.T280I	c.839	0.05695633	0	1
2971	PSMD7	ENST00000219313	p.V35G	c.104	0.020731955	0	1
2971	PSMD7	ENST00000219313	p.V56A	c.167	0.020731955	5.592	1
2972	BROX	ENST00000340934	p.A371T	c.1111	0.006838995	7.192	1
2972	BROX	ENST00000340934	p.G26D	c.77	0.006838995	0	1
2973	SERPINA10	ENST00000261994	p.E150D	c.450	0.033936933	0	1
2973	SERPINA10	ENST00000261994	p.R184K	c.551	0.033936933	4.881	1
2974	GRIA2	ENST00000296526	p.K95T	c.284	0.012788581	0	1
2974	GRIA2	ENST00000296526	p.G120A	c.359	0.012788581	6.289	1
2975	NF2	ENST00000432151	p.D86G	c.257	0.00626704	7.318	1
2976	LINGO1	ENST00000355300	p.A502T	c.1504	0.057887495	5.676	1
2976	LINGO1	ENST00000355300	p.V110M	c.328	0.090086396	3.611	1
2976	LINGO1	ENST00000355300	p.P135L	c.404	0.101402159	0	1
2977	CD180	ENST00000256447	p.P578T	c.1732	0.004250947	0	1
2977	CD180	ENST00000256447	p.L618P	c.1853	0.004250947	7.878	1
2978	BMPR2	ENST00000374580	p.E415Q	c.1243	0.004703662	7.732	1
2978	BMPR2	ENST00000374580	p.S301A	c.901	0.004703662	0	1
2979	SEC24C	ENST00000345254	p.V859I	c.2575	0.018123432	0	1
2979	SEC24C	ENST00000345254	p.R928H	c.2783	0.018123432	5.786	1
2980	EHMT1	ENST00000460843	p.A1126T	c.3376	0.0217476	0	1
2980	EHMT1	ENST00000460843	p.T1150F	c.3448_3449	0.0217476	5.523	1
2981	SH3GL2	ENST00000380607	p.D291N	c.871	0.003985565	0	1
2981	SH3GL2	ENST00000380607	p.I316T	c.947	0.003985565	7.971	1
2982	C3	ENST00000245907	p.R343H	c.1028	0.183413008	8.272	1
2982	C3	ENST00000245907	p.E237K	c.709	0.20552129	5.663	1
2982	C3	ENST00000245907	p.V326M	c.976	1.022971405	0	2
2983	P2RY11	ENST00000321826	p.V117L	c.349	0.056016669	4.158	1
2983	P2RY11	ENST00000321826	p.P217L	c.650	0.056016669	0	1
2984	RAB7A	ENST00000265062	p.F96C	c.287	0.105838824	0	1
2984	RAB7A	ENST00000265062	p.A135S	c.403	0.017268929	5.98	1
2984	RAB7A	ENST00000265062	p.R138Q	c.413	0.09142152	3.474	1
2985	IFNB1	ENST00000380232	p.F36S	c.107	0.013519369	6.332	1
2985	IFNB1	ENST00000380232	p.Q37K	c.109	0.090232939	3.488	1
2985	IFNB1	ENST00000380232	p.N111K	c.333	0.101539645	0	1
2986	PIK3C3	ENST00000262039	p.R810Q	c.2429	0.249060694	0	1
2986	PIK3C3	ENST00000262039	p.R847C	c.2539	0.185742581	2.535	1
2986	PIK3C3	ENST00000262039	p.S851L	c.2552	0.089723937	3.708	1
2987	C6	ENST00000263413	p.E394K	c.1180	0.030616365	0	1
2987	C6	ENST00000263413	p.T252R	c.755	0.012073602	6.372	1
2987	C6	ENST00000263413	p.F254L	c.762	0.018542762	5.753	1
2988	ACAD11	ENST00000264990	p.A470T	c.1408	0.025005061	5.617	1
2988	ACAD11	ENST00000264990	p.C503S	c.1508	0.025990199	5.916	1
2988	ACAD11	ENST00000264990	p.R627H	c.1880	0.036937555	0	1
2990	TRNT1	ENST00000251607	p.D338Y	c.1012	0.003431369	8.187	1
2990	TRNT1	ENST00000251607	p.C373S	c.1118	0.003431369	0	1
2991	MLST8	ENST00000564088	p.R25G	c.73	0.221900514	0	1
2991	MLST8	ENST00000564088	p.H311Y	c.931	0.113968082	3.297	1
2991	MLST8	ENST00000564088	p.Q312R	c.935	0.1323828	3.057	1
2992	GALNT2	ENST00000366672	p.D494E	c.1482	0.176174446	4.223	1

2992 GALNT2	ENST00000366672	p.A266P	c.796	2.053548872	0	1
2992 GALNT2	ENST00000366672	p.A266T	c.796	2.053548872	0	1
2992 GALNT2	ENST00000366672	p.A266V	c.797	2.053548872	0	1
2993 RAP1B	ENST00000250559	p.E54G	c.161	0.058638825	4.092	1
2993 RAP1B	ENST00000250559	p.E54G	c.161	0.065019833	0	1
2993 RAP1B	ENST00000250559	p.R2C	c.4	0.006381008	7.292	1
2994 CA1	ENST00000523022	p.T56A	c.166	0.039797612	5.386	1
2994 CA1	ENST00000523022	p.F71V	c.211	0.088926904	3.542	1
2994 CA1	ENST00000523022	p.Q159K	c.475	0.026751226	6.393	1
2994 CA1	ENST00000523022	p.F180C	c.539	0.121665407	0	1
2995 RPS7	ENST00000304921	p.E138K	c.412	1.003540086	0	2
2995 RPS7	ENST00000304921	p.P190Q	c.569	0.007080171	8.142	1
2996 PEX19	ENST00000368072	p.K217Q	c.649	1.005444442	0	1
2996 PEX19	ENST00000368072	p.K217N	c.651	1.005444442	0	1
2996 PEX19	ENST00000368072	p.P264H	c.791	0.010888885	7.521	1
2997 EPO	ENST00000252723	p.T54M	c.161	0.381103573	2.477	1
2997 EPO	ENST00000252723	p.A57T	c.169	0.265369596	3.038	1
2997 EPO	ENST00000252723	p.R166H	c.497	1.301368056	0	2
2998 NAT2	ENST00000286479	p.R165K	c.494	0.019276675	5.697	1
2998 NAT2	ENST00000286479	p.F244L	c.730	0.019276675	0	1
2999 FECH	ENST00000382873	p.P381Q	c.1142	0.008740915	6.838	1
2999 FECH	ENST00000382873	p.A388T	c.1162	0.0261327	5.258	1
2999 FECH	ENST00000382873	p.G148S	c.442	0.034873615	0	1
3000 HTR1B	ENST00000369947	p.L335I	c.1003	0.043164827	0	1
3000 HTR1B	ENST00000369947	p.T209M	c.626	0.043164827	4.534	1
3001 SEMA7A	ENST00000261918	p.Q466H	c.1398	0.10083022	3.31	1
3001 SEMA7A	ENST00000261918	p.P74Q	c.221	0.113566064	0	1
3001 SEMA7A	ENST00000261918	p.P174L	c.521	0.008753041	6.836	1
3001 SEMA7A	ENST00000261918	p.D175G	c.524	0.003982803	7.972	1
3002 HIST1H4C	ENST00000377803	p.R68P	c.203	1.516452049	2.72	2
3002 HIST1H4F	ENST00000377745	p.D69Y	c.205	0.705826522	2.312	1
3002 HIST4H4	ENST00000539745	p.D69G	c.206	0.705826522	2.312	1
3002 HIST1H4F	ENST00000377745	p.R93C	c.277	1.746865203	0	2
3002 HIST1H4H	ENST00000289352	p.R93Q	c.278	0.78741954	4.624	1
3003 RRM1	ENST00000300738	p.V473I	c.1417	0.011226095	6.477	1
3003 RRM1	ENST00000300738	p.G504E	c.1511	0.011226095	0	1
3004 EGFR	ENST00000275493	p.D807H	c.2419	0.187811346	4.588	1
3004 EGFR	ENST00000275493	p.S811C	c.2432	0.184832466	6.115	1
3004 EGFR	ENST00000275493	p.I981F	c.2941	0.242075781	8.037	1
3004 EGFR	ENST00000275493	p.G983R	c.2947	1.059814223	0	2
3005 ITGAX	ENST00000562522	p.A87T	c.259	0.010089511	6.631	1
3005 ITGAX	ENST00000562522	p.G109S	c.325	0.010089511	0	1
3006 SYMPK	ENST00000245934	p.L194M	c.580	0.01690976	5.886	1
3006 SYMPK	ENST00000245934	p.F270L	c.808	0.01690976	0	1
3007 CTH	ENST00000370938	p.E339D	c.1017	0.006726166	7.216	1
3007 CTH	ENST00000370938	p.R62L	c.185	0.006726166	0	1
3008 HBP1	ENST00000222574	p.S270C	c.808	0.01048158	0	1
3008 HBP1	ENST00000222574	p.E295D	c.885	0.01048158	6.576	1
3009 ATXN3L	ENST00000380622	p.P140T	c.418	0.071893243	3.798	1

3009	ATXN3L	ENST00000380622	p.E173D	c.519	0.071893243	0	1
3010	HGF	ENST00000222390	p.G216W	c.646	1.040030289	0	1
3010	HGF	ENST00000222390	p.G216E	c.647	1.040030289	0	1
3010	HGF	ENST00000222390	p.P263S	c.787	0.031598503	5.984	1
3010	HGF	ENST00000222390	p.R268K	c.803	0.048462075	5.367	1
3011	MAPK8	ENST00000374189	p.D112Y	c.334	0.013583509	0	1
3011	MAPK8	ENST00000374189	p.I32V	c.94	0.013583509	6.202	1
3012	GSTK1	ENST00000479303	p.P5L	c.14	2.035881886	0	2
3012	GSTK1	ENST00000479303	p.P5Q	c.14	2.035881886	0	1
3012	GSTK1	ENST00000479303	p.P56L	c.166_167	0.112676162	8.319	1
3012	GSTK1	ENST00000479303	p.L72F	c.214	0.046963687	9.656	1
3012	GSTK1	ENST00000479303	p.H264Y	c.790	0.233242361	4.988	1
3013	RNASE2	ENST00000304625	p.W37R	c.109	0.022359008	5.483	1
3013	RNASE2	ENST00000304625	p.N44I	c.131	0.010836179	6.528	1
3013	RNASE2	ENST00000304625	p.V155F	c.463	0.044681026	0	1
3013	RNASE2	ENST00000304625	p.K28N	c.84	0.011485839	6.444	1
3014	PGK1	ENST00000373316	p.D98N	c.292	0.008280881	0	1
3014	PGK1	ENST00000373316	p.L122I	c.364	0.008280881	6.916	1
3015	RNGTT	ENST00000369485	p.R470C	c.1408	0.07427101	0	1
3015	RNGTT	ENST00000369485	p.Y510F	c.1529	0.006973023	7.164	1
3015	RNGTT	ENST00000369485	p.K513N	c.1539	0.055398856	4.174	1
3015	RNGTT	ENST00000369485	p.N537D	c.1609	0.011899131	6.393	1
3016	SMAP2	ENST00000372718	p.Q72K	c.214	0.025675302	6.292	1
3016	SMAP2	ENST00000372718	p.A95T	c.283	0.010836179	6.528	1
3016	SMAP2	ENST00000372718	p.Y96C	c.287	0.048562954	4.364	1
3016	SMAP2	ENST00000372718	p.R126Q	c.377	0.072161149	0	1
3017	DNM3	ENST00000355305	p.N178T	c.533	0.001784827	0	1
3017	DNM3	ENST00000355305	p.E212K	c.634	0.001784827	9.13	1
3018	ALK	ENST00000389048	p.F1174L	c.3520	0.102592701	0	1
3018	ALK	ENST00000389048	p.FGM1271in_frame_dell	c.3818_3813	0.102592701	3.285	1
3019	PPIL3	ENST00000409449	p.S103A	c.307	0.076627179	3.706	1
3020	PARN	ENST00000437198	p.S399Y	c.1196	0.004913613	7.669	1
3020	PARN	ENST00000437198	p.K75R	c.224	0.004913613	0	1
3021	APPL1	ENST00000288266	p.A143V	c.428	0.160406088	0	1
3021	APPL1	ENST00000288266	p.D166H	c.496	0.082089112	3.724	1
3021	APPL1	ENST00000288266	p.V167G	c.500	0.091141064	3.561	1
3022	EPRS	ENST00000366923	p.A1202T	c.3604	0.063313515	6.007	1
3022	EPRS	ENST00000366923	p.I1408T	c.4223	2.015549371	0	2
3022	EPRS	ENST00000366923	p.I1408M	c.4224	2.015549371	0	1
3023	NRP2	ENST00000360409	p.A295S	c.882_883	0.128712677	0	1
3023	NRP2	ENST00000360409	p.W318C	c.954	0.118328273	3.096	1
3023	NRP2	ENST00000360409	p.P320L	c.959	0.013135076	6.41	1
3024	MAPK3	ENST00000263025	p.E362K	c.1084	0.005493723	7.508	1
3024	MAPK3	ENST00000263025	p.L269P	c.806	0.048405079	4.511	1
3024	MAPK3	ENST00000263025	p.N314I	c.941	0.049352215	0	1
3025	GART	ENST00000381831	p.P143T	c.427	0.077942604	5.886	1
3025	GART	ENST00000381831	p.E190D	c.570	0.06101009	9.945	1
3025	GART	ENST00000381831	p.L193F	c.577	0.079265462	0	1
3025	GART	ENST00000381831	p.M278I	c.834	0.062378456	4.027	1

3026	HPGDS	ENST00000295256	p.A78V	c.233	0.017193416	5.862	1
3026	HPGDS	ENST00000295256	p.G79E	c.236	0.010103507	6.629	1
3026	HPGDS	ENST00000295256	p.S145F	c.434	0.027296923	0	1
3027	AURKA	ENST00000395909	p.E211D	c.633	0.038543412	5.159	1
3027	AURKA	ENST00000395909	p.G216R	c.646	0.022020637	5.505	1
3027	AURKA	ENST00000395909	p.G265E	c.794	0.050009564	0	1
3028	LILRB2	ENST00000391749	p.E239K	c.715	0.017676788	5.822	1
3028	LILRB2	ENST00000391749	p.S287T	c.860	0.017676788	0	1
3029	GSK3B	ENST00000316626	p.L334M	c.1000	0.007583082	0	1
3029	GSK3B	ENST00000316626	p.E249K	c.745	0.007583082	7.043	1
3030	ECE1	ENST00000374893	p.R400W	c.1198	0.012797448	6.288	1
3030	ECE1	ENST00000374893	p.E311Q	c.931	0.012797448	0	1
3031	NOTCH1	ENST00000277541	p.P422S	c.1264	0.168948295	0	1
3031	NOTCH1	ENST00000277541	p.R448L	c.1343	0.149524449	2.774	1
3031	NOTCH1	ENST00000277541	p.C449Y	c.1346	0.040971118	5.458	1
3032	PITPNA	ENST00000313486	p.V136M	c.406	0.006679705	7.226	1
3032	PITPNA	ENST00000313486	p.G174D	c.521	0.006679705	0	1
3033	NFASC	ENST00000367172	p.G155S	c.463	0.124701713	3.026	1
3033	NFASC	ENST00000367172	p.R242T	c.725	0.138522957	0	1
3033	NFASC	ENST00000367172	p.K321R	c.962	0.017689771	5.988	1
3034	C5	ENST00000223642	p.E1339Q	c.4015	0.026552656	5.235	1
3034	C5	ENST00000223642	p.K189N	c.567	0.026552656	0	1
3035	PTP4A3	ENST00000521578	p.P7L	c.20	0.141022767	0	1
3035	PTP4A3	ENST00000521578	p.A106E	c.317	0.141022767	2.826	1
3036	ITSN1	ENST00000381285	p.L1433M	c.4297	0.030883927	6.017	1
3036	ITSN1	ENST00000381285	p.P1460S	c.4378	1.031088639	0	1
3036	ITSN1	ENST00000381285	p.P1460L	c.4379	1.031088639	0	1
3036	ITSN1	ENST00000381285	p.D1485N	c.4453	0.031293352	5.998	1
3037	ARHGAP25	ENST00000409202	p.N103D	c.307	0.168520966	0	1
3037	ARHGAP25	ENST00000409202	p.G125R	c.373	0.168520966	2.569	1
3038	MST1R	ENST00000296474	p.R470C	c.1408	1.081503171	0	2
3038	MST1R	ENST00000296474	p.V498M	c.1492	0.163006342	3.617	1
3039	RAD1	ENST00000382038	p.L158M	c.472	0.103758629	0	1
3039	RAD1	ENST00000382038	p.D208G	c.623	0.008367428	6.901	1
3039	RAD1	ENST00000382038	p.E211K	c.631	0.095391201	3.39	1
3040	COCH	ENST00000216361	p.R91Q	c.272	0.440870344	0	1
3040	COCH	ENST00000216361	p.V123L	c.367	0.213902291	2.573	1
3040	COCH	ENST00000216361	p.T124A	c.370	0.318663886	1.874	1
3041	ADRBK1	ENST00000308595	p.K465N	c.1395	0.049240868	0	1
3041	ADRBK1	ENST00000308595	p.H330Q	c.990	0.049240868	4.344	1
3042	HGD	ENST00000283871	p.V157L	c.469	0.019750048	5.662	1
3042	HGD	ENST00000283871	p.L201V	c.601	0.019750048	0	1
3043	GABBR1	ENST00000377034	p.G364R	c.1090	1.061044283	0	1
3043	GABBR1	ENST00000377034	p.G364E	c.1091	1.061044283	0	1
3043	GABBR1	ENST00000377034	p.A53T	c.157	0.122088566	4.034	1
3044	CUL3	ENST00000264414	p.L356F	c.1066	0.009618316	0	1
3044	CUL3	ENST00000264414	p.L296I	c.886	0.009618316	6.7	1
3045	DAO	ENST00000228476	p.L56F	c.166	0.083910781	0	1
3045	DAO	ENST00000228476	p.P105L	c.314	0.083910781	3.575	1

3046	IKBBB	ENST00000520810	p.F486L	c.1458	0.038821509	4.687	1
3046	IKBBB	ENST00000520810	p.E518K	c.1552	0.038821509	0	1
3047	PRDM12	ENST00000253008	p.E170K	c.508	0.00927781	6.752	1
3047	PRDM12	ENST00000253008	p.G203E	c.608	0.00927781	0	1
3048	IDE	ENST00000265986	p.N788K	c.2364	0.05437171	0	1
3048	IDE	ENST00000265986	p.S188L	c.563	0.05437171	4.201	1
3049	STS	ENST00000217961	p.D36N	c.106	0.08565368	0	1
3049	STS	ENST00000217961	p.G359R	c.1075	0.031867138	5.657	1
3049	STS	ENST00000217961	p.V289M	c.865	0.077883587	3.925	1
3050	DNMT3A	ENST00000321117	p.F336V	c.1006	0.022815987	0	1
3050	DNMT3A	ENST00000321117	p.L300P	c.899	0.01165665	6.894	1
3050	DNMT3A	ENST00000321117	p.S312F	c.935	0.014407861	6.117	1
3051	TOP2B	ENST00000264331	p.A766T	c.2296	0.00934882	0	1
3051	TOP2B	ENST00000264331	p.S823N	c.2468	0.00934882	6.741	1
3052	EPHB2	ENST00000400191	p.D416Y	c.1246	0.009342342	6.742	1
3052	EPHB2	ENST00000400191	p.D460N	c.1378	0.009342342	0	1
3053	DAPK1	ENST00000358077	p.A41S	c.121	0.012473412	0	1
3053	DAPK1	ENST00000358077	p.G16R	c.46	0.012473412	6.325	1
3054	NDEL1	ENST00000299734	p.E109D	c.327	0.015788304	0	1
3054	NDEL1	ENST00000299734	p.R149Q	c.446	0.015788304	5.985	1
3055	MTERF	ENST00000351870	p.L225F	c.675	0.017836792	0	1
3055	MTERF	ENST00000351870	p.R260W	c.778	0.017836792	5.809	1
3056	MME	ENST00000360490	p.D366Y	c.1096	0.0524957	0	1
3056	MME	ENST00000360490	p.E272K	c.814	0.024214248	5.368	1
3056	MME	ENST00000360490	p.E282K	c.844	0.028281452	5.144	1
3057	EED	ENST00000351625	p.H92Y	c.274	0.051688961	4.274	1
3057	EED	ENST00000351625	p.G117V	c.350	0.051688961	0	1
3058	NAALAD2	ENST00000534061	p.P472L	c.1415	0.095545429	4.423	1
3058	NAALAD2	ENST00000534061	p.L483M	c.1447	0.101478158	4.334	1
3058	NAALAD2	ENST00000534061	p.S565F	c.1694	1.096200366	0	1
3058	NAALAD2	ENST00000534061	p.S565Y	c.1694	1.096200366	0	1
3059	NQO2	ENST00000380430	p.G160E	c.479	0.04413295	4.502	1
3059	NQO2	ENST00000380430	p.Q213K	c.637	0.04413295	0	1
3060	ALDH18A1	ENST00000371224	p.A370T	c.1108	0.004638905	7.752	1
3060	ALDH18A1	ENST00000371224	p.V529L	c.1585	0.004638905	0	1
3061	VAV1	ENST00000602142	p.E378K	c.1132	0.008912217	6.81	1
3061	VAV1	ENST00000602142	p.R63H	c.188	0.008912217	0	1
3062	RBFOX1	ENST00000547372	p.P168S	c.502	0.406971593	2.297	1
3062	RBFOX1	ENST00000547372	p.R227C	c.679	1.203485796	0	1
3062	RBFOX1	ENST00000547372	p.R227L	c.680	1.203485796	0	1
3063	PLXNC1	ENST00000258526	p.K1234E	c.3700	1.016933218	0	1
3063	PLXNC1	ENST00000258526	p.K1234N	c.3702	1.016933218	0	1
3063	PLXNC1	ENST00000258526	p.E1268K	c.3802	0.033866436	5.884	1
3064	RABGEF1	ENST00000437078	p.E148K	c.442	0.041984482	5.574	1
3064	KCTD7	ENST00000380828	p.E174K	c.520	0.041984482	5.574	1
3064	RABGEF1	ENST00000437078	p.E194Q	c.580	0.041984482	0	1
3065	CSF1	ENST00000369802	p.L88M	c.262	0.079992026	3.644	1
3065	CSF1	ENST00000369802	p.V135I	c.403	0.079992026	0	1
3066	CHEK1	ENST00000427383	p.D146Y	c.436	0.07154526	3.805	1

3066 CHEK1	ENST00000427383	p.M183L	c.547	0.07154526	0	1
3067 PDE9A	ENST00000291539	p.T362M	c.1085	0.07557223	3.726	1
3067 PDE9A	ENST00000291539	p.E395K	c.1183	0.07557223	0	1
3068 LILRB2	ENST00000391749	p.G159in_frame_del	c.478_476	0.019681718	0	1
3068 LILRB2	ENST00000391749	p.S193L	c.578	0.019681718	5.667	1
3069 PAK7	ENST00000378423	p.I631L	c.1891	0.024013675	5.38	1
3069 PAK7	ENST00000378423	p.L677I	c.2029	0.024013675	0	1
3070 CHN1	ENST00000409900	p.R395W	c.1183	1.080604266	0	1
3070 CHN1	ENST00000409900	p.R395P	c.1184	1.080604266	0	1
3070 CHN1	ENST00000409900	p.R281W	c.841	0.161208531	3.633	1
3071 CFI	ENST00000394635	p.H118N	c.352	0.047398986	0	1
3071 CFI	ENST00000394635	p.S175F	c.524	0.047398986	4.399	1
3072 CDKL1	ENST00000395834	p.R51W	c.151	0.003664927	0	1
3072 CDKL1	ENST00000395834	p.H125Y	c.373	0.003664927	8.092	1
3073 FGFR2	ENST00000457416	p.T174N	c.521	0.097665985	0	1
3073 FGFR2	ENST00000457416	p.S220C	c.658	0.097665985	3.356	1
3075 RPS5	ENST00000598495	p.T147A	c.439	0.024327288	5.445	1
3075 RPS5	ENST00000598495	p.A159V	c.476	0.061118111	4.065	1
3075 RPS5	ENST00000598495	p.N224S	c.671	0.082702342	0	1
3077 CXADR	ENST00000284878	p.D180N	c.538	0.019654453	5.669	1
3077 CXADR	ENST00000284878	p.T209P	c.625	0.019654453	0	1
3078 CYP2C9	ENST00000260682	p.P363S	c.1087	0.072896836	0	1
3078 CYP2C9	ENST00000260682	p.I389T	c.1166	0.072896836	3.778	1
3079 ERBB3	ENST00000267101	p.F94L	c.282	0.006670451	0	1
3079 ERBB3	ENST00000267101	p.S128N	c.383	0.006670451	7.228	1
3080 MEP1B	ENST00000269202	p.D178N	c.532	0.010716666	6.544	1
3080 MEP1B	ENST00000269202	p.F188C	c.563	0.060622619	4.044	1
3080 MEP1B	ENST00000269202	p.T223I	c.668	0.071339286	0	1
3081 AOC1	ENST00000416793	p.T169A	c.505	0.01510322	0	1
3081 AOC1	ENST00000416793	p.T215N	c.644	0.01510322	6.049	1
3082 CAND1	ENST00000545606	p.K679N	c.2037	0.072493728	0	1
3082 CAND1	ENST00000545606	p.T718I	c.2153	0.072493728	3.786	1
3083 KDM1B	ENST00000388870	p.S558L	c.1673	0.008537326	6.872	1
3083 KDM1B	ENST00000388870	p.Y780H	c.2338	0.008537326	0	1
3084 CD86	ENST00000330540	p.E34D	c.102	0.014761673	7.082	1
3084 CD86	ENST00000330540	p.R85H	c.254	1.007380836	0	2
3085 TGM2	ENST00000361475	p.R601H	c.1802	0.222296798	2.326	1
3085 TGM2	ENST00000361475	p.G628C	c.1882	0.137485993	3.125	1
3085 TGM2	ENST00000361475	p.P656S	c.1966	0.314061815	0	1
3086 PPIL1	ENST00000373699	p.N102S	c.305	0.277584708	0	1
3086 PPIL1	ENST00000373699	p.T127S	c.379	0.277584708	1.849	1
3087 FLNB	ENST00000490882	p.W14R	c.40	0.035889559	0	1
3087 FLNB	ENST00000490882	p.2139in_frame_insS	c.6409_6410	0.018249491	5.776	1
3087 FLNB	ENST00000490882	p.E227G	c.680	0.017640069	5.825	1
3088 FKBP14	ENST00000222803	p.H39N	c.115	0.009698652	6.688	1
3088 FKBP14	ENST00000222803	p.R40H	c.119	0.097013659	3.501	1
3088 FKBP14	ENST00000222803	p.L47F	c.141	0.107031862	3.346	1
3088 FKBP14	ENST00000222803	p.I134S	c.401	0.196371061	0	1
3089 PLEKHM2	ENST00000375799	p.L778V	c.2332	0.004108991	0	1

3089	PLEKHM2	ENST00000375799	p.S857G	c.2569	0.004108991	7.927	1
3090	CTDSP2	ENST00000398073	p.V94L	c.280	1.0160087	0	1
3090	CTDSP2	ENST00000398073	p.V94M	c.280	1.0160087	0	1
3090	CTDSP2	ENST00000398073	p.R184Q	c.551	0.032017401	5.965	1
3091	PGLYRP3	ENST00000290722	p.A186S	c.556	0.117684808	0	1
3091	PGLYRP3	ENST00000290722	p.Q221K	c.661	0.117684808	3.087	1
3092	CASP2	ENST00000310447	p.R361C	c.1081	0.024460018	5.883	1
3092	CASP2	ENST00000310447	p.A303T	c.907	0.041963289	0	1
3092	CASP2	ENST00000310447	p.G328V	c.983	0.021307293	6.18	1
3092	CASP2	ENST00000310447	p.D330E	c.990	0.011226095	6.477	1
3093	SDSL	ENST00000403593	p.A75T	c.223	0.00983404	6.668	1
3093	SDSL	ENST00000403593	p.D267E	c.801	0.013517761	6.209	1
3093	SDSL	ENST00000403593	p.N312K	c.936	0.023351801	0	1
3094	PNLIP	ENST00000369221	p.V359A	c.1076	0.02071759	5.593	1
3094	PNLIP	ENST00000369221	p.E387K	c.1159	0.02071759	0	1
3095	TXNL4A	ENST00000269601	p.E74V	c.221	0.020418207	0	1
3095	TXNL4A	ENST00000269601	p.N100in_frame_del	c.302_300	0.020418207	5.614	1
3096	LIFR	ENST00000263409	p.L451P	c.1352	0.016268935	9.425	1
3096	LIFR	ENST00000263409	p.E469K	c.1405	1.207071849	0	2
3096	LIFR	ENST00000263409	p.R508Q	c.1523	0.241680517	3.199	1
3096	LIFR	ENST00000263409	p.R510C	c.1528	1.101989092	4.37	1
3096	LIFR	ENST00000263409	p.R510H	c.1529	1.101989092	4.37	1
3097	SERPING1	ENST00000403558	p.C471R	c.1411	0.09386295	3.608	1
3097	SERPING1	ENST00000403558	p.G472E	c.1415	0.206402452	2.791	1
3097	SERPING1	ENST00000403558	p.V161I	c.481	0.057300821	7.111	1
3097	SERPING1	ENST00000403558	p.G218E	c.653	0.233732995	0	1
3098	TOP3A	ENST00000321105	p.I369V	c.1105	0.011791732	6.585	1
3098	TOP3A	ENST00000321105	p.R405L	c.1214	0.142452099	0	1
3098	TOP3A	ENST00000321105	p.R323W	c.967	0.137876423	2.921	1
3099	C8B	ENST00000371237	p.L138F	c.412	2.107270372	0	1
3099	C8B	ENST00000371237	p.L138R	c.413	2.107270372	0	2
3099	C8B	ENST00000371237	p.G198D	c.593	0.271359223	3.475	1
3099	C8B	ENST00000371237	p.G199R	c.595	0.058796525	5.85	1
3100	ITGAX	ENST00000562522	p.D682N	c.2044	0.034735858	8.306	1
3100	ITGAX	ENST00000562522	p.R685C	c.2053	3.15041086	0	1
3100	ITGAX	ENST00000562522	p.R685H	c.2054	3.15041086	0	3
3100	ITGAX	ENST00000562522	p.T728I	c.2183	0.631295637	2.806	1
3100	ITGAX	ENST00000562522	p.E903D	c.2709	0.296656536	7.875	1
3101	IPO13	ENST00000372343	p.V548M	c.1642	0.030691862	5.026	1
3101	IPO13	ENST00000372343	p.A593V	c.1778	0.04151303	0	1
3101	IPO13	ENST00000372343	p.L647V	c.1939	0.010821168	6.53	1
3102	MAN1B1	ENST00000535144	p.W410L	c.1229	0.031576608	0	1
3103	ASH1L	ENST00000368346	p.R2160K	c.6479	0.010972226	0	1
3103	ASH1L	ENST00000368346	p.R2281Q	c.6842	0.010972226	6.51	1
3104	YARS2	ENST00000324868	p.T75S	c.224	0.007494251	7.06	1
3104	YARS2	ENST00000324868	p.L101W	c.302	0.007494251	0	1
3105	MORF4L1	ENST00000331268	p.E194K	c.580	0.035800457	5.008	1
3105	MORF4L1	ENST00000331268	p.M267V	c.799	0.156708175	2.718	1
3105	MORF4L1	ENST00000331268	p.R308Q	c.923	0.183062103	0	1

3106 ADCY10	ENST00000367851	p.A148V	c.443	0.026460791	0	1
3106 ADCY10	ENST00000367851	p.V172M	c.514	0.026460791	5.24	1
3107 DVL2	ENST00000005340	p.P359H	c.1076	0.037629293	0	1
3107 DVL2	ENST00000005340	p.E312G	c.935	0.037629293	4.732	1
3108 ATXN3	ENST00000545170	p.D41H	c.121	0.066109435	3.919	1
3108 ATXN3	ENST00000545170	p.S76F	c.227	0.066109435	0	1
3109 IL7	ENST00000263851	p.S44N	c.131	0.049043066	4.452	1
3109 IL7	ENST00000263851	p.M52I	c.156	0.076757644	3.768	1
3109 IL7	ENST00000263851	p.D101H	c.301	0.119093168	0	1
3110 BIN2	ENST00000267012	p.R153Q	c.458	0.009985151	6.646	1
3110 BIN2	ENST00000267012	p.A180S	c.538	0.009985151	0	1
3111 ASMT	ENST00000381241	p.G42R	c.124	0.031012637	5.011	1
3111 ASMT	ENST00000381241	p.Y84C	c.251	0.031012637	0	1
3112 CAPN2	ENST00000295006	p.S113F	c.338	0.013583509	0	1
3112 CAPN2	ENST00000295006	p.L238F	c.712	0.013583509	6.202	1
3113 PTPRM	ENST00000400060	p.N197D	c.589	0.069843355	0	1
3113 PTPRM	ENST00000400060	p.E280D	c.840	0.023676263	5.467	1
3113 PTPRM	ENST00000400060	p.P281Q	c.842	0.056109999	4.404	1
3114 DMC1	ENST00000216024	p.F85L	c.255	1.060162153	0	2
3114 DMC1	ENST00000216024	p.H211Y	c.631	0.120324305	4.055	1
3115 EGFR	ENST00000275493	p.P373Q	c.1118	0.012015163	6.379	1
3115 EGFR	ENST00000275493	p.V441I	c.1321	0.076629584	0	1
3115 EGFR	ENST00000275493	p.G465R	c.1393	0.064614421	3.952	1
3116 CTSL	ENST00000340342	p.R153W	c.457	0.501736188	2.21	1
3116 CTSL	ENST00000340342	p.V242L	c.724	1.240635572	0	1
3116 CTSL	ENST00000340342	p.V242M	c.724	1.240635572	0	1
3116 CTSL	ENST00000340342	p.R319I	c.956	0.145006298	5.351	1
3117 MSL3	ENST00000312196	p.L486V	c.1456	0.015810206	0	1
3117 MSL3	ENST00000312196	p.K249N	c.747	0.015810206	5.983	1
3118 PARP14	ENST00000474629	p.P1606H	c.4817	0.020683126	5.669	1
3118 PARP14	ENST00000474629	p.E1628Q	c.4882	0.059071171	8.411	1
3118 PARP14	ENST00000474629	p.L1656I	c.4966	0.167861704	0	1
3118 PARP14	ENST00000474629	p.V1692F	c.5074	0.11427264	4.256	1
3118 PARP14	ENST00000474629	p.N1698D	c.5092	0.088639469	4.401	1
3118 PARP14	ENST00000474629	p.V1717I	c.5149	0.048229921	4.511	1
3118 PARP14	ENST00000474629	p.Q1790E	c.5368	0.038492486	9.167	1
3119 PDE3A	ENST00000359062	p.D837N	c.2509	1.045720976	0	2
3119 PDE3A	ENST00000359062	p.D950A	c.2849	0.091441951	4.451	1
3120 NMT1	ENST00000592782	p.E178Q	c.532	0.016584738	5.914	1
3120 NMT1	ENST00000592782	p.R189Q	c.566	0.008955564	6.803	1
3120 NMT1	ENST00000592782	p.R255H	c.764	0.025540302	0	1
3121 ASPH	ENST00000379454	p.P696S	c.2086	0.078128894	0	1
3121 ASPH	ENST00000379454	p.R735W	c.2203	0.078128894	3.678	1
3122 ALB	ENST00000295897	p.R34W	c.100	0.264998946	0	1
3122 ALB	ENST00000295897	p.Y174F	c.521	0.185847874	7.617	1
3122 ALB	ENST00000295897	p.C277W	c.831	0.132527831	5.774	1
3122 ALB	ENST00000295897	p.D279Y	c.835	0.248580957	2.227	1
3122 ALB	ENST00000295897	p.D283E	c.849	0.048909841	5.157	1
3123 IL1R1	ENST00000410023	p.K162R	c.485	0.060162153	0	1

3123	IL1R1	ENST00000410023	p.G192W	c.574	0.060162153	4.055	1
3124	VCP	ENST00000358901	p.I353N	c.1058	0.101742898	0	1
3124	VCP	ENST00000358901	p.A310T	c.928	0.101742898	3.297	1
3125	CRMP1	ENST00000324989	p.S228C	c.683	0.009220112	6.761	1
3125	CRMP1	ENST00000324989	p.V262I	c.784	0.009220112	0	1
3126	FNTA	ENST00000302279	p.D110H	c.328	0.019665449	5.809	1
3126	FNTA	ENST00000302279	p.R112I	c.335	0.104350271	3.286	1
3126	FNTA	ENST00000302279	p.L140V	c.418	0.120358406	0	1
3127	TTN	ENST00000589042	p.P103S	c.307	1.011686607	0	2
3127	TTN	ENST00000589042	p.P131S	c.391_390	0.068246481	6.419	1
3128	VRK1	ENST00000216639	p.Q88L	c.263	0.02046071	5.611	1
3128	VRK1	ENST00000216639	p.D273Y	c.817	0.010642641	6.554	1
3128	VRK1	ENST00000216639	p.A33T	c.97	0.031103351	0	1
3129	MYO5C	ENST00000261839	p.E1570K	c.4708	0.065108964	0	1
3129	MYO5C	ENST00000261839	p.P1717S	c.5149	0.065108964	3.941	1
3130	ARHGAP20	ENST00000260283	p.A506P	c.1516	0.080102995	3.642	1
3130	ARHGAP20	ENST00000260283	p.E545D	c.1635	0.080102995	0	1
3131	POLI	ENST00000579534	p.S337L	c.1010	0.059862715	0	1
3131	POLI	ENST00000579534	p.R372H	c.1115	0.043317928	6.459	1
3131	POLI	ENST00000579534	p.I300S	c.899	0.048495678	4.366	1
3132	NCAM2	ENST00000400546	p.W413L	c.1238	1.217381259	0	1
3132	NCAM2	ENST00000400546	p.W413C	c.1239	1.217381259	0	1
3132	NCAM2	ENST00000400546	p.A493D	c.1478	0.21767844	3.28	1
3132	NCAM2	ENST00000400546	p.G574E	c.1721	0.212147948	3.319	1
3132	NCAM2	ENST00000400546	p.G576R	c.1726	0.031349127	6.135	1
3133	CD207	ENST00000410009	p.F206L	c.618	0.014538276	0	1
3133	CD207	ENST00000410009	p.S228L	c.683	0.014538276	6.104	1
3134	TPBG	ENST00000369750	p.G136C	c.406	0.052775055	0	1
3134	TPBG	ENST00000369750	p.A161T	c.481	0.052775055	4.244	1
3135	CD207	ENST00000410009	p.Y251C	c.752	0.026223426	5.253	1
3135	CD207	ENST00000410009	p.K299N	c.897	0.026223426	0	1
3136	PDK3	ENST00000441463	p.S87I	c.260	0.013285534	6.234	1
3136	PDK3	ENST00000441463	p.R116I	c.347	0.013285534	0	1
3137	AZGP1	ENST00000292401	p.G113R	c.337	1.021701968	0	2
3137	AZGP1	ENST00000292401	p.A133P	c.397	0.05933627	9.739	1
3137	AZGP1	ENST00000292401	p.W154S	c.461	0.098059311	5.606	1
3138	EPHX2	ENST00000521400	p.V491F	c.1471	0.009800017	0	1
3138	EPHX2	ENST00000521400	p.P512T	c.1534	0.009800017	6.673	1
3139	SERPINB3	ENST00000283752	p.T112M	c.335	0.005459558	7.517	1
3139	SERPINB3	ENST00000283752	p.D297N	c.889	0.005459558	0	1
3140	SERPINA12	ENST00000556881	p.S93N	c.278	0.007016659	0	1
3140	SERPINA12	ENST00000556881	p.E333Q	c.997	0.007016659	7.155	1
3142	UBE3A	ENST00000397954	p.R763W	c.2287	0.037085525	4.753	1
3142	UBE3A	ENST00000397954	p.T810M	c.2429	0.021167578	5.562	1
3142	UBE3A	ENST00000397954	p.G831C	c.2491	0.058253103	0	1
3143	HDAC8	ENST00000373573	p.E23K	c.67	0.013285534	6.234	1
3143	HDAC8	ENST00000373573	p.G324R	c.970	0.013285534	0	1
3144	MMP13	ENST00000260302	p.G374R	c.1120	0.012157581	0	1
3144	MMP13	ENST00000260302	p.I411T	c.1232	0.012157581	6.362	1

3145 DHX58	ENST00000251642	p.V552M	c.1654	0.019478144	6.682	1
3145 DHX58	ENST00000251642	p.R646W	c.1936	1.009739072	0	1
3145 DHX58	ENST00000251642	p.R646Q	c.1937	1.009739072	0	1
3146 FARP1	ENST00000376586	p.S564P	c.1690	1.004483994	0	1
3146 FARP1	ENST00000376586	p.S564L	c.1691	1.004483994	0	1
3146 FARP1	ENST00000376586	p.V673L	c.2017	0.008967988	7.801	1
3147 USP21	ENST00000289865	p.L400M	c.1198	0.156691628	0	1
3147 USP21	ENST00000289865	p.H462L	c.1385	0.156691628	2.674	1
3148 DNMT3A	ENST00000321117	p.Y533C	c.1598	0.035545936	4.913	1
3148 DNMT3A	ENST00000321117	p.R556M	c.1667	0.104095942	0	1
3148 DNMT3A	ENST00000321117	p.M585L	c.1753	0.073256929	3.818	1
3149 DARS2	ENST00000361951	p.E225D	c.675	0.002153651	8.859	1
3149 DARS2	ENST00000361951	p.E277D	c.831	0.002153651	0	1
3150 PLAT	ENST00000220809	p.A356T	c.1066	0.105989996	3.238	1
3150 PLAT	ENST00000220809	p.G381D	c.1142	0.105989996	0	1
3151 PGAM1	ENST00000334828	p.P173S	c.517	0.01431826	6.126	1
3151 PGAM1	ENST00000334828	p.A3S	c.7	0.01431826	0	1
3152 AP1B1	ENST00000405198	p.M74I	c.222	0.004616451	7.759	1
3152 AP1B1	ENST00000405198	p.A106E	c.317	0.010213958	0	1
3152 AP1B1	ENST00000405198	p.Y136F	c.407	0.005597506	7.481	1
3153 MMP16	ENST00000286614	p.W159S	c.476	0.115045889	0	1
3153 MMP16	ENST00000286614	p.H246L	c.737	0.031131987	5.125	1
3153 MMP16	ENST00000286614	p.L254V	c.760	0.088865123	3.533	1
3154 DPP4	ENST00000360534	p.G643E	c.1928	0.030344537	6.382	1
3154 DPP4	ENST00000360534	p.F647L	c.1941	0.108006895	3.228	1
3154 DPP4	ENST00000360534	p.V698F	c.2092	0.118717418	0	1
3155 NSD1	ENST00000439151	p.Y1997C	c.5990	0.024247839	5.366	1
3155 NSD1	ENST00000439151	p.F2018L	c.6054	0.049931595	0	1
3155 NSD1	ENST00000439151	p.L2054R	c.6161	0.025683756	5.283	1
3156 AGTR1	ENST00000404754	p.F117L	c.349	0.203208759	0	1
3156 AGTR1	ENST00000404754	p.L202M	c.604	0.166899316	2.644	1
3156 AGTR1	ENST00000404754	p.I211M	c.633	0.050139971	4.532	1
3157 F11R	ENST00000368026	p.V46A	c.137	0.087546481	0	1
3157 F11R	ENST00000368026	p.R86L	c.257	0.009066485	7.384	1
3157 F11R	ENST00000368026	p.I94M	c.282	0.081559684	3.616	1
3158 CNOT1	ENST00000317147	p.V2171L	c.6511	0.029728696	5.072	1
3158 CNOT1	ENST00000317147	p.N2211S	c.6632	0.050048073	0	1
3158 CNOT1	ENST00000317147	p.L2265F	c.6793	0.020319377	5.621	1
3159 GLUL	ENST00000311223	p.F89L	c.267	0.148500682	2.871	1
3159 GLUL	ENST00000311223	p.Y137H	c.409	0.187398367	3.533	1
3159 GLUL	ENST00000311223	p.V176M	c.526	0.230210863	0	1
3159 GLUL	ENST00000311223	p.P199S	c.595	0.170522998	7.132	1
3160 TBL1XR1	ENST00000457928	p.D504Y	c.1510	0.202786742	3.643	1
3160 TBL1XR1	ENST00000457928	p.R166W	c.496	1.082938924	0	1
3160 TBL1XR1	ENST00000457928	p.R166Q	c.497	1.082938924	0	1
3160 TBL1XR1	ENST00000457928	p.E171K	c.511	0.223798952	8.434	1
3161 ITGAM	ENST00000544665	p.A407T	c.1219	0.037684125	0	1
3161 ITGAM	ENST00000544665	p.A523T	c.1567	0.011241669	6.475	1
3161 ITGAM	ENST00000544665	p.A524S	c.1570	0.034190243	5.241	1

3162 PPP2R4	ENST00000452489	p.C94S	c.281	0.009005362	6.795	1
3162 PPP2R4	ENST00000452489	p.P96A	c.286	0.008838394	6.822	1
3162 PPP2R4	ENST00000452489	p.L198F	c.592	0.017843756	0	1
3163 TNPO1	ENST00000337273	p.I802M	c.2406	0.131843208	0	1
3163 TNPO1	ENST00000337273	p.S834T	c.2501	0.062223641	4.09	1
3163 TNPO1	ENST00000337273	p.G835S	c.2503	0.122665902	4.067	1
3163 TNPO1	ENST00000337273	p.L857P	c.2570	0.063048534	8.138	1
3163 TNPO1	ENST00000337273	p.R879C	c.2635	0.009909308	6.657	1
3164 TEK	ENST00000380036	p.G58E	c.173	0.142496659	0	1
3164 TEK	ENST00000380036	p.F101L	c.303	0.142496659	2.811	1
3165 IL13RA1	ENST00000371666	p.E279Q	c.835	0.005208198	0	1
3165 IL13RA1	ENST00000371666	p.N317K	c.951	0.005208198	7.585	1
3166 MST1R	ENST00000296474	p.R1118C	c.3352	0.113341739	0	1
3166 MST1R	ENST00000296474	p.R1231C	c.3691	0.084636538	3.607	1
3166 MST1R	ENST00000296474	p.D1235E	c.3705	0.033838136	4.999	1
3167 ACSM2A	ENST00000424070	p.Q139K	c.415	0.148223403	4.66	1
3167 ACSM2A	ENST00000424070	p.M140I	c.420	0.081265689	5.799	1
3167 ACSM2A	ENST00000424070	p.D161N	c.481	0.033838531	8.227	1
3167 ACSM2A	ENST00000424070	p.E162K	c.484	0.176061025	0	1
3168 CDC42BPB	ENST00000361246	p.D75N	c.223	1.008856792	0	1
3168 CDC42BPB	ENST00000361246	p.D75E	c.225	1.008856792	0	1
3168 CDC42BPB	ENST00000361246	p.T98I	c.293	0.017713585	6.819	1
3169 SULT1B1	ENST00000310613	p.L86I	c.256	0.013715966	6.188	1
3169 SULT1B1	ENST00000310613	p.L89F	c.267	0.067779838	3.883	1
3169 SULT1B1	ENST00000310613	p.P245T	c.733	0.081495804	0	1
3170 ERBB4	ENST00000342788	p.Q558H	c.1674	0.034149304	4.872	1
3170 ERBB4	ENST00000342788	p.F583Y	c.1748	0.041175697	0	1
3170 ERBB4	ENST00000342788	p.P610T	c.1828	0.007026393	7.153	1
3171 GIMAP4	ENST00000461940	p.G56E	c.167	1.070024326	0	2
3171 GIMAP4	ENST00000461940	p.V134L	c.400	0.140048652	3.836	1
3172 XDH	ENST00000379416	p.D719N	c.2155	0.113714773	3.267	1
3172 XDH	ENST00000379416	p.L860F	c.2578	0.125779599	0	1
3172 XDH	ENST00000379416	p.R896W	c.2686	0.031732907	5.513	1
3173 GMPS	ENST00000496455	p.M107V	c.319	0.085329904	0	1
3173 GMPS	ENST00000496455	p.V157A	c.470	0.074583484	3.745	1
3173 GMPS	ENST00000496455	p.A168V	c.503	0.01074642	6.54	1
3174 CSF1R	ENST00000286301	p.L263F	c.787	0.011973593	0	1
3174 CSF1R	ENST00000286301	p.F293C	c.878	0.011973593	6.384	1
3175 KYNU	ENST00000264170	p.P334L	c.1001	0.065471008	3.933	1
3175 KYNU	ENST00000264170	p.I110N	c.329	0.065471008	0	1
3176 RGS7	ENST00000407727	p.E383K	c.1147	1.009881871	0	2
3176 RGS7	ENST00000407727	p.V411M	c.1231	0.019763743	6.661	1
3177 NAALAD2	ENST00000534061	p.V165L	c.493	0.055552668	4.17	1
3177 NAALAD2	ENST00000534061	p.C186S	c.557	0.055552668	0	1
3178 SI	ENST00000264382	p.D69Y	c.205	0.021777313	0	1
3178 SI	ENST00000264382	p.C94S	c.280	0.013536513	6.207	1
3178 SI	ENST00000264382	p.P104R	c.311	0.008240799	6.923	1
3179 PKP1	ENST00000263946	p.P382S	c.1144	0.010664795	6.551	1
3179 PKP1	ENST00000263946	p.F403V	c.1207	0.010664795	0	1

3180	PTK2B	ENST00000544172	p.M537I	c.1611	0.260420476	0	1
3180	PTK2B	ENST00000544172	p.L565M	c.1693	0.225706068	2.21	1
3180	PTK2B	ENST00000544172	p.F611S	c.1832	0.053857929	4.497	1
3181	EXOSC7	ENST00000265564	p.D120Y	c.358	0.085555238	3.547	1
3181	EXOSC7	ENST00000265564	p.K122N	c.366	0.007324774	7.093	1
3181	EXOSC7	ENST00000265564	p.V194A	c.581	0.094920317	0	1
3181	EXOSC7	ENST00000265564	p.H267L	c.800	0.002040304	8.937	1
3183	ENPP4	ENST00000321037	p.L265W	c.794	0.091425374	3.52	1
3183	ENPP4	ENST00000321037	p.M291I	c.873	0.11603141	4.357	1
3183	ENPP4	ENST00000321037	p.L316F	c.948	0.066051651	8.346	1
3183	ENPP4	ENST00000321037	p.I324M	c.972	0.139043926	0	1
3184	VAT1L	ENST00000302536	p.E362K	c.1084	0.00535091	0	1
3184	VAT1L	ENST00000302536	p.R88Q	c.263	0.00535091	7.546	1
3185	CYP2C9	ENST00000260682	p.G135R	c.403	0.025068161	5.318	1
3185	CYP2C9	ENST00000260682	p.M269I	c.807	0.025068161	0	1
3186	FARS2	ENST00000324331	p.R338C	c.1012	0.043252655	8.049	1
3186	FARS2	ENST00000324331	p.M421K	c.1262	0.29136523	3.188	1
3186	FARS2	ENST00000324331	p.P327L	c.980	0.047018858	7.925	1
3186	FARS2	ENST00000324331	p.R330C	c.988	1.117618221	0	1
3186	FARS2	ENST00000324331	p.R330H	c.989	1.117618221	0	1
3187	CASP1	ENST00000598974	p.E367K	c.1099	0.045911921	4.486	1
3187	CASP1	ENST00000598974	p.V392M	c.1174	0.073460827	0	1
3187	CASP1	ENST00000598974	p.A329T	c.985	0.0301225	5.116	1
3188	EPHA5	ENST00000273854	p.R804K	c.2411	0.105330854	0	1
3188	EPHA5	ENST00000273854	p.W844L	c.2531	0.105330854	3.247	1
3189	PTPRF	ENST00000359947	p.R808G	c.2422	0.015682353	6.297	1
3189	PTPRF	ENST00000359947	p.P811S	c.2431	0.236061112	2.101	1
3189	PTPRF	ENST00000359947	p.R891W	c.2671	0.245814484	0	1
3190	PIP4K2C	ENST00000540759	p.R112H	c.335	0.047243873	6.477	1
3190	PIP4K2C	ENST00000540759	p.R147W	c.439	0.017240481	6.987	1
3190	PIP4K2C	ENST00000540759	p.R204H	c.611	1.019109311	0	2
3191	PLXNC1	ENST00000258526	p.S462L	c.1385	1.008789519	0	2
3191	PLXNC1	ENST00000258526	p.P507L	c.1520	0.017579039	6.83	1
3192	WIF1	ENST00000286574	p.V147L	c.439	0.198196034	0	1
3192	WIF1	ENST00000286574	p.F174L	c.522	0.198196034	2.335	1
3193	FANCE	ENST00000229769	p.S356N	c.1067	0.042718358	5.549	1
3193	FANCE	ENST00000229769	p.P397S	c.1189	1.021359179	0	1
3193	FANCE	ENST00000229769	p.P397T	c.1189	1.021359179	0	1
3194	CALCRL	ENST00000392370	p.Q86K	c.256	0.008728806	6.84	1
3194	CALCRL	ENST00000392370	p.T122I	c.365	0.008728806	0	1
3195	PPP1CC	ENST00000340766	p.E56K	c.166	0.052483218	4.252	1
3195	PPP1CC	ENST00000340766	p.V165M	c.493	0.052483218	0	1
3196	B2M	ENST00000559916	p.Y98C	c.293	0.082640913	0	1
3196	B2M	ENST00000559916	p.L15F	c.43	0.082640913	3.597	1
3197	PGF	ENST00000405431	p.R53Q	c.158	0.044831052	6.06	1
3197	PGF	ENST00000405431	p.E129K	c.385	1.014988502	0	1
3197	PGF	ENST00000405431	p.E129G	c.386	1.014988502	0	1
3198	THBS1	ENST00000260356	p.I945T	c.2834	0.021389396	5.718	1
3198	THBS1	ENST00000260356	p.D956N	c.2866	0.128260726	2.99	1

3198	THBS1	ENST00000260356	p.D1001N	c.3001	0.144867558	0	1
3200	MGAM	ENST00000475668	p.L871F	c.2611	1.096272805	0	1
3200	MGAM	ENST00000475668	p.L871I	c.2611	1.096272805	0	1
3200	MGAM	ENST00000475668	p.I886T	c.2657	0.112005512	6.9	1
3200	MGAM	ENST00000475668	p.G947E	c.2840	0.271058202	3.508	1
3201	SMS	ENST00000404933	p.L295I	c.883	0.00805444	0	1
3201	SMS	ENST00000404933	p.A324S	c.970	0.00805444	6.956	1
3202	CASP8	ENST00000358485	p.G421E	c.1262	0.124653906	3.004	1
3202	CASP8	ENST00000358485	p.V469A	c.1406	0.124653906	0	1
3203	AKR1B1	ENST00000285930	p.Y40H	c.118	0.109196612	4.195	1
3203	AKR1B1	ENST00000285930	p.R269H	c.806	1.054598306	0	2
3204	NLRX1	ENST00000292199	p.G723R	c.2167	0.00482251	7.696	1
3204	NLRX1	ENST00000292199	p.P747L	c.2240	0.00482251	0	1
3205	CYP3A4	ENST00000336411	p.D194N	c.580	0.00977966	6.676	1
3205	CYP3A4	ENST00000336411	p.F219L	c.657	0.00977966	0	1
3206	RNASE4	ENST00000304704	p.R38Q	c.113	0.073099229	3.774	1
3206	RNASE4	ENST00000304704	p.I90T	c.269	0.086183705	0	1
3206	RNASE4	ENST00000304704	p.V131I	c.391	0.043904248	6.256	1
3207	PABPC3	ENST00000281589	p.V338E	c.1013	0.082640913	3.597	1
3207	PABPC3	ENST00000281589	p.R311W	c.931	0.082640913	0	1
3208	CLK1	ENST00000434813	p.P441R	c.1322	0.039172907	0	1
3208	CLK1	ENST00000434813	p.D503N	c.1507	0.039172907	4.674	1
3209	TTN	ENST00000589042	p.L35132I	c.105394	0.040553383	4.922	1
3209	TTN	ENST00000589042	p.P35158T	c.105472	0.262396024	0	1
3209	TTN	ENST00000589042	p.N35205S	c.105614	0.2369773	2.124	1
3210	CYP2C9	ENST00000260682	p.F448L	c.1344	0.168670681	0	1
3210	CYP2C9	ENST00000260682	p.A149T	c.445	0.10900898	3.573	1
3210	CYP2C9	ENST00000260682	p.L152F	c.454	0.119517892	3.589	1
3210	CYP2C9	ENST00000260682	p.R186C	c.556	0.028358049	9.34	1
3211	GINS2	ENST00000253462	p.L46M	c.136	0.031271668	4.999	1
3211	GINS2	ENST00000253462	p.E94G	c.281	0.031271668	0	1
3212	TAT	ENST00000355962	p.G180R	c.538	1.007345111	0	1
3212	TAT	ENST00000355962	p.G180E	c.539	1.007345111	0	1
3212	TAT	ENST00000355962	p.R315S	c.943	0.035207739	7.089	1
3213	PAK7	ENST00000378423	p.E542K	c.1624	0.009125046	6.962	1
3213	PAK7	ENST00000378423	p.T547N	c.1640	0.138746734	2.861	1
3213	PAK7	ENST00000378423	p.G704V	c.2111	0.145663712	0	1
3214	FERMT3	ENST00000279227	p.R360H	c.1079	0.080604266	0	1
3214	FERMT3	ENST00000279227	p.P395H	c.1184	0.080604266	3.633	1
3215	THOP1	ENST00000307741	p.V496M	c.1486	0.01510322	0	1
3215	THOP1	ENST00000307741	p.G649F	c.1945_1946	0.01510322	6.049	1
3216	HSPA6	ENST00000309758	p.F70L	c.210	0.010435239	8.12	1
3216	HSPA6	ENST00000309758	p.R266H	c.797	1.003594483	0	2
3217	RNASE4	ENST00000304704	p.R51C	c.151	0.014160343	6.142	1
3217	RNASE4	ENST00000304704	p.S115F	c.344	0.014160343	0	1
3218	VAV1	ENST00000602142	p.E372K	c.1114	0.010089511	6.631	1
3218	VAV1	ENST00000602142	p.F540V	c.1618	0.010089511	0	1
3219	LRRRC4	ENST00000249363	p.R150Q	c.449	0.270010359	0	1
3219	LRRRC4	ENST00000249363	p.S172F	c.515	0.133765355	3.109	1

3219 LRRC4	ENST00000249363	p.R175H	c.524	0.17732641	2.698	1
3220 ALB	ENST00000295897	p.R434C	c.1300	1.166829236	0	2
3220 ALB	ENST00000295897	p.S513L	c.1538	0.164061135	3.67	1
3220 ALB	ENST00000295897	p.V517L	c.1549	0.194264953	3.502	1
3221 BROX	ENST00000340934	p.Q186E	c.556	0.02185395	5.629	1
3221 BROX	ENST00000340934	p.Q188R	c.563	0.083150107	3.617	1
3221 BROX	ENST00000340934	p.F219S	c.656	0.101710186	0	1
3222 RPS27A	ENST00000272317	p.Y59C	c.176	0.005306587	7.558	1
3222 RPS27A	ENST00000272317	p.S20W	c.59	0.005306587	0	1
3223 PPP2CA	ENST00000481195	p.T112A	c.334	0.037369369	4.742	1
3223 PPP2CA	ENST00000481195	p.P154S	c.460	0.037369369	0	1
3224 PPP2R2A	ENST00000315985	p.S89G	c.265	0.013807533	0	1
3224 PPP2R2A	ENST00000315985	p.P178S	c.532	0.012259127	6.35	1
3224 PPP2R2A	ENST00000315985	p.R179Q	c.536	0.001548407	9.335	1
3225 MAOA	ENST00000338702	p.V17L	c.49	0.030380919	0	1
3225 MAOA	ENST00000338702	p.I254V	c.760	0.011382806	6.457	1
3225 MAOA	ENST00000338702	p.K267T	c.800	0.018998114	5.718	1
3226 EEF1A1	ENST00000316292	p.K5N	c.15	0.151144459	2.726	1
3226 EEF1A1	ENST00000316292	p.S83in_frame_del	c.250_248	0.151144459	0	1
3227 VWF	ENST00000261405	p.K1720N	c.5160	1.145591698	0	2
3227 VWF	ENST00000261405	p.G1864D	c.5591	0.291183397	2.78	1
3228 PRDM12	ENST00000253008	p.S94C	c.281	0.035402621	0	1
3228 PRDM12	ENST00000253008	p.R168C	c.502	0.035402621	4.82	1
3229 MERTK	ENST00000295408	p.V418L	c.1252	0.058475202	0	1
3229 MERTK	ENST00000295408	p.G467R	c.1399	0.03890232	4.684	1
3229 MERTK	ENST00000295408	p.G468R	c.1402	0.019572882	5.675	1
3230 ARG2	ENST00000261783	p.G118in_frame_del	c.349_351	0.040554336	0	1
3230 ARG2	ENST00000261783	p.V297A	c.890	0.040554336	4.624	1
3231 DLC1	ENST00000276297	p.R1086C	c.3256	0.170636715	0	1
3231 DLC1	ENST00000276297	p.R1121Q	c.3362	0.170636715	2.551	1
3232 HEXA	ENST00000566304	p.R148G	c.442	0.158596643	0	1
3232 HEXA	ENST00000566304	p.R181Q	c.542	0.074754448	3.863	1
3232 HEXA	ENST00000566304	p.L198M	c.592	0.026705917	8.859	1
3232 HEXA	ENST00000566304	p.R260W	c.778_777	0.118297687	3.511	1
3233 KLRC1	ENST00000359151	p.E141K	c.421	0.006279811	8.368	1
3233 KLRC1	ENST00000359151	p.R179C	c.535	0.049289697	0	1
3233 KLRC1	ENST00000359151	p.D200Y	c.598	0.046262916	4.434	1
3234 SPARC	ENST00000231061	p.R168L	c.503	0.036494271	6.578	1
3234 SPARC	ENST00000231061	p.E221K	c.661	1.010467059	0	1
3234 SPARC	ENST00000231061	p.E221D	c.663	1.010467059	0	1
3235 NTRK1	ENST00000524377	p.R342Q	c.1025	1.010926688	0	2
3235 NTRK1	ENST00000524377	p.P309S	c.925	0.033810382	6.516	1
3236 TRMT61B	ENST00000306108	p.A357D	c.1070	0.012824088	0	1
3236 TRMT61B	ENST00000306108	p.L466I	c.1396	0.012824088	6.285	1
3237 UPF2	ENST00000357604	p.A540T	c.1618	0.008093615	0	1
3237 UPF2	ENST00000357604	p.R606W	c.1816	0.008093615	6.949	1
3238 RAB8A	ENST00000586682	p.A152T	c.454	1.152512564	0	1
3238 RAB8A	ENST00000586682	p.A152V	c.455	1.152512564	0	1
3238 RAB8A	ENST00000586682	p.R27C	c.79	0.305025128	2.713	1

3239	GLOD4	ENST00000301328	p.R145C	c.433	0.09985649	3.324	1
3239	GLOD4	ENST00000301328	p.A188V	c.563	0.09985649	0	1
3240	PLEC	ENST00000322810	p.V777E	c.2330	0.006528648	7.259	1
3240	PLEC	ENST00000322810	p.V988M	c.2962	0.006528648	0	1
3241	TLR4	ENST00000355622	p.D60N	c.177_178	1.012502416	0	1
3241	TLR4	ENST00000355622	p.D60E	c.180	1.012502416	0	1
3241	TLR4	ENST00000355622	p.I108V	c.322	0.014998895	7.059	1
3241	TLR4	ENST00000355622	p.V30M	c.88	0.010005936	7.643	1
3242	NCAM2	ENST00000400546	p.Q616K	c.1846	0.437693625	3.624	1
3242	NCAM2	ENST00000400546	p.P677L	c.2030	1.103452188	0	2
3242	NCAM2	ENST00000400546	p.T678R	c.2033	0.32016331	5.484	1
3243	WWC1	ENST00000521089	p.I662V	c.1984	0.024478954	6.295	1
3243	WWC1	ENST00000521089	p.V700M	c.2098	0.038499333	5.224	1
3243	WWC1	ENST00000521089	p.D747N	c.2239	0.039491389	0	1
3244	FECH	ENST00000382873	p.L337F	c.1009	0.007807087	0	1
3244	FECH	ENST00000382873	p.R304Q	c.911	0.007807087	7.001	1
3245	NOVA1	ENST00000539517	p.L55I	c.163	0.090377802	0	1
3245	NOVA1	ENST00000539517	p.Y92C	c.275	0.06119837	4.486	1
3245	NOVA1	ENST00000539517	p.T193S	c.577	0.062325924	4.45	1
3246	DDB1	ENST00000301764	p.I178V	c.532	0.02012315	5.635	1
3246	DDB1	ENST00000301764	p.P206L	c.617	0.052542523	0	1
3246	DDB1	ENST00000301764	p.G242D	c.725	0.032419373	4.947	1
3247	RRM2	ENST00000360566	p.M375I	c.1125	0.112500241	0	1
3247	RRM2	ENST00000360566	p.W305C	c.915	0.112500241	3.152	1
3248	IL10RA	ENST00000227752	p.R165Q	c.494	0.009499057	0	1
3248	IL10RA	ENST00000227752	p.N189K	c.567	0.009499057	6.718	1
3249	RND1	ENST00000309739	p.R130Q	c.389	0.007625248	0	1
3249	RND1	ENST00000309739	p.G167D	c.500	0.007625248	7.035	1
3250	GOT1	ENST00000370508	p.V50A	c.149	0.018236845	0	1
3250	GOT1	ENST00000370508	p.G262W	c.784	0.018236845	5.777	1
3251	XDH	ENST00000379416	p.A1084T	c.3250	0.064034801	0	1
3251	XDH	ENST00000379416	p.A1253V	c.3758	0.064034801	3.965	1
3252	PTK2B	ENST00000544172	p.R68W	c.202	0.155717177	0	1
3252	PTK2B	ENST00000544172	p.T110M	c.329	0.155717177	2.683	1
3253	MERTK	ENST00000295408	p.D706N	c.2116	0.017181502	0	1
3253	MERTK	ENST00000295408	p.R851G	c.2551	0.017181502	5.863	1
3254	LDLR	ENST00000557933	p.V430A	c.1289	0.19959574	0	1
3254	LDLR	ENST00000557933	p.D477N	c.1429	0.117369775	3.346	1
3254	LDLR	ENST00000557933	p.E650V	c.1949	0.120274903	3.304	1
3255	PCSK9	ENST00000302118	p.E195K	c.583	0.327493005	0	1
3255	PCSK9	ENST00000302118	p.G232R	c.694	0.079584624	3.99	1
3255	PCSK9	ENST00000302118	p.G236D	c.707	0.137808622	3.139	1
3255	PCSK9	ENST00000302118	p.R237Q	c.710	0.177691185	2.727	1
3256	CHN2	ENST00000539406	p.N126K	c.378	0.042972022	4.66	1
3256	CHN2	ENST00000539406	p.R133I	c.398	0.089806641	3.533	1
3256	CHN2	ENST00000539406	p.G165E	c.494	0.125944406	0	1
3257	NEK1	ENST00000507142	p.A115P	c.343	0.006070369	0	1
3257	NEK1	ENST00000507142	p.L266I	c.796	0.006070369	7.364	1
3258	AP1B1	ENST00000405198	p.A381T	c.1141	0.013621222	6.198	1

3258 AP1B1	ENST00000405198	p.E550K	c.1648	0.013621222	0	1
3259 MMP9	ENST00000372330	p.G367R	c.1099	0.199712979	2.324	1
3259 MMP9	ENST00000372330	p.L28P	c.83	0.199712979	0	1
3260 DPEP1	ENST00000261615	p.N279S	c.836	0.010832391	6.726	1
3260 DPEP1	ENST00000261615	p.S281F	c.842	0.148091885	2.769	1
3260 DPEP1	ENST00000261615	p.R331K	c.992	0.156152551	0	1
3262 MAGI2	ENST00000354212	p.L1004I	c.3010	0.330095927	1.934	1
3262 MAGI2	ENST00000354212	p.R1005C	c.3013	0.329733381	1.936	1
3262 MAGI2	ENST00000354212	p.L1033M	c.3097	0.523042596	0	1
3263 EFNA5	ENST00000333274	p.V82M	c.244	0.00431926	7.855	1
3263 EFNA5	ENST00000333274	p.D91N	c.271	0.029977004	5.06	1
3263 EFNA5	ENST00000333274	p.C151R	c.451	0.034296264	0	1
3264 PC	ENST00000393958	p.E896D	c.2688	0.151952425	0	1
3264 PC	ENST00000393958	p.S927N	c.2780	0.052913242	4.383	1
3264 PC	ENST00000393958	p.R928L	c.2783	0.121958046	3.265	1
3265 NOTCH1	ENST00000277541	p.C416F	c.1247	0.008887541	6.814	1
3265 NOTCH1	ENST00000277541	p.2439in_frame_insG	c.7314_7313	0.008887541	0	1
3266 CHRNB2	ENST00000368476	p.L60F	c.178	0.120724517	0	1
3266 CHRNB2	ENST00000368476	p.Q85K	c.253	0.113204248	3.143	1
3266 CHRNB2	ENST00000368476	p.R174C	c.520	0.007520269	7.055	1
3267 ADAM22	ENST00000315984	p.H528R	c.1583	0.103664943	3.27	1
3267 ADAM22	ENST00000315984	p.S695N	c.2084	0.103664943	0	1
3268 PTPRM	ENST00000400060	p.G1114W	c.3340	0.01286861	0	1
3268 PTPRM	ENST00000400060	p.V1149G	c.3446	0.01286861	6.28	1
3269 TOP3A	ENST00000321105	p.A344V	c.1031	0.074222479	0	1
3269 TOP3A	ENST00000321105	p.A539V	c.1616	0.074222479	3.752	1
3270 CLK2	ENST00000536801	p.Y262C	c.785	0.009973389	0	1
3270 CLK2	ENST00000536801	p.D302H	c.904	0.001483273	9.397	1
3270 CLK2	ENST00000536801	p.R316H	c.947	0.008490116	6.88	1
3271 KCNMA1	ENST00000404771	p.R771Q	c.2312	0.015030116	0	1
3271 KCNMA1	ENST00000404771	p.A853T	c.2557	0.015030116	6.056	1
3272 RAB6B	ENST00000285208	p.S100F	c.299	0.08099631	3.626	1
3272 RAB6B	ENST00000285208	p.V24G	c.71	0.08099631	0	1
3273 ELMO1	ENST00000442504	p.S580L	c.1739	0.007845059	6.994	1
3273 ELMO1	ENST00000442504	p.D602N	c.1804	0.007845059	0	1
3275 ZAP70	ENST00000264972	p.P421Q	c.1262	0.074770658	3.772	1
3275 ZAP70	ENST00000264972	p.R465H	c.1394	0.094648831	0	1
3275 ZAP70	ENST00000264972	p.Y506H	c.1516	0.023018216	5.543	1
3276 PFKM	ENST00000340802	p.G532R	c.1594	0.079384436	0	1
3276 PFKM	ENST00000340802	p.R744M	c.2231	0.079384436	3.655	1
3277 HMGCS2	ENST00000369406	p.A399S	c.1195	0.027057244	0	1
3277 HMGCS2	ENST00000369406	p.Q427K	c.1279	0.011048543	6.5	1
3277 HMGCS2	ENST00000369406	p.A430D	c.1289	0.0160087	5.965	1
3278 AIM2	ENST00000368130	p.I337in_frame_del	c.1012_1010	0.022939854	0	1
3278 AIM2	ENST00000368130	p.G307R	c.919	0.022939854	5.446	1
3279 EGLN1	ENST00000366641	p.D392G	c.1175	0.126441028	3.225	1
3279 EGLN1	ENST00000366641	p.V412G	c.1235	0.201742822	2.456	1
3279 EGLN1	ENST00000366641	p.G294S	c.880	0.289200551	0	1
3280 CTSB	ENST00000236671	p.W383C	c.1149	0.090058109	3.473	1

3280	CTSD	ENST00000236671	p.P304L	c.911_910	0.090058109	0	1
3281	CST5	ENST00000304710	p.D62N	c.184	0.152195752	0	1
3281	CST5	ENST00000304710	p.R92Q	c.275	0.152195752	2.716	1
3283	MUTYH	ENST00000450313	p.D236A	c.707	0.005734963	7.446	1
3283	MUTYH	ENST00000450313	p.R241W	c.721	0.046102858	4.439	1
3283	MUTYH	ENST00000450313	p.A287D	c.860	0.051837821	0	1
3284	CA4	ENST00000300900	p.V40A	c.119	0.026314467	5.248	1
3284	CA4	ENST00000300900	p.R215I	c.644_645	0.026314467	0	1
3285	AGTR1	ENST00000404754	p.G45R	c.133	0.015538596	6.008	1
3285	AGTR1	ENST00000404754	p.V52A	c.155	0.055552668	4.17	1
3285	AGTR1	ENST00000404754	p.F313C	c.938	0.071091264	0	1
3286	KCNK1	ENST00000366621	p.P199L	c.596	0.001544119	9.339	1
3286	KCNK1	ENST00000366621	p.C251Y	c.752	0.001544119	0	1
3287	TRAF6	ENST00000348124	p.H376Y	c.1126	0.105726569	3.317	1
3287	TRAF6	ENST00000348124	p.M414I	c.1242	0.059044735	4.22	1
3287	TRAF6	ENST00000348124	p.R466W	c.1396	0.154002513	0	1
3288	ABL2	ENST00000502732	p.A443T	c.1327	0.078781462	0	1
3288	ABL2	ENST00000502732	p.F471C	c.1412	0.078781462	3.666	1
3289	BLM	ENST00000355112	p.D1076G	c.3227	0.095977588	3.407	1
3289	BLM	ENST00000355112	p.D1079N	c.3235	0.019777086	5.79	1
3289	BLM	ENST00000355112	p.V1187L	c.3559	0.112347008	0	1
3290	FGFR2	ENST00000457416	p.L561F	c.1681	1.028458432	0	2
3290	FGFR2	ENST00000457416	p.P709S	c.2125	0.056916865	5.135	1
3291	NUDC	ENST00000321265	p.Y172H	c.514	0.007731693	7.015	1
3291	NUDC	ENST00000321265	p.P262S	c.784	0.007731693	0	1
3292	ITGAV	ENST00000261023	p.Q664E	c.1990	0.032307211	4.952	1
3292	ITGAV	ENST00000261023	p.A719T	c.2155	0.032307211	0	1
3293	FLT1	ENST00000282397	p.P143S	c.427	0.022377743	5.624	1
3293	FLT1	ENST00000282397	p.L169S	c.506	0.105693688	3.271	1
3293	FLT1	ENST00000282397	p.T176I	c.527	0.009394291	6.734	1
3293	FLT1	ENST00000282397	p.T206N	c.617	0.133264572	0	1
3294	GRASP	ENST00000293662	p.K106M	c.317	0.011605882	0	1
3294	GRASP	ENST00000293662	p.L182I	c.544	0.011605882	6.429	1
3295	NUDT21	ENST00000300291	p.D143G	c.428	0.09944206	3.33	1
3295	NUDT21	ENST00000300291	p.L33R	c.98	0.09944206	0	1
3296	BCHE	ENST00000264381	p.P429S	c.1285	0.047970859	4.9	1
3296	BCHE	ENST00000264381	p.H466Q	c.1398	0.025612644	5.287	1
3296	BCHE	ENST00000264381	p.W259C	c.777	0.082204978	0	1
3296	BCHE	ENST00000264381	p.P320A	c.958	0.023099413	5.436	1
3297	CHI3L1	ENST00000255409	p.L94F	c.282	0.083248887	0	1
3297	CHI3L1	ENST00000255409	p.L127V	c.379	0.069637103	3.844	1
3297	CHI3L1	ENST00000255409	p.H130N	c.388	0.013611784	6.199	1
3298	ENPEP	ENST00000265162	p.P564Q	c.1691	0.024501264	5.351	1
3298	ENPEP	ENST00000265162	p.R667I	c.2000	0.051724833	0	1
3298	ENPEP	ENST00000265162	p.T931I	c.2792	0.027223569	5.199	1
3299	ENPP4	ENST00000321037	p.Y94H	c.280	0.101074719	4.39	1
3299	ENPP4	ENST00000321037	p.W112S	c.335	0.244008155	3.069	1
3299	ENPP4	ENST00000321037	p.R310Q	c.929	1.166857918	0	2
3300	PIP	ENST00000291009	p.A88S	c.262	0.00379417	8.042	1

3300 PIP	ENST00000291009	p.C91W	c.273	0.006003419	7.38	1
3300 PIP	ENST00000291009	p.P124T	c.370	0.009797589	0	1
3301 FABP2	ENST00000274024	p.G76E	c.227	1.124424912	0	2
3301 FABP2	ENST00000274024	p.E102K	c.304	0.218904802	3.203	1
3301 FABP2	ENST00000274024	p.V119A	c.356	0.051183274	5.981	1
3302 SAMHD1	ENST00000262878	p.R348C	c.1042	0.025768972	0	1
3302 SAMHD1	ENST00000262878	p.H517Y	c.1549	0.017003788	5.878	1
3302 SAMHD1	ENST00000262878	p.A529K	c.1586_1585	0.008765183	6.834	1
3303 ACADSB	ENST00000358776	p.T155R	c.464	0.014864348	6.072	1
3303 ACADSB	ENST00000358776	p.A273V	c.818	0.014864348	0	1
3304 GSTA1	ENST00000334575	p.M105I	c.315	0.139570043	6.093	1
3304 GSTA1	ENST00000334575	p.K127N	c.381	0.105745067	9.376	1
3304 GSTA1	ENST00000334575	p.R131C	c.391	1.01615457	0	1
3304 GSTA1	ENST00000334575	p.R131H	c.392	1.01615457	0	1
3305 ACACB	ENST00000338432	p.H589N	c.1765	0.028735939	0	1
3305 ACACB	ENST00000338432	p.F704L	c.2112	0.028735939	5.121	1
3306 HDAC4	ENST00000345617	p.Q85E	c.253	0.036906021	4.76	1
3306 HDAC4	ENST00000345617	p.Q107K	c.319	0.036906021	0	1
3307 F7	ENST00000375581	p.R462P	c.1385	0.037551127	4.735	1
3307 F7	ENST00000375581	p.P291R	c.872	0.037551127	0	1
3308 SEMA4D	ENST00000438547	p.E462K	c.1384	0.048011306	4.585	1
3308 SEMA4D	ENST00000438547	p.E628K	c.1882	0.158647005	2.715	1
3308 SEMA4D	ENST00000438547	p.R29Q	c.86	0.193966867	0	1
3309 AASDHPPT	ENST00000278618	p.E73D	c.219	0.065380309	0	1
3309 AASDHPPT	ENST00000278618	p.S280F	c.839	0.065380309	3.935	1
3310 MTA1	ENST00000331320	p.A201V	c.602	0.007139308	7.13	1
3310 MTA1	ENST00000331320	p.H202R	c.605	0.002562913	8.608	1
3310 MTA1	ENST00000331320	p.H259Y	c.775	0.009702221	0	1
3311 BCHE	ENST00000264381	p.L264V	c.790	0.241986757	0	1
3311 BCHE	ENST00000264381	p.V322M	c.964	0.241986757	2.047	1
3312 DSP	ENST00000379802	p.L2350V	c.7048	0.042071877	4.571	1
3312 DSP	ENST00000379802	p.Q2371R	c.7112	0.042071877	0	1
3313 CBS	ENST00000352178	p.E283K	c.847	0.029646385	0	1
3313 CBS	ENST00000352178	p.G307S	c.919	0.029646385	5.076	1
3314 AK5	ENST00000354567	p.D345N	c.1033	0.003192716	8.291	1
3314 AK5	ENST00000354567	p.L452F	c.1354	0.012502736	0	1
3314 AK5	ENST00000354567	p.P506H	c.1517	0.00931002	6.747	1
3315 AGO2	ENST00000220592	p.Y625C	c.1874	0.127787959	0	1
3315 AGO2	ENST00000220592	p.P802R	c.2405	0.115067537	3.14	1
3315 AGO2	ENST00000220592	p.Y857C	c.2570	0.029502842	6.123	1
3316 XRCC6	ENST00000405878	p.V482M	c.1444	0.054108535	4.208	1
3316 XRCC6	ENST00000405878	p.K282N	c.846	0.054108535	0	1
3317 QPCT	ENST00000338415	p.H360R	c.1079	0.036549615	4.774	1
3317 QPCT	ENST00000338415	p.D190V	c.569	0.036549615	0	1
3318 LIN28B	ENST00000345080	p.M41I	c.123	0.029831907	0	1
3318 LIN28B	ENST00000345080	p.H65D	c.193	0.029831907	5.067	1
3319 XYLB	ENST00000207870	p.L195F	c.585	0.20166044	2.31	1
3319 XYLB	ENST00000207870	p.M219V	c.655	0.20166044	0	1
3320 PEG3	ENST00000423103	p.Y54N	c.160	0.01270905	0	1

3320 PEG3	ENST00000423103	p.E122D	c.366	0.01270905	6.298	1
3321 CPM	ENST00000338356	p.V195L	c.583	0.211435397	0	1
3321 CPM	ENST00000338356	p.G251C	c.751	0.146376277	2.877	1
3321 CPM	ENST00000338356	p.T279M	c.836	0.08556242	3.731	1
3322 SYK	ENST00000375754	p.K387R	c.1160	2.108271004	0	2
3322 SYK	ENST00000375754	p.K387N	c.1161	2.108271004	0	1
3322 SYK	ENST00000375754	p.R590Q	c.1769	1.049483845	5.958	1
3322 SYK	ENST00000375754	p.R590H	c.1769_1770	1.049483845	5.958	1
3322 SYK	ENST00000375754	p.T610A	c.1828	0.230741935	3.716	1
3323 DPP4	ENST00000360534	p.I172S	c.515	0.026278013	0	1
3323 DPP4	ENST00000360534	p.A213G	c.638	0.026278013	5.25	1
3324 FOXO1	ENST00000379561	p.R214C	c.640	0.018274807	0	1
3324 FOXO1	ENST00000379561	p.W237C	c.711	0.018274807	5.774	1
3325 C1QB	ENST00000314933	p.R188W	c.562	0.023099413	0	1
3325 C1QB	ENST00000314933	p.G219R	c.655	0.023099413	5.436	1
3326 CDC25A	ENST00000302506	p.L376F	c.1126	0.070707154	0	1
3326 CDC25A	ENST00000302506	p.V425A	c.1274	0.070707154	3.822	1
3327 KLHL7	ENST00000339077	p.A379V	c.1136	0.090936293	3.459	1
3327 KLHL7	ENST00000339077	p.E427G	c.1280	0.090936293	0	1
3328 XDH	ENST00000379416	p.C43F	c.128	0.086509357	3.531	1
3328 XDH	ENST00000379416	p.A72D	c.215	0.086509357	0	1
3329 KLHL2	ENST00000514860	p.S345F	c.1034	0.010866265	6.524	1
3329 KLHL2	ENST00000514860	p.G367V	c.1100	0.069831156	0	1
3329 KLHL2	ENST00000514860	p.S558F	c.1673	0.058964891	4.084	1
3330 F5	ENST00000367796	p.A369V	c.1106	0.235104507	2.148	1
3330 F5	ENST00000367796	p.D372G	c.1115	0.051492918	4.573	1
3330 F5	ENST00000367796	p.K679N	c.2037	0.267638775	0	1
3331 TTN	ENST00000589042	p.K26078T	c.78233	0.05532211	4.176	1
3331 TTN	ENST00000589042	p.R26158K	c.78473	0.05532211	0	1
3332 RQCD1	ENST00000273064	p.R169Q	c.506	0.031906629	4.97	1
3332 RQCD1	ENST00000273064	p.I212L	c.634	0.031906629	0	1
3333 PPIC	ENST00000306442	p.D48G	c.143	0.003549915	0	1
3333 PPIC	ENST00000306442	p.S192L	c.575	0.003549915	8.138	1
3334 RPS4X	ENST00000316084	p.Y54C	c.161	0.102806259	3.282	1
3334 RPS4X	ENST00000316084	p.E97Q	c.289	0.102806259	0	1
3335 SERPINC1	ENST00000367698	p.L405R	c.1214	0.009844509	6.832	1
3335 SERPINC1	ENST00000367698	p.R457K	c.1370	0.130359211	0	1
3335 SERPINC1	ENST00000367698	p.Y95C	c.284	0.122649034	3.04	1
3336 IL2RB	ENST00000216223	p.R41T	c.122	0.176454413	6.86	1
3336 IL2RB	ENST00000216223	p.C46G	c.136	0.236981364	0	1
3336 IL2RB	ENST00000216223	p.C74S	c.220	0.067457847	4.116	1
3336 IL2RB	ENST00000216223	p.A85T	c.253	0.236151485	2.559	1
3336 IL2RB	ENST00000216223	p.H159N	c.475	0.131238738	9.954	1
3337 CRYBB1	ENST00000215939	p.W124Y	c.372_371	0.02335702	5.42	1
3337 CRYBB1	ENST00000215939	p.A171T	c.511	0.029608412	6.401	1
3337 CRYBB1	ENST00000215939	p.Y201C	c.602	0.03519035	0	1
3338 FNBP1	ENST00000446176	p.D119N	c.355	0.039664715	0	1
3338 FNBP1	ENST00000446176	p.K215N	c.645	0.039664715	4.656	1
3339 FLT3	ENST00000380982	p.V843A	c.2528	0.017565079	7.702	1

3339	FLT3	ENST00000380982	p.P896L	c.2687	1.004802496	0	2
3340	CEP170	ENST00000366542	p.D92G	c.275	0.007183985	7.121	1
3340	CEP170	ENST00000366542	p.S11C	c.31	0.007183985	0	1
3341	MITD1	ENST00000289359	p.E40K	c.118	0.075297726	0	1
3341	MITD1	ENST00000289359	p.A15T	c.43	0.015592542	6.003	1
3341	MITD1	ENST00000289359	p.V18M	c.52	0.059705184	4.066	1
3342	BTN3A1	ENST00000289361	p.H381Q	c.1143	0.014150531	0	1
3342	BTN3A1	ENST00000289361	p.L501F	c.1503	0.014150531	6.143	1
3343	PTPN1	ENST00000371621	p.A69T	c.205	0.113130434	6.191	1
3343	PTPN1	ENST00000371621	p.I219T	c.656	0.317993279	0	1
3343	PTPN1	ENST00000371621	p.R257W	c.769	0.260945965	2.831	1
3343	PTPN1	ENST00000371621	p.M258I	c.774	0.267513574	2.741	1
3343	PTPN1	ENST00000371621	p.C32G	c.94	0.111047687	6.139	1
3344	PARP10	ENST00000525773	p.R834C	c.2500	0.078508899	3.671	1
3344	PARP10	ENST00000525773	p.R864C	c.2590	0.078508899	0	1
3345	FCGR1A	ENST00000369168	p.H101Q	c.303	0.029117418	0	1
3345	FCGR1A	ENST00000369168	p.G180V	c.539	0.018504244	5.756	1
3345	FCGR1A	ENST00000369168	p.I181L	c.541	0.010613174	6.558	1
3346	LACTB2	ENST00000276590	p.S162F	c.485	0.002438146	0	1
3346	LACTB2	ENST00000276590	p.S183Y	c.548	0.002438146	8.68	1
3347	EZH2	ENST00000320356	p.Y646N	c.1936	2.076362069	0	2
3347	EZH2	ENST00000320356	p.Y646F	c.1938_1937	2.076362069	0	1
3347	EZH2	ENST00000320356	p.R690H	c.2069	0.229086207	3.711	1
3348	CLASP1	ENST00000263710	p.P447H	c.1340	0.077374393	0	1
3348	CLASP1	ENST00000263710	p.1483in_frame_insGK	c.4448_4447	0.077374393	3.692	1
3349	SERPINB1	ENST00000380739	p.A40G	c.119	0.007840558	0	1
3349	SERPINB1	ENST00000380739	p.F104L	c.312	0.005570413	7.488	1
3349	SERPINB1	ENST00000380739	p.S107L	c.320	0.002270145	8.783	1
3350	PBRM1	ENST00000296302	p.I709T	c.2126	0.04972103	0	1
3350	PBRM1	ENST00000296302	p.M731K	c.2192	0.04972103	4.33	1
3351	GBE1	ENST00000429644	p.R565W	c.1693	0.003554839	8.136	1
3351	GBE1	ENST00000429644	p.R226I	c.677	0.003554839	0	1
3352	TJP3	ENST00000262968	p.P688L	c.2063	0.053289681	0	1
3352	TJP3	ENST00000262968	p.R718C	c.2152	0.053289681	4.23	1
3353	AHCY	ENST00000217426	p.Q365R	c.1094	0.070854338	0	1
3353	AHCY	ENST00000217426	p.E155K	c.463	0.070854338	3.819	1
3354	UBE2K	ENST00000261427	p.P82S	c.244	0.14629983	2.773	1
3354	UBE2K	ENST00000261427	p.Q126H	c.378	0.14629983	0	1
3355	CP	ENST00000264613	p.L808I	c.2422	0.009322935	0	1
3355	CP	ENST00000264613	p.F920L	c.2758	0.009322935	6.745	1
3356	DDX25	ENST00000263576	p.F344C	c.1031	0.045060277	0	1
3356	DDX25	ENST00000263576	p.I402L	c.1204	0.045060277	4.472	1
3357	MGAM	ENST00000475668	p.T389I	c.1166	0.08443588	0	1
3357	MGAM	ENST00000475668	p.F430C	c.1289	0.08443588	3.566	1
3358	UXS1	ENST00000283148	p.P177S	c.529	0.028938879	0	1
3358	UXS1	ENST00000283148	p.Y236C	c.707	0.014680043	6.09	1
3358	UXS1	ENST00000283148	p.T245I	c.734	0.021112067	6.132	1
3359	CDK7	ENST00000256443	p.A39V	c.116	0.048260946	0	1
3359	CDK7	ENST00000256443	p.D92N	c.274	0.048260946	4.373	1

3360 RTN4IP1	ENST00000369063	p.R363L	c.1088	0.135925623	2.937	1
3360 RTN4IP1	ENST00000369063	p.Q223E	c.667	0.140184462	0	1
3360 RTN4IP1	ENST00000369063	p.A249V	c.746	0.010859206	6.702	1
3361 SH3GL2	ENST00000380607	p.P303H	c.908	0.004546588	7.781	1
3361 SH3GL2	ENST00000380607	p.E308K	c.921_922	0.0046647	7.744	1
3361 SH3GL2	ENST00000380607	p.G310R	c.928	0.108217071	3.208	1
3361 SH3GL2	ENST00000380607	p.L332M	c.994	0.117428359	0	1
3362 PTPRG	ENST00000474889	p.F935V	c.2803	0.046134825	4.438	1
3362 PTPRG	ENST00000474889	p.H1059N	c.3175	0.046134825	0	1
3363 BCAR3	ENST00000370243	p.S688I	c.2063	0.006743122	0	1
3363 BCAR3	ENST00000370243	p.D728N	c.2182	0.002993398	8.384	1
3363 BCAR3	ENST00000370243	p.H743R	c.2228	0.003749724	8.059	1
3364 POLD2	ENST00000452185	p.L218R	c.653	0.001666457	9.229	1
3364 POLD2	ENST00000452185	p.S239F	c.716	0.02600621	5.265	1
3364 POLD2	ENST00000452185	p.R26L	c.77	0.027672668	0	1
3365 ELAVL1	ENST00000351593	p.T59A	c.175	0.056838016	0	1
3365 ELAVL1	ENST00000351593	p.R80W	c.238	0.056838016	4.137	1
3366 F13A1	ENST00000264870	p.I635N	c.1904	0.015777364	5.986	1
3366 F13A1	ENST00000264870	p.D669V	c.2006	0.015777364	0	1
3367 MAGI2	ENST00000354212	p.E468K	c.1402	0.556711344	2.847	1
3367 MAGI2	ENST00000354212	p.R508C	c.1522	1.17772576	0	1
3367 MAGI2	ENST00000354212	p.R508H	c.1523	1.17772576	0	1
3367 MAGI2	ENST00000354212	p.Y547N	c.1639	0.356223286	4.69	1
3368 FBN1	ENST00000316623	p.Q1253L	c.3758	0.021657342	5.529	1
3368 FBN1	ENST00000316623	p.D1285N	c.3853	0.021657342	0	1
3369 BDH2	ENST00000296424	p.L4F	c.10	0.102501596	0	1
3369 BDH2	ENST00000296424	p.L224V	c.670	0.013301365	6.346	1
3369 BDH2	ENST00000296424	p.R28S	c.84	0.008195229	6.931	1
3369 BDH2	ENST00000296424	p.G30V	c.89	0.083021405	3.608	1
3370 PLA2G4A	ENST00000367466	p.P586S	c.1756	1.056838016	0	1
3370 PLA2G4A	ENST00000367466	p.P586L	c.1757	1.056838016	0	1
3370 PLA2G4A	ENST00000367466	p.F612I	c.1834	0.113676031	4.137	1
3371 PADI4	ENST00000375448	p.I381M	c.1143	0.024853534	0	1
3371 PADI4	ENST00000375448	p.S161Y	c.482	0.010244547	6.609	1
3371 PADI4	ENST00000375448	p.A163S	c.487	0.014608987	6.097	1
3372 TTN	ENST00000589042	p.D60N	c.178	0.189268868	0	1
3372 TTN	ENST00000589042	p.A63T	c.187	0.037350218	9.919	1
3372 TTN	ENST00000589042	p.T7M	c.20	0.0699286	8.972	1
3372 TTN	ENST00000589042	p.E169D	c.507	0.160659736	2.681	1
3372 TTN	ENST00000589042	p.H28Y	c.82	0.134814523	5.044	1
3373 KIF2C	ENST00000372224	p.A346V	c.1037	0.021285282	0	1
3373 KIF2C	ENST00000372224	p.A563V	c.1688	0.021285282	5.554	1
3374 AIP	ENST00000279146	p.A86P	c.256	0.225000482	0	1
3374 AIP	ENST00000279146	p.I18V	c.52	0.225000482	2.152	1
3375 PADI4	ENST00000375448	p.Q358L	c.1073	0.167821563	3.575	1
3375 PADI4	ENST00000375448	p.A294V	c.881	1.083910781	0	2
3376 PITRM1	ENST00000380989	p.A559V	c.1676	0.018312848	5.771	1
3376 PITRM1	ENST00000380989	p.E955K	c.2863	0.03914564	0	1
3376 PITRM1	ENST00000380989	p.L127F	c.381	0.020832792	5.585	1

3377 SMG7	ENST00000507469	p.H401Y	c.1201	0.007011797	7.156	1
3377 SMG7	ENST00000507469	p.H403P	c.1208	0.098618355	3.342	1
3377 SMG7	ENST00000507469	p.G481W	c.1441	0.105630152	0	1
3378 BACE2	ENST00000330333	p.K104Q	c.310	0.077379015	0	1
3378 BACE2	ENST00000330333	p.T128S	c.382	0.070170089	3.833	1
3378 BACE2	ENST00000330333	p.R134S	c.402	0.007208926	7.116	1
3379 FCGR3A	ENST00000367969	p.R72K	c.215	0.007432174	7.072	1
3379 FCGR3A	ENST00000367969	p.D202N	c.604	0.006853231	7.189	1
3379 FCGR3A	ENST00000367969	p.N223S	c.668	0.014285405	0	1
3380 SEC23A	ENST00000307712	p.A40S	c.118	0.145188591	2.784	1
3380 SEC23A	ENST00000307712	p.R18Q	c.53	0.145188591	0	1
3381 OXSR1	ENST00000311806	p.I45M	c.135	0.005953691	0	1
3381 OXSR1	ENST00000311806	p.Q20P	c.59	0.005953691	7.392	1
3382 CUL1	ENST00000602748	p.E439K	c.1315	0.034386832	4.862	1
3382 CUL1	ENST00000602748	p.D483N	c.1447	0.034386832	0	1
3383 RPL4	ENST00000307961	p.Y122F	c.365	0.002100575	8.895	1
3383 RPL4	ENST00000307961	p.M284T	c.851	0.002100575	0	1
3384 LIMS1	ENST00000542845	p.E206D	c.618	0.088941466	3.491	1
3384 LIMS1	ENST00000542845	p.A232V	c.695	0.088941466	0	1
3385 PYCR1	ENST00000402252	p.V126I	c.376	1.013387218	7.223	1
3385 PYCR1	ENST00000402252	p.V126A	c.377	1.013387218	7.223	1
3385 PYCR1	ENST00000402252	p.T198M	c.593	0.017591228	6.829	1
3385 PYCR1	ENST00000402252	p.R293W	c.877	1.022182832	0	2
3386 ITGAX	ENST00000562522	p.I336F	c.1006	0.007299432	0	1
3386 ITGAX	ENST00000562522	p.R283H	c.848	0.007299432	7.098	1
3387 CD1A	ENST00000289429	p.S34C	c.101	0.003450449	0	1
3387 CD1A	ENST00000289429	p.R99C	c.295	0.003450449	8.179	1
3388 TXNIP	ENST00000369317	p.D155N	c.463	0.014023595	6.156	1
3388 TXNIP	ENST00000369317	p.R186K	c.557	0.014023595	0	1
3389 SNRNP200	ENST00000323853	p.P1296L	c.3887	0.061383725	4.026	1
3389 SNRNP200	ENST00000323853	p.K1498R	c.4493	0.061383725	0	1
3390 WDR77	ENST00000235090	p.R164Q	c.491	0.003728988	0	1
3390 WDR77	ENST00000235090	p.R191S	c.573	0.003728988	8.067	1
3391 TLR4	ENST00000355622	p.P346S	c.1036	1.016277241	6.941	1
3391 TLR4	ENST00000355622	p.P346L	c.1037	1.016277241	6.941	1
3391 TLR4	ENST00000355622	p.D325Y	c.973	1.016277241	0	2
3392 MICB	ENST00000252229	p.Q37R	c.110	0.020890633	5.581	1
3392 MICB	ENST00000252229	p.G108R	c.322	0.020890633	0	1
3393 F13A1	ENST00000264870	p.R547H	c.1640	0.307321515	0	1
3393 F13A1	ENST00000264870	p.T573M	c.1718	0.122503459	3.299	1
3393 F13A1	ENST00000264870	p.D575N	c.1723	0.100882114	3.602	1
3393 F13A1	ENST00000264870	p.V576M	c.1726	0.146058338	3.019	1
3394 MMP13	ENST00000260302	p.D429N	c.1285	0.038370314	5.414	1
3394 MMP13	ENST00000260302	p.Y440C	c.1319	0.01955932	5.676	1
3394 MMP13	ENST00000260302	p.R461C	c.1381	0.043013681	0	1
3395 GPC1	ENST00000420138	p.A159V	c.476	0.006425391	0	1
3395 GPC1	ENST00000420138	p.A188V	c.563	0.006425391	7.282	1
3396 TRIM24	ENST00000343526	p.C844Y	c.2531	0.010496121	6.574	1
3396 TRIM24	ENST00000343526	p.I866L	c.2596	0.010496121	0	1

3397 IFNAR2	ENST00000342136	p.K42N	c.126	0.095031582	9.735	1
3397 IFNAR2	ENST00000342136	p.F48Y	c.143	0.355910471	0	1
3397 IFNAR2	ENST00000342136	p.S133C	c.398	0.129168365	6.293	1
3397 IFNAR2	ENST00000342136	p.P155L	c.464	0.346345205	1.548	1
3398 ELAVL4	ENST00000371821	p.G143S	c.427	0.190610436	0	1
3398 ELAVL4	ENST00000371821	p.G179E	c.536	0.142418588	2.89	1
3398 ELAVL4	ENST00000371821	p.E208K	c.622	0.063221964	4.166	1
3399 C11orf54	ENST00000528099	p.G106W	c.316	0.012060197	0	1
3399 C11orf54	ENST00000528099	p.Y145D	c.433	0.003634569	8.104	1
3399 C11orf54	ENST00000528099	p.C149G	c.445	0.008425628	6.891	1
3400 LYZ	ENST00000261267	p.N57I	c.170	0.205185402	2.285	1
3400 LYZ	ENST00000261267	p.K19N	c.57	0.205185402	0	1
3401 C5	ENST00000223642	p.Q1112R	c.3335	0.019505165	0	1
3401 C5	ENST00000223642	p.I1169A	c.3506_3505	0.019505165	5.68	1
3402 MYOM1	ENST00000356443	p.S1155L	c.3464	0.006040987	7.371	1
3402 MYOM1	ENST00000356443	p.E1168Q	c.3502	0.006633564	7.236	1
3402 MYOM1	ENST00000356443	p.F1169L	c.3507	0.100064351	3.321	1
3402 MYOM1	ENST00000356443	p.T1193M	c.3578	0.112738903	0	1
3403 GIMAP1	ENST00000307194	p.E99K	c.295	0.006679705	7.226	1
3403 GIMAP1	ENST00000307194	p.R241Q	c.722	0.006679705	0	1
3404 EPHB2	ENST00000400191	p.V61L	c.181	0.007758535	7.01	1
3404 EPHB2	ENST00000400191	p.S93L	c.278	0.015773989	0	1
3404 EPHB2	ENST00000400191	p.V156I	c.466	0.008015454	6.963	1
3405 EP300	ENST00000263253	p.R1076C	c.3226	0.018607138	5.748	1
3405 EP300	ENST00000263253	p.T1101I	c.3302	0.018607138	0	1
3406 DCC	ENST00000442544	p.T882I	c.2645	0.078508899	3.671	1
3406 DCC	ENST00000442544	p.T923K	c.2768	0.078508899	0	1
3407 CYP1A1	ENST00000567032	p.H388R	c.1163	0.091441951	3.451	1
3407 CYP1A1	ENST00000567032	p.R106Q	c.317	0.091441951	0	1
3408 FOLH1	ENST00000256999	p.G364R	c.1090	0.017457612	0	1
3408 FOLH1	ENST00000256999	p.D106N	c.316	0.017457612	5.84	1
3409 PAPOLG	ENST00000238714	p.R406W	c.1216	0.010301513	0	1
3409 PAPOLG	ENST00000238714	p.S26C	c.76	0.010301513	6.601	1
3410 PTPRE	ENST00000419012	p.H334Y	c.1000	0.04670446	0	1
3410 PTPRE	ENST00000419012	p.M377I	c.1131	0.001831194	9.093	1
3410 PTPRE	ENST00000419012	p.P210L	c.629	0.044873266	4.478	1
3411 MACROD2	ENST00000310348	p.I87V	c.259	0.034101996	5.874	1
3411 MACROD2	ENST00000310348	p.N89S	c.266	0.076045147	4.717	1
3411 MACROD2	ENST00000310348	p.P183S	c.547	1.078237119	0	1
3411 MACROD2	ENST00000310348	p.P183L	c.548	1.078237119	0	1
3411 MACROD2	ENST00000310348	p.Y232S	c.695	0.080433745	5.432	1
3412 RPL17	ENST00000579408	p.R42Q	c.125	0.015810206	5.983	1
3412 RPL17	ENST00000579408	p.D110H	c.328	0.015810206	0	1
3413 SERPINA5	ENST00000554866	p.H108D	c.322	0.17206135	2.555	1
3413 SERPINA5	ENST00000554866	p.N119I	c.356	0.013045636	6.487	1
3413 SERPINA5	ENST00000554866	p.Y153H	c.457	0.181312815	0	1
3414 TLE1	ENST00000376499	p.S625C	c.1874	0.008292369	0	1
3414 TLE1	ENST00000376499	p.V686E	c.2057	0.008292369	6.914	1
3415 REG3A	ENST00000305165	p.S78F	c.233	0.737062395	2.079	1

3415 REG3A	ENST00000305165	p.S124I	c.371	0.388532413	4.002	1
3415 REG3A	ENST00000305165	p.S125C	c.373	1.299091824	0	1
3415 REG3A	ENST00000305165	p.S125I	c.374	1.299091824	0	1
3416 OGT	ENST00000373719	p.R117C	c.349	1.03465002	0	1
3416 OGT	ENST00000373719	p.R117H	c.350	1.03465002	0	1
3416 OGT	ENST00000373719	p.Y146C	c.437	0.06930004	4.851	1
3417 PIK3R1	ENST00000274335	p.G376R	c.1126	7.072293011	0	8
3417 PIK3R1	ENST00000274335	p.452in_frame_insY	c.1353_1354	0.578344092	3.79	1
3418 UBE2D2	ENST00000398733	p.H55R	c.164	0.143895637	0	1
3418 UBE2D2	ENST00000398733	p.D29N	c.85	0.040500207	4.773	1
3418 UBE2D2	ENST00000398733	p.F31L	c.93	0.111245929	3.22	1
3419 TLR8	ENST00000311912	p.I188V	c.562	0.166790283	2.602	1
3419 TLR8	ENST00000311912	p.N220H	c.658	0.177340008	0	1
3419 TLR8	ENST00000311912	p.L242I	c.724	0.014710303	6.307	1
3420 FOLH1	ENST00000256999	p.E425V	c.1274	0.056586691	4.965	1
3420 FOLH1	ENST00000256999	p.A163S	c.487	0.131667035	3.223	1
3420 FOLH1	ENST00000256999	p.G256R	c.766	0.139115145	0	1
3421 NKTR	ENST00000232978	p.A106V	c.317	0.014864348	0	1
3421 NKTR	ENST00000232978	p.V143F	c.427	0.014864348	6.072	1
3422 SULT4A1	ENST00000249130	p.L60M	c.178	0.014843756	6.074	1
3422 SULT4A1	ENST00000249130	p.D137N	c.409_408	0.009875024	6.662	1
3422 SULT4A1	ENST00000249130	p.Q144L	c.431	0.009093176	6.781	1
3423 BTN3A3	ENST00000244519	p.H53P	c.158	0.073457069	3.889	1
3423 BTN3A3	ENST00000244519	p.F133L	c.399	0.021626076	5.716	1
3423 BTN3A3	ENST00000244519	p.E135K	c.403	0.075243915	3.852	1
3423 BTN3A3	ENST00000244519	p.S32C	c.95	0.155775026	0	1
3424 SYT13	ENST00000020926	p.H252Q	c.756	0.095589767	0	1
3424 SYT13	ENST00000020926	p.P284S	c.850	0.095589767	3.387	1
3425 LTF	ENST00000231751	p.S540N	c.1619	0.047530586	4.395	1
3425 LTF	ENST00000231751	p.A550V	c.1649	0.010089511	6.631	1
3425 LTF	ENST00000231751	p.L660F	c.1978	0.057620097	0	1
3426 BIRC2	ENST00000227758	p.E357Q	c.1069	0.183273795	0	1
3426 BIRC2	ENST00000227758	p.P331Q	c.992	0.029390615	5.3	1
3426 BIRC2	ENST00000227758	p.R332G	c.994	0.161898635	2.663	1
3427 CTSB	ENST00000353047	p.C105R	c.313	0.014874655	6.071	1
3427 CTSB	ENST00000353047	p.C198W	c.594	0.014874655	0	1
3428 EIF2AK2	ENST00000395127	p.W377C	c.1131	0.006805892	7.199	1
3428 EIF2AK2	ENST00000395127	p.V428I	c.1282	0.006805892	0	1
3429 BCKDHA	ENST00000595085	p.T245M	c.734	0.01025165	0	1
3429 BCKDHA	ENST00000595085	p.A280T	c.838	0.01025165	6.608	1
3430 STRADA	ENST00000336174	p.K77R	c.230	0.004239177	0	1
3430 STRADA	ENST00000336174	p.D157H	c.469	0.004239177	7.882	1
3431 RTN4IP1	ENST00000369063	p.Q61H	c.183	0.009840859	6.667	1
3431 RTN4IP1	ENST00000369063	p.G125S	c.373	0.004233305	7.884	1
3431 RTN4IP1	ENST00000369063	p.E157D	c.471	0.014074164	0	1
3432 IL3RA	ENST00000331035	p.D55G	c.164	0.001256825	9.636	1
3432 IL3RA	ENST00000331035	p.M32I	c.96	0.001256825	0	1
3433 MYO10	ENST00000513610	p.P1548L	c.4643	0.010180837	6.618	1
3433 MYO10	ENST00000513610	p.R1600Q	c.4799	0.018718163	0	1

3433	MYO10	ENST00000513610	p.L1640M	c.4918	0.008537326	6.872	1
3434	GLTPD1	ENST00000343938	p.R196S	c.586	0.034746224	0	1
3434	GLTPD1	ENST00000343938	p.D22N	c.64	0.034746224	4.847	1
3435	CDKN2A	ENST00000361570	p.L127V	c.379	0.045310839	0	1
3435	CDKN2A	ENST00000361570	p.GAAGR157in_frame_del	c.479_465	0.045310839	4.464	1
3436	AZU1	ENST00000233997	p.F40L	c.120	0.070024326	0	1
3436	AZU1	ENST00000233997	p.V206I	c.616	0.070024326	3.836	1
3437	RUVBL2	ENST00000595090	p.G89S	c.265	0.075154328	3.734	1
3437	RUVBL2	ENST00000595090	p.L94M	c.280	0.007213924	7.115	1
3437	RUVBL2	ENST00000595090	p.G30E	c.89	0.082368252	0	1
3438	PYGL	ENST00000216392	p.N827D	c.2479	0.025260027	0	1
3438	PYGL	ENST00000216392	p.D332E	c.996	0.025260027	5.307	1
3439	CA2	ENST00000285379	p.G8C	c.22	0.025137762	5.314	1
3439	CA2	ENST00000285379	p.E186K	c.556	0.025137762	0	1
3440	XIAP	ENST00000371199	p.I149M	c.447	0.012568881	6.314	1
3440	XIAP	ENST00000371199	p.R233Q	c.698	0.012568881	0	1
3441	C6	ENST00000263413	p.P480S	c.1438	0.063471068	0	1
3441	C6	ENST00000263413	p.P188L	c.563	0.061658955	4.184	1
3441	C6	ENST00000263413	p.M320T	c.959	0.052741049	6.886	1
3442	ALDH4A1	ENST00000290597	p.V489I	c.1465	0.024231038	5.367	1
3442	ALDH4A1	ENST00000290597	p.V490A	c.1469	0.008680537	6.848	1
3442	ALDH4A1	ENST00000290597	p.S326L	c.977	0.032911575	0	1
3443	TJP1	ENST00000356107	p.R96W	c.286	0.133239844	2.963	1
3443	TJP1	ENST00000356107	p.K97N	c.291	0.04392187	4.683	1
3443	TJP1	ENST00000356107	p.R28M	c.83	0.167176562	0	1
3444	NOTCH1	ENST00000277541	p.N1484I	c.4451	0.037972854	4.841	1
3444	NOTCH1	ENST00000277541	p.W1487C	c.4461	0.091408926	3.501	1
3444	NOTCH1	ENST00000277541	p.A1705V	c.5114	0.123218133	0	1
3445	ALK	ENST00000389048	p.R1253T	c.3758	0.017301009	5.853	1
3445	ALK	ENST00000389048	p.L1318M	c.3952	0.017301009	0	1
3446	MTPAP	ENST00000358107	p.G579V	c.1736	0.190514099	3.472	1
3446	MTPAP	ENST00000358107	p.R633Q	c.1898	1.090120554	0	2
3447	ENOSF1	ENST00000340116	p.P361L	c.1082	0.09307736	3.516	1
3447	ENOSF1	ENST00000340116	p.V391A	c.1172	0.157644224	0	1
3447	ENOSF1	ENST00000340116	p.W295G	c.883	0.154368455	3.948	1
3448	NEIL1	ENST00000355059	p.R90L	c.269	0.070756181	4.821	1
3448	NEIL1	ENST00000355059	p.E28K	c.82	1.035378091	0	1
3448	NEIL1	ENST00000355059	p.E28D	c.84	1.035378091	0	1
3449	TLR5	ENST00000366881	p.N248D	c.742	1.022925209	0	2
3449	TLR5	ENST00000366881	p.P277H	c.830	0.00579892	8.43	1
3449	TLR5	ENST00000366881	p.A283V	c.848	0.05057676	5.642	1
3450	ELAVL4	ENST00000371821	p.L139F	c.415	0.144044603	3.831	1
3450	ELAVL4	ENST00000371821	p.E192K	c.574	0.121663754	3.137	1
3450	ELAVL4	ENST00000371821	p.F214V	c.640	0.18856632	0	1
3450	ELAVL4	ENST00000371821	p.A215S	c.643	0.070412303	7.757	1
3451	CYCS	ENST00000409409	p.L36F	c.106	0.03413448	5.103	1
3451	CYCS	ENST00000409409	p.R92M	c.275	0.030068018	7.816	1
3451	CYCS	ENST00000409409	p.D94A	c.281	0.206673011	0	1
3451	CYCS	ENST00000409409	p.I10S	c.29	0.203806854	2.53	1

3452	AGO1	ENST00000373204	p.P338S	c.1012	0.010828671	0	1
3452	AGO1	ENST00000373204	p.L316F	c.945_946	0.010828671	6.529	1
3453	SPON2	ENST00000290902	p.S71L	c.212	0.106505512	0	1
3453	SPON2	ENST00000290902	p.F97I	c.289	0.106505512	3.231	1
3454	NEIL1	ENST00000355059	p.A153V	c.458	0.086613298	3.573	1
3454	NEIL1	ENST00000355059	p.R159Q	c.476	0.033363187	5.022	1
3454	NEIL1	ENST00000355059	p.R195C	c.583	0.114804263	0	1
3455	MRE11A	ENST00000407439	p.Q221K	c.661	0.00465501	7.747	1
3455	MRE11A	ENST00000407439	p.D23Y	c.67	0.00465501	0	1
3456	DFNB31	ENST00000362057	p.A376T	c.1126	0.112812591	0	1
3456	DFNB31	ENST00000362057	p.G410S	c.1228	0.112812591	3.148	1
3457	EHMT1	ENST00000460843	p.E1170D	c.3510	0.028716028	0	1
3457	EHMT1	ENST00000460843	p.E1233K	c.3697	0.028716028	5.122	1
3458	PTPRM	ENST00000400060	p.H951N	c.2851	0.011469927	6.446	1
3458	PTPRM	ENST00000400060	p.R1145W	c.3433	0.011469927	0	1
3459	CD38	ENST00000226279	p.V117I	c.349	1.01165425	0	2
3459	CD38	ENST00000226279	p.S264L	c.791	0.113195805	6.423	1
3460	DDC	ENST00000444124	p.H434L	c.1301	0.010561803	0	1
3460	DDC	ENST00000444124	p.Y79F	c.236	0.010561803	6.565	1
3461	CYP2R1	ENST00000334636	p.L449I	c.1345	0.006721505	0	1
3461	CYP2R1	ENST00000334636	p.R145P	c.434	0.006721505	7.217	1
3462	PRKCB	ENST00000303531	p.G478E	c.1433	0.139467415	3.842	1
3462	PRKCB	ENST00000303531	p.R610H	c.1829	1.069733708	0	2
3463	SSRP1	ENST00000278412	p.R203W	c.607	0.021021363	0	1
3463	SSRP1	ENST00000278412	p.L310P	c.929	0.021021363	5.572	1
3464	HIST1H2BA	ENST00000274764	p.R74C	c.220	0.001277908	0	1
3464	HIST1H2BA	ENST00000274764	p.R101C	c.301	0.001277908	9.612	1
3465	RET	ENST00000355710	p.R205G	c.613	0.040023746	4.643	1
3465	RET	ENST00000355710	p.M255I	c.765	0.040023746	0	1
3466	FAM105B	ENST00000284274	p.A138T	c.412	0.012770509	6.427	1
3466	FAM105B	ENST00000284274	p.R299C	c.895	0.099972166	3.339	1
3466	FAM105B	ENST00000284274	p.P328L	c.983	0.110445622	0	1
3467	FDPS	ENST00000356657	p.S88F	c.263	0.098847135	3.651	1
3467	FDPS	ENST00000356657	p.R150Q	c.449	0.148246235	3.014	1
3467	FDPS	ENST00000356657	p.T153N	c.458	0.141916428	3.084	1
3467	FDPS	ENST00000356657	p.Y212C	c.635	0.321327483	0	1
3468	ASF1A	ENST00000229595	p.I42T	c.125	0.00915008	0	1
3468	ASF1A	ENST00000229595	p.V109F	c.325	0.00915008	6.772	1
3469	G6PD	ENST00000369620	p.G174E	c.521	0.20858693	0	1
3469	G6PD	ENST00000369620	p.Y249C	c.746	0.011304368	6.729	1
3469	G6PD	ENST00000369620	p.D251N	c.751	0.201037487	2.328	1
3470	VPS33A	ENST00000267199	p.N353D	c.1057	0.009854511	6.665	1
3470	VPS33A	ENST00000267199	p.L295F	c.883	0.009854511	0	1
3471	PTPRF	ENST00000359947	p.A1603E	c.4808	0.00830963	6.911	1
3471	PTPRF	ENST00000359947	p.R1878C	c.5632	0.00830963	0	1
3472	ALDH18A1	ENST00000371224	p.E581K	c.1741	0.042394911	0	1
3472	ALDH18A1	ENST00000371224	p.G692D	c.2075	0.029400816	5.088	1
3472	ALDH18A1	ENST00000371224	p.S694F	c.2081	0.012994095	6.266	1
3473	ERBB4	ENST00000342788	p.R196C	c.586	0.017253107	5.857	1

3473 ERBB4	ENST00000342788	p.G319E	c.956	0.017253107	0	1
3474 CACYBP	ENST00000367681	p.M84I	c.252	0.040358042	0	1
3474 CACYBP	ENST00000367681	p.I109T	c.326	0.040358042	4.631	1
3475 BLM	ENST00000355112	p.F1087C	c.3260	0.012327294	6.342	1
3475 BLM	ENST00000355112	p.Q1127H	c.3381	0.012327294	0	1
3476 LIG4	ENST00000356922	p.D868Y	c.2602	0.009712107	6.686	1
3476 LIG4	ENST00000356922	p.E891K	c.2671	0.009712107	0	1
3477 HCN4	ENST00000261917	p.V534M	c.1600	0.082985322	3.591	1
3477 HCN4	ENST00000261917	p.E572K	c.1714	0.082985322	0	1
3478 EXOSC10	ENST00000376936	p.R438W	c.1312	0.042130242	0	1
3478 EXOSC10	ENST00000376936	p.S332Y	c.995	0.042130242	4.569	1
3479 CPB1	ENST00000282957	p.E150D	c.450	0.064569649	0	1
3479 CPB1	ENST00000282957	p.R237H	c.710	0.064569649	3.953	1
3480 WDR77	ENST00000235090	p.P64L	c.191	0.002725998	8.519	1
3480 WDR77	ENST00000235090	p.L312V	c.934	0.002725998	0	1
3481 TFRC	ENST00000360110	p.S419F	c.1257_1256	0.145995924	0	1
3481 TFRC	ENST00000360110	p.R155H	c.464	0.145995924	2.776	1
3482 SULT1A1	ENST00000395609	p.T51S	c.151	0.030606884	0	1
3482 SULT1A1	ENST00000395609	p.T107A	c.319	0.030606884	5.03	1
3483 F2	ENST00000311907	p.Q130K	c.388	0.058271785	4.26	1
3483 F2	ENST00000311907	p.R133M	c.398	0.122546344	3.102	1
3483 F2	ENST00000311907	p.E154D	c.462	0.168660549	0	1
3484 GAD2	ENST00000259271	p.A443T	c.1327	0.059746582	4.065	1
3484 GAD2	ENST00000259271	p.Y249H	c.745	0.059746582	0	1
3485 VAV3	ENST00000527011	p.W10R	c.28	0.155286035	0	1
3485 VAV3	ENST00000527011	p.A121V	c.362	0.155286035	2.687	1
3486 USP21	ENST00000289865	p.R536C	c.1606	0.007562086	7.047	1
3486 USP21	ENST00000289865	p.R215Q	c.644	0.019208261	0	1
3486 USP21	ENST00000289865	p.T281S	c.841	0.011646175	6.424	1
3487 F11R	ENST00000368026	p.A143V	c.428	0.00538278	0	1
3487 F11R	ENST00000368026	p.P201S	c.601	0.002587904	8.594	1
3487 F11R	ENST00000368026	p.R228H	c.683	0.002794876	8.483	1
3488 CRMP1	ENST00000324989	p.R352W	c.1054_1053	0.140349488	2.941	1
3488 CRMP1	ENST00000324989	p.D292N	c.874	0.207592322	0	1
3488 CRMP1	ENST00000324989	p.D317Y	c.949	0.087505952	3.692	1
3489 XPO1	ENST00000404992	p.E655D	c.1965	0.031220217	5.072	1
3489 XPO1	ENST00000404992	p.W665R	c.1993	0.051662608	4.317	1
3489 XPO1	ENST00000404992	p.R712K	c.2135	0.079899783	0	1
3490 MAAA	ENST00000281317	p.A304V	c.911	1.014629254	7.095	2
3490 MAAA	ENST00000281317	p.R326C	c.976	1.014629254	0	2
3491 ACE	ENST00000290866	p.N74T	c.221	0.016447362	0	1
3491 ACE	ENST00000290866	p.M147T	c.440	0.016447362	5.926	1
3492 PGK1	ENST00000373316	p.V284L	c.850	0.014229216	6.135	1
3492 PGK1	ENST00000373316	p.S321N	c.962	0.014229216	0	1
3493 GIMAP7	ENST00000313543	p.R216W	c.646	0.005601388	0	1
3493 GIMAP7	ENST00000313543	p.E266K	c.796	0.005601388	7.48	1
3494 CD180	ENST00000256447	p.N41H	c.121	0.003460029	8.175	1
3494 CD180	ENST00000256447	p.F64I	c.190	0.003460029	0	1
3495 SAMHD1	ENST00000262878	p.Y173C	c.518	0.046387831	4.461	1

3495 SAMHD1	ENST00000262878	p.V179F	c.535	0.022625009	5.53	1
3495 SAMHD1	ENST00000262878	p.Q200R	c.599	0.067047493	0	1
3496 LRRC4	ENST00000249363	p.A358T	c.1072	0.00919055	7.497	1
3496 LRRC4	ENST00000249363	p.P359L	c.1076	0.010964623	6.511	1
3496 LRRC4	ENST00000249363	p.G420W	c.1258	0.016500394	0	1
3497 IL10	ENST00000423557	p.M86I	c.258	0.006275734	0	1
3497 IL10	ENST00000423557	p.Y167H	c.499	0.006275734	7.316	1
3498 PRKCG	ENST00000540413	p.M186T	c.557	0.210897501	3.295	1
3498 PRKCG	ENST00000540413	p.D254N	c.760	1.101884042	0	2
3499 HUWE1	ENST00000342160	p.R3998H	c.11993	0.041728344	4.621	1
3499 HUWE1	ENST00000342160	p.R4002H	c.12005	0.027901168	5.221	1
3499 HUWE1	ENST00000342160	p.S4287Y	c.12860	0.067450334	0	1
3500 GAD2	ENST00000259271	p.N388I	c.1163	0.088399299	3.562	1
3500 GAD2	ENST00000259271	p.V409L	c.1225	0.128711585	0	1
3500 GAD2	ENST00000259271	p.R225K	c.674	0.047770262	4.505	1
3501 MBTD1	ENST00000415868	p.D420N	c.1258	0.105769825	0	1
3501 MBTD1	ENST00000415868	p.P456L	c.1367	0.105769825	3.241	1
3502 CA6	ENST00000377436	p.A41T	c.121	0.021095099	5.848	1
3502 CA6	ENST00000377436	p.S48L	c.143	0.143514503	2.982	1
3502 CA6	ENST00000377436	p.R132T	c.395	0.034032376	5.158	1
3502 CA6	ENST00000377436	p.R264H	c.791	0.260449724	0	1
3502 CA6	ENST00000377436	p.E32K	c.94	0.10372943	3.498	1
3503 GRB2	ENST00000316804	p.K117R	c.350	0.031824346	5.042	1
3503 GRB2	ENST00000316804	p.S127Y	c.380	0.049933062	4.367	1
3503 GRB2	ENST00000316804	p.E130D	c.390	0.017445515	5.841	1
3503 GRB2	ENST00000316804	p.R179L	c.536	0.09626095	0	1
3504 CST7	ENST00000376835	p.I64M	c.192	0.065698307	3.928	1
3504 CST7	ENST00000376835	p.L101P	c.302	0.065698307	0	1
3506 ESRRG	ENST00000360012	p.K420R	c.1259	0.088818253	3.493	1
3506 ESRRG	ENST00000360012	p.I239T	c.716	0.088818253	0	1
3507 CHP2	ENST00000300113	p.R48C	c.142	0.133440026	0	1
3507 CHP2	ENST00000300113	p.G74E	c.221	0.037818342	4.861	1
3507 CHP2	ENST00000300113	p.S75N	c.224	0.102437018	3.336	1
3508 FAS	ENST00000355740	p.G88E	c.263	0.063320652	7.523	1
3508 FAS	ENST00000355740	p.N124H	c.370	1.0054369	0	1
3508 FAS	ENST00000355740	p.N124S	c.371	1.0054369	0	1
3509 SCARB2	ENST00000264896	p.S236P	c.706	0.001805983	0	1
3509 SCARB2	ENST00000264896	p.Y267C	c.800	0.001805983	9.113	1
3510 EIF4G1	ENST00000382330	p.E1258Q	c.3772	1.006434305	0	1
3510 EIF4G1	ENST00000382330	p.E1258D	c.3774	1.006434305	0	1
3510 EIF4G1	ENST00000382330	p.T1293M	c.3878	0.021569056	7.28	1
3511 LIG4	ENST00000356922	p.E76D	c.228	0.015799251	0	1
3511 LIG4	ENST00000356922	p.D153Y	c.457	0.015799251	5.984	1
3512 GRM3	ENST00000361669	p.E203Q	c.607	0.275547134	5.006	1
3512 GRM3	ENST00000361669	p.R206C	c.616	1.177015068	0	2
3512 GRM3	ENST00000361669	p.R237P	c.710	0.50509605	2.777	1
3513 LINGO1	ENST00000355300	p.A277P	c.829	0.031995216	0	1
3513 LINGO1	ENST00000355300	p.P298L	c.893	0.031995216	4.966	1
3514 PDGFA	ENST00000354513	p.R107W	c.319	0.003871209	8.013	1

3514 PDGFA	ENST00000354513	p.V167I	c.499	0.003871209	0	1
3515 TFRC	ENST00000360110	p.N584S	c.1751	0.008466609	6.884	1
3515 TFRC	ENST00000360110	p.T143I	c.428	0.008466609	0	1
3516 PTGS2	ENST00000367468	p.A137S	c.409	0.062283766	0	1
3516 PTGS2	ENST00000367468	p.R29Q	c.86	0.062283766	4.005	1
3517 CD1D	ENST00000368171	p.E52K	c.154	0.040582456	0	1
3517 CD1D	ENST00000368171	p.E259D	c.777	0.040582456	4.623	1
3518 ETS2	ENST00000360214	p.W106C	c.318	0.087540823	0	1
3518 ETS2	ENST00000360214	p.M166I	c.498	0.082698215	3.596	1
3518 ETS2	ENST00000360214	p.I167F	c.499	0.004842608	7.69	1
3519 RWDD3	ENST00000370202	p.V34L	c.100	0.164367845	2.605	1
3519 RWDD3	ENST00000370202	p.H56R	c.167	0.164367845	0	1
3520 FGFR4	ENST00000502906	p.E44D	c.132	0.002238891	8.803	1
3520 FGFR4	ENST00000502906	p.K157N	c.471	0.003520347	0	1
3520 FGFR4	ENST00000502906	p.R219C	c.655	0.001281456	9.608	1
3521 CECR1	ENST00000262607	p.K473I	c.1418	0.040498155	4.626	1
3521 CECR1	ENST00000262607	p.K498N	c.1494	0.040498155	0	1
3522 CFH	ENST00000367429	p.D510H	c.1528	0.054939973	4.186	1
3522 CFH	ENST00000367429	p.G557V	c.1670	0.054939973	0	1
3523 ACPP	ENST00000351273	p.R43W	c.127	2.04473197	0	3
3523 ACPP	ENST00000351273	p.D211N	c.631	0.097798931	4.939	1
3523 ACPP	ENST00000351273	p.H314Y	c.940	0.036396979	6.365	1
3524 SNRNP200	ENST00000323853	p.P1564S	c.4690	0.01074642	0	1
3524 SNRNP200	ENST00000323853	p.Y1676H	c.5026	0.01074642	6.54	1
3525 CPSF3	ENST00000238112	p.I229V	c.685	0.022608358	0	1
3525 CPSF3	ENST00000238112	p.P322S	c.964	0.022608358	5.467	1
3526 ENO3	ENST00000518175	p.I422S	c.1265_1266	0.020011873	5.643	1
3526 ENO3	ENST00000518175	p.P146L	c.437	0.020011873	0	1
3527 PTPN18	ENST00000175756	p.N56D	c.166	0.02919773	5.098	1
3527 PTPN18	ENST00000175756	p.D85N	c.253	0.02919773	0	1
3528 ASPA	ENST00000263080	p.E40D	c.120	0.017735565	9.502	1
3528 ASPA	ENST00000263080	p.L115I	c.343	0.103934908	0	1
3528 ASPA	ENST00000263080	p.I199S	c.596	0.10221303	3.568	1
3528 ASPA	ENST00000263080	p.H21D	c.61	0.019774556	5.777	1
3529 PDE10A	ENST00000539869	p.R430K	c.1289	0.033702513	0	1
3529 PDE10A	ENST00000539869	p.A276V	c.827	0.033702513	4.891	1
3530 EPHA7	ENST00000369303	p.R724G	c.2170	1.184771313	0	1
3530 EPHA7	ENST00000369303	p.R724K	c.2171	1.184771313	0	1
3530 EPHA7	ENST00000369303	p.G833E	c.2498	0.303840032	2.744	1
3530 EPHA7	ENST00000369303	p.E834K	c.2500	0.076301065	4.816	1
3531 GART	ENST00000381831	p.P211L	c.632	0.05366034	4.22	1
3531 GART	ENST00000381831	p.L255I	c.763	0.05366034	0	1
3532 C8A	ENST00000361249	p.E104K	c.310	0.016064279	5.96	1
3532 C8A	ENST00000361249	p.S125C	c.374	0.016064279	0	1
3533 PSPH	ENST00000437355	p.L62V	c.184	1.01167851	0	2
3533 PSPH	ENST00000437355	p.E154K	c.460	0.02335702	6.42	1
3535 GEM	ENST00000297596	p.A96S	c.286	0.069616203	3.865	1
3535 GEM	ENST00000297596	p.R116Q	c.347	0.015343416	6.122	1
3535 GEM	ENST00000297596	p.R197W	c.589	0.082988815	0	1

3536	TLR5	ENST00000366881	p.F699L	c.2097	0.01801629	0	1
3536	TLR5	ENST00000366881	p.R732I	c.2195	0.009651708	6.695	1
3536	TLR5	ENST00000366881	p.L763F	c.2287	0.003991094	7.969	1
3536	TLR5	ENST00000366881	p.V792A	c.2375	0.004373488	7.837	1
3538	PTK2	ENST00000519419	p.H123Y	c.367	0.142776241	3.074	1
3538	PTK2	ENST00000519419	p.Y127H	c.379	0.046390481	5.509	1
3538	PTK2	ENST00000519419	p.E183K	c.547	0.023961927	8.619	1
3538	PTK2	ENST00000519419	p.D184N	c.550	0.143253161	0	1
3539	NTRK1	ENST00000524377	p.R649W	c.1945	1.24511037	0	1
3539	NTRK1	ENST00000524377	p.R649L	c.1946	1.24511037	0	1
3539	NTRK1	ENST00000524377	p.R702C	c.2104	1.110221085	4.379	2
3539	NTRK1	ENST00000524377	p.D709N	c.2125	0.262090225	3.017	1
3539	NTRK1	ENST00000524377	p.S712R	c.2136	0.056497732	5.296	1
3540	ATG4A	ENST00000372232	p.R80H	c.239	0.026846032	0	1
3540	ATG4A	ENST00000372232	p.A264E	c.791	0.012482061	6.324	1
3540	ATG4A	ENST00000372232	p.Y265H	c.793	0.005802941	7.429	1
3540	ATG4A	ENST00000372232	p.H281R	c.842	0.008561029	6.868	1
3541	STK3	ENST00000523601	p.R206H	c.617	1.243068958	0	2
3541	STK3	ENST00000523601	p.T208I	c.623	0.007668389	9.644	1
3541	STK3	ENST00000523601	p.P254A	c.760	0.488806803	2.048	1
3542	CYP7A1	ENST00000301645	p.A366V	c.1098_1097	0.010294375	6.602	1
3542	CYP7A1	ENST00000301645	p.R382Q	c.1145	0.041091961	4.605	1
3542	CYP7A1	ENST00000301645	p.H77N	c.229	0.051386336	0	1
3543	IFIH1	ENST00000263642	p.R618Q	c.1853	0.027318082	5.194	1
3543	IFIH1	ENST00000263642	p.R705I	c.2114	0.027318082	0	1
3544	MARK1	ENST00000366917	p.W755R	c.2263	1.0036981	0	2
3544	MARK1	ENST00000366917	p.N784K	c.2352	0.013534267	8.079	1
3545	SNAI1	ENST00000244050	p.R243W	c.727	1.001999701	0	1
3545	SNAI1	ENST00000244050	p.R243Q	c.728	1.001999701	0	1
3545	SNAI1	ENST00000244050	p.R264H	c.791	0.003999402	8.966	1
3546	MERTK	ENST00000295408	p.Y676C	c.2027	0.227983291	0	1
3546	MERTK	ENST00000295408	p.D733Y	c.2197	0.227983291	2.133	1
3547	NSMCE1	ENST00000361439	p.G74E	c.221	0.007758535	7.01	1
3547	NSMCE1	ENST00000361439	p.E30K	c.88	0.007758535	0	1
3548	AGXT	ENST00000307503	p.E59K	c.175	0.025898278	5.271	1
3548	AGXT	ENST00000307503	p.K61E	c.181	0.010230355	6.611	1
3548	AGXT	ENST00000307503	p.Q65L	c.194	0.012335842	6.341	1
3548	AGXT	ENST00000307503	p.P11A	c.31	0.048464475	0	1
3549	POFUT2	ENST00000349485	p.H91N	c.271	0.045975211	4.443	1
3549	POFUT2	ENST00000349485	p.R176G	c.526	0.045975211	0	1
3550	PILRA	ENST00000198536	p.E60D	c.180	0.100970097	0	1
3550	PILRA	ENST00000198536	p.R132W	c.394	0.100970097	3.308	1
3551	CYTIP	ENST00000264192	p.D84N	c.250	0.119741902	3.062	1
3551	CYTIP	ENST00000264192	p.N156S	c.467	0.119741902	0	1
3552	ADSSL1	ENST00000332972	p.R347C	c.1039	0.148987328	0	1
3552	ADSSL1	ENST00000332972	p.R381C	c.1141	0.138041085	2.875	1
3552	ADSSL1	ENST00000332972	p.L303F	c.907	0.01440148	6.302	1
3553	AOC3	ENST00000308423	p.S364R	c.1092	0.013878544	6.171	1
3553	AOC3	ENST00000308423	p.D529V	c.1586	0.013878544	0	1

3554	MMP2	ENST00000570308	p.F277V	c.829	0.17210889	0	1
3554	MMP2	ENST00000570308	p.T301A	c.901	0.032283561	5.147	1
3554	MMP2	ENST00000570308	p.T302K	c.905	0.147947044	2.797	1
3555	GSK3B	ENST00000316626	p.A83T	c.247	0.00934882	0	1
3555	GSK3B	ENST00000316626	p.R111Q	c.332	0.00934882	6.741	1
3556	PKP1	ENST00000263946	p.R441C	c.1321	0.072392502	3.815	1
3556	PKP1	ENST00000263946	p.R445H	c.1334	0.020221408	5.727	1
3556	PKP1	ENST00000263946	p.E534Q	c.1600	0.089931027	0	1
3557	PIM1	ENST00000373509	p.S115R	c.345	0.130787095	4.053	1
3557	PIM1	ENST00000373509	p.I119L	c.355	0.270100925	3.449	1
3557	PIM1	ENST00000373509	p.H157P	c.470	1.231143848	0	2
3557	PIM1	ENST00000373509	p.L182P	c.545	0.244884808	3.656	1
3558	THBS1	ENST00000260356	p.S971F	c.2912	0.088449635	3.499	1
3558	THBS1	ENST00000260356	p.R1077W	c.3229	0.088449635	0	1
3559	NCKAP1	ENST00000360982	p.S382F	c.1145	0.0508362	0	1
3559	NCKAP1	ENST00000360982	p.R223G	c.667	0.0508362	4.298	1
3560	LIG4	ENST00000356922	p.S656C	c.1967	0.038822923	0	1
3560	LIG4	ENST00000356922	p.G687C	c.2059	0.015303442	6.03	1
3560	LIG4	ENST00000356922	p.S734R	c.2202	0.02351948	5.41	1
3561	SNX3	ENST00000230085	p.R45L	c.134	0.013926726	6.166	1
3561	SNX3	ENST00000230085	p.E148K	c.442	0.013926726	0	1
3562	OPRK1	ENST00000265572	p.P59L	c.176	0.116145084	3.106	1
3562	OPRK1	ENST00000265572	p.M121I	c.363	0.116145084	0	1
3563	CCL2	ENST00000225831	p.C35Y	c.104	0.207990582	0	1
3563	CCL2	ENST00000225831	p.P60T	c.178	0.124629326	3.134	1
3563	CCL2	ENST00000225831	p.I65N	c.194	0.104794588	3.41	1
3564	GBP1	ENST00000370473	p.H85P	c.255_254	0.032464347	4.945	1
3564	GBP1	ENST00000370473	p.K232N	c.696	0.01277972	6.29	1
3564	GBP1	ENST00000370473	p.S275N	c.824	0.045244067	0	1
3565	PDE4A	ENST00000352831	p.R389H	c.1166	0.010287242	0	1
3565	PDE4A	ENST00000352831	p.Q615H	c.1845	0.010287242	6.603	1
3566	TNK2	ENST00000381916	p.P263L	c.788	0.021463066	5.542	1
3566	TNK2	ENST00000381916	p.D333E	c.999	0.021463066	0	1
3567	LGMN	ENST00000334869	p.D102N	c.304	0.038687197	0	1
3567	LGMN	ENST00000334869	p.G130D	c.389	0.038687197	4.692	1
3568	CYP11B2	ENST00000323110	p.R181Q	c.542	0.0140833	0	1
3568	CYP11B2	ENST00000323110	p.R208W	c.622	0.006319386	7.306	1
3568	CYP11B2	ENST00000323110	p.R282H	c.845	0.007763915	7.009	1
3569	ANAPC10	ENST00000309439	p.V74M	c.220	0.068630801	3.865	1
3569	ANAPC10	ENST00000309439	p.Y159C	c.476	0.068630801	0	1
3570	SERPINA3	ENST00000467132	p.D407N	c.1219	1.164518761	0	2
3570	SERPINA3	ENST00000467132	p.V54G	c.161	0.270454969	2.909	1
3570	SERPINA3	ENST00000467132	p.T125S	c.373	0.06693839	4.994	1
3571	CYP7A1	ENST00000301645	p.D494N	c.1480	0.119741902	3.062	1
3571	CYP7A1	ENST00000301645	p.S173Y	c.518	0.119741902	0	1
3572	KLK3	ENST00000598145	p.P181S	c.541	0.028924163	0	1
3572	KLK3	ENST00000598145	p.K225N	c.675	0.023533214	6.061	1
3572	KLK3	ENST00000598145	p.A231T	c.691	0.013946046	6.164	1
3573	HAT1	ENST00000264108	p.E206Q	c.616	0.012638771	6.306	1

3573 HAT1	ENST00000264108	p.H252R	c.755	0.012638771	0	1
3574 C1R	ENST00000542285	p.L452M	c.1354	0.091355309	0	1
3574 C1R	ENST00000542285	p.D505G	c.1514	0.009739072	6.682	1
3574 C1R	ENST00000542285	p.A507T	c.1519	0.081616237	3.615	1
3575 STRADA	ENST00000336174	p.E65D	c.195	0.012421645	6.331	1
3575 STRADA	ENST00000336174	p.A139V	c.416	0.012421645	0	1
3576 PAIP1	ENST00000306846	p.L166V	c.496	0.083098549	0	1
3576 PAIP1	ENST00000306846	p.Q207H	c.621	0.081262827	3.803	1
3576 PAIP1	ENST00000306846	p.M217K	c.650	0.011454037	6.448	1
3577 GIMAP1	ENST00000307194	p.V150I	c.448	0.026772404	5.603	1
3577 GIMAP1	ENST00000307194	p.R184L	c.551	0.082085985	0	1
3577 GIMAP1	ENST00000307194	p.M207N	c.620_621	0.067709422	4.023	1
3578 SETD7	ENST00000274031	p.T203S	c.607	0.037343475	5.743	1
3578 SETD7	ENST00000274031	p.R312C	c.934	1.018671738	0	2
3579 LIG1	ENST00000263274	p.D600N	c.1798_1797	0.126131454	2.987	1
3579 LIG1	ENST00000263274	p.R641G	c.1921	0.126131454	0	1
3580 DARS	ENST00000264161	p.R207Q	c.620	0.10431366	0	1
3580 DARS	ENST00000264161	p.I268M	c.804	0.10431366	3.261	1
3581 CD80	ENST00000264246	p.C50R	c.148	0.023019495	5.441	1
3581 CD80	ENST00000264246	p.N97H	c.289	0.023019495	0	1
3582 PRPF31	ENST00000321030	p.V234L	c.700	0.002972721	8.394	1
3582 PRPF31	ENST00000321030	p.G272D	c.815	0.002972721	0	1
3583 KARS	ENST00000319410	p.E367K	c.1099	0.007233953	7.111	1
3583 KARS	ENST00000319410	p.I579N	c.1736	0.007233953	0	1
3584 SH3BP2	ENST00000503393	p.S521F	c.1562	0.005090419	7.618	1
3584 SH3BP2	ENST00000503393	p.Y568H	c.1702	0.005090419	0	1
3585 ALK	ENST00000389048	p.E1242K	c.3724	0.017985773	5.797	1
3585 ALK	ENST00000389048	p.S1308Y	c.3923	0.017985773	0	1
3586 DDIT4	ENST00000307365	p.H91R	c.272	0.007672966	0	1
3586 DDIT4	ENST00000307365	p.Y136C	c.407	0.007672966	7.026	1
3587 TYK2	ENST00000264818	p.R703L	c.2108	0.066754088	0	1
3587 TYK2	ENST00000264818	p.E812D	c.2436	0.066754088	3.905	1
3588 VRK3	ENST00000594948	p.A240V	c.719	0.151715077	0	1
3588 VRK3	ENST00000594948	p.F296L	c.888	0.044499918	7.502	1
3588 VRK3	ENST00000594948	p.LA324FS	c.973_972	0.146198458	2.774	1
3589 ACOT12	ENST00000307624	p.C40F	c.119	0.030039404	6.057	1
3589 ACOT12	ENST00000307624	p.R244C	c.730	1.031364779	0	1
3589 ACOT12	ENST00000307624	p.R244H	c.731	1.031364779	0	1
3589 ACOT12	ENST00000307624	p.R279C	c.835	0.032690154	5.935	1
3590 SERPINB1	ENST00000380739	p.S377Y	c.1130	0.001636694	0	1
3590 SERPINB1	ENST00000380739	p.S20N	c.59	0.001636694	9.255	1
3591 CA2	ENST00000285379	p.W97L	c.290	0.267572175	0	1
3591 CA2	ENST00000285379	p.R226C	c.676	0.267572175	1.902	1
3592 EPRS	ENST00000366923	p.E1184K	c.3550	0.019818616	0	1
3592 EPRS	ENST00000366923	p.N1271H	c.3811	0.019818616	5.657	1
3593 ANPEP	ENST00000300060	p.E912K	c.2734	0.025207555	6.31	1
3593 ANPEP	ENST00000300060	p.T944M	c.2831	1.012603777	0	2
3594 SOD1	ENST00000270142	p.H111N	c.331	0.021226348	0	1
3594 SOD1	ENST00000270142	p.V149A	c.446	0.021226348	5.558	1

3595 MAD2L1	ENST00000296509	p.S195G	c.583	0.0625	0	1
3595 MAD2L1	ENST00000296509	p.F23L	c.69	0.0625	4	1
3596 DPP4	ENST00000360534	p.K539N	c.1617	0.082035718	9.896	1
3596 DPP4	ENST00000360534	p.D620G	c.1859	0.106196404	6.251	1
3596 DPP4	ENST00000360534	p.F763L	c.2287	1.014179462	0	2
3597 SMS	ENST00000404933	p.D239Y	c.715	0.017775082	5.814	1
3597 SMS	ENST00000404933	p.E269K	c.805	0.051832472	4.27	1
3597 SMS	ENST00000404933	p.K304I	c.911	0.069607553	0	1
3598 SIRPA	ENST00000400068	p.P74Q	c.221	0.247059099	4.339	1
3598 SIRPA	ENST00000400068	p.D131in_frame_del	c.387_389	4.04941182	0	5
3599 SOCS2	ENST00000551556	p.I72N	c.215	0.013237695	8.404	1
3599 SOCS2	ENST00000551556	p.R96Q	c.287	1.002952187	0	2
3600 RAB25	ENST00000361084	p.R52S	c.154	0.030522142	0	1
3600 RAB25	ENST00000361084	p.R31Q	c.92	0.030522142	5.034	1
3601 HK1	ENST00000448642	p.A427T	c.1279	0.023949274	0	1
3601 HK1	ENST00000448642	p.R77C	c.229	0.011501772	6.442	1
3601 HK1	ENST00000448642	p.K80N	c.240	0.012447502	6.328	1
3602 HGFAC	ENST00000511533	p.D571N	c.1711	0.011398596	0	1
3602 HGFAC	ENST00000511533	p.G621S	c.1861	0.011398596	6.455	1
3603 GZMH	ENST00000216338	p.R125W	c.373	0.038954305	5.868	1
3603 GZMH	ENST00000216338	p.D210G	c.629	0.030145911	6.297	1
3603 GZMH	ENST00000216338	p.R32C	c.94	1.029839921	0	1
3603 GZMH	ENST00000216338	p.R32H	c.95	1.029839921	0	1
3604 CRYBB2	ENST00000398215	p.G57K	c.169_170	0.039637231	0	1
3604 CRYBB2	ENST00000398215	p.L97M	c.289	0.039637231	4.657	1
3605 GAD1	ENST00000358196	p.H404Y	c.1210	0.036676506	0	1
3605 GAD1	ENST00000358196	p.G252C	c.754	0.036676506	4.769	1
3606 SEC24C	ENST00000345254	p.R868C	c.2602	0.033839118	4.94	1
3606 SEC24C	ENST00000345254	p.K913N	c.2739	0.071317921	0	1
3606 SEC24C	ENST00000345254	p.S1077F	c.3230	0.040002929	4.69	1
3607 JAK1	ENST00000342505	p.Q980L	c.2939	0.010731533	6.542	1
3607 JAK1	ENST00000342505	p.L1153F	c.3459	0.010731533	0	1
3608 DAAM1	ENST00000351081	p.V787M	c.2359	0.010459807	0	1
3608 DAAM1	ENST00000351081	p.A935D	c.2804	0.010459807	6.579	1
3609 PLCB3	ENST00000279230	p.E717K	c.2149	1.005999259	0	2
3609 PLCB3	ENST00000279230	p.D757N	c.2269	0.011998518	7.381	1
3610 SULT1C3	ENST00000376700	p.P141S	c.421	1.086449414	0	2
3611 DDB1	ENST00000301764	p.L631V	c.1891	0.13570656	3.059	1
3611 DDB1	ENST00000301764	p.K709N	c.2127	0.023674657	5.564	1
3611 DDB1	ENST00000301764	p.R713C	c.2137	0.144765339	9.595	1
3611 DDB1	ENST00000301764	p.T1022I	c.3065	0.010720287	6.707	1
3611 DDB1	ENST00000301764	p.R1138Q	c.3413	0.151994227	0	1
3612 SERPING1	ENST00000403558	p.F464V	c.1390	0.059167576	0	1
3612 SERPING1	ENST00000403558	p.N222K	c.666	0.023666661	5.401	1
3612 SERPING1	ENST00000403558	p.I230M	c.690	0.035500915	4.816	1
3613 TTPA	ENST00000260116	p.R77S	c.231	0.045122787	0	1
3613 TTPA	ENST00000260116	p.E141D	c.423	0.045122787	4.47	1
3614 BHMT	ENST00000274353	p.R57C	c.169	1.031995216	0	1
3614 BHMT	ENST00000274353	p.R57H	c.170	1.031995216	0	1

3614 BHMT	ENST00000274353	p.E113K	c.337	0.063990431	4.966	1
3615 PYGM	ENST00000164139	p.R650G	c.1948	0.078563336	3.67	1
3615 PYGM	ENST00000164139	p.D129N	c.385	0.078563336	0	1
3616 UPF2	ENST00000357604	p.N682H	c.2044	0.144653215	2.806	1
3616 UPF2	ENST00000357604	p.L688S	c.2063	0.018056455	6.427	1
3616 UPF2	ENST00000357604	p.R723K	c.2168	0.154613354	0	1
3617 FTMT	ENST00000321339	p.F111V	c.331	0.055940307	0	1
3617 FTMT	ENST00000321339	p.L157R	c.470	0.037034149	4.755	1
3617 FTMT	ENST00000321339	p.A159V	c.476	0.018906158	5.725	1
3618 GUSB	ENST00000304895	p.A380T	c.1138	1.111259467	0	1
3618 GUSB	ENST00000304895	p.A380V	c.1139	1.111259467	0	1
3618 GUSB	ENST00000304895	p.V402A	c.1205	0.222518933	3.168	1
3619 GRHPR	ENST00000607784	p.A24V	c.71	0.010709241	6.545	1
3619 GRHPR	ENST00000607784	p.R25W	c.73	0.01179239	6.406	1
3620 ALDH3A1	ENST00000444455	p.I71T	c.212	0.077213665	3.695	1
3620 ALDH3A1	ENST00000444455	p.L33M	c.97	0.077213665	0	1
3621 CHAT	ENST00000337653	p.A631P	c.1891	0.023568439	5.407	1
3621 CHAT	ENST00000337653	p.L175I	c.522_523	0.023568439	0	1
3622 CRMP1	ENST00000324989	p.S541L	c.1622	0.167492118	2.757	1
3622 CRMP1	ENST00000324989	p.A542V	c.1625	0.136129683	3.14	1
3622 CRMP1	ENST00000324989	p.D201H	c.601	0.261371272	0	1
3623 PDGFRB	ENST00000261799	p.V51F	c.151	0.083380526	4.669	1
3623 PDGFRB	ENST00000261799	p.V84M	c.250	1.039308905	0	2
3624 SNAP25	ENST00000304886	p.K40T	c.119	0.005896195	0	1
3624 SNAP25	ENST00000304886	p.G158E	c.473	0.005896195	7.406	1
3625 ARF1	ENST00000541182	p.V91M	c.271	0.223401934	0	1
3625 ARF1	ENST00000541182	p.A125T	c.373	0.143660868	2.926	1
3625 ARF1	ENST00000541182	p.L25M	c.73	0.103905014	3.445	1
3626 MS4A1	ENST00000345732	p.C81Y	c.242	0.012700244	7.299	1
3626 MS4A1	ENST00000345732	p.G115K	c.343_344	1.006350122	0	1
3626 MS4A1	ENST00000345732	p.G115E	c.344	1.006350122	0	1
3627 GLRX3	ENST00000481034	p.A43P	c.127	0.048361406	4.37	1
3627 GLRX3	ENST00000481034	p.P86S	c.256	0.048361406	0	1
3628 CYP2E1	ENST00000252945	p.A352V	c.1055	0.060622619	4.044	1
3628 CYP2E1	ENST00000252945	p.E320A	c.959	0.060622619	0	1
3629 CTSE	ENST00000361052	p.A113T	c.337	0.114070686	0	1
3629 CTSE	ENST00000361052	p.S173C	c.517	0.114070686	3.132	1
3630 ARL2	ENST00000246747	p.A159T	c.475	0.068726009	0	1
3630 ARL2	ENST00000246747	p.T31I	c.92	0.068726009	3.863	1
3631 GJB2	ENST00000382844	p.F146L	c.438	0.00579892	7.43	1
3631 GJB2	ENST00000382844	p.F150L	c.450	0.008338479	6.906	1
3631 GJB2	ENST00000382844	p.R32C	c.94	0.014137399	0	1
3632 BLVRA	ENST00000265523	p.L95F	c.283	0.158109943	3.661	1
3632 BLVRA	ENST00000265523	p.L129F	c.387	0.010424395	7.808	1
3632 BLVRA	ENST00000265523	p.R23W	c.67	1.083517261	0	1
3632 BLVRA	ENST00000265523	p.R23Q	c.68	1.083517261	0	1
3633 EPHX2	ENST00000521400	p.E394K	c.1180	0.102537253	0	1
3633 EPHX2	ENST00000521400	p.G426V	c.1277	0.092461719	3.435	1
3633 EPHX2	ENST00000521400	p.N431D	c.1291	0.010075533	6.633	1

3634 RYR2	ENST00000360064	p.L368Q	c.1103	0.011581774	6.432	1
3634 RYR2	ENST00000360064	p.E394K	c.1180	0.011581774	0	1
3635 FURIN	ENST00000268171	p.R498H	c.1493	0.007011797	7.156	1
3635 FURIN	ENST00000268171	p.T554I	c.1661	0.007011797	0	1
3636 EPHA1	ENST00000275815	p.P914L	c.2741	0.108199333	3.304	1
3636 EPHA1	ENST00000275815	p.R926G	c.2776	0.075579699	3.865	1
3636 EPHA1	ENST00000275815	p.R966C	c.2896	0.169881235	0	1
3637 ESRRB	ENST00000512784	p.C111Y	c.332	0.179742067	2.476	1
3637 ESRRB	ENST00000512784	p.T153I	c.458	0.179742067	0	1
3638 APBA1	ENST00000265381	p.G793R	c.2377	0.07065816	3.823	1
3638 APBA1	ENST00000265381	p.H816Y	c.2446	0.07065816	0	1
3639 DNMT3L	ENST00000270172	p.V285L	c.853	0.023067418	7.437	1
3639 DNMT3L	ENST00000270172	p.V307A	c.920	1.005770852	0	2
3640 DCC	ENST00000442544	p.P432L	c.1295	0.040712042	4.79	1
3640 DCC	ENST00000442544	p.D434N	c.1300	0.130871967	2.985	1
3640 DCC	ENST00000442544	p.Q515E	c.1543	0.162452937	0	1
3641 RPL7A	ENST00000323345	p.Q94R	c.281	0.024484287	0	1
3641 RPL7A	ENST00000323345	p.A214T	c.640	0.024484287	5.352	1
3642 PDK2	ENST00000503176	p.E56Q	c.166	0.117440344	0	1
3642 PDK2	ENST00000503176	p.P28Q	c.83	0.117440344	3.09	1
3643 CUTC	ENST00000370476	p.S34L	c.101	0.040798658	6.148	1
3643 CUTC	ENST00000370476	p.V39M	c.115	0.11770635	3.145	1
3643 CUTC	ENST00000370476	p.R94L	c.281	0.132127749	0	1
3643 CUTC	ENST00000370476	p.V255L	c.763	0.033146471	7.65	1
3644 MTRR	ENST00000264668	p.S481L	c.1442	0.158210066	3.24	1
3644 MTRR	ENST00000264668	p.R552Q	c.1655	0.034752299	5.035	1
3644 MTRR	ENST00000264668	p.P578S	c.1732	0.083700949	4.898	1
3644 MTRR	ENST00000264668	p.D722N	c.2164	0.169883541	0	1
3645 PYGM	ENST00000164139	p.G165W	c.493	1.021522657	0	1
3645 PYGM	ENST00000164139	p.G165V	c.494	1.021522657	0	1
3645 PYGM	ENST00000164139	p.R278C	c.832	0.043045314	5.538	1
3646 ACO1	ENST00000379923	p.P443L	c.1328	0.007839623	0	1
3646 ACO1	ENST00000379923	p.D292N	c.874	0.007839623	6.995	1
3647 PRKAB1	ENST00000229328	p.G88R	c.262	1.018568486	0	2
3647 PRKAB1	ENST00000229328	p.N110S	c.329	0.037136972	5.751	1
3648 DNMT3A	ENST00000321117	p.D781G	c.2342	0.051810026	0	1
3648 DNMT3A	ENST00000321117	p.R803S	c.2409	0.022143084	5.497	1
3648 DNMT3A	ENST00000321117	p.P804S	c.2410	0.029666941	5.075	1
3649 BAI3	ENST00000370598	p.A509P	c.1525	0.002436456	0	1
3649 BAI3	ENST00000370598	p.G555V	c.1664	0.002436456	8.681	1
3650 OBFC1	ENST00000224950	p.I84in_frame_del	c.253_251	0.013267129	6.236	1
3650 OBFC1	ENST00000224950	p.R139H	c.416	0.013267129	0	1
3651 AMY2A	ENST00000414303	p.V80F	c.238	0.07124833	3.811	1
3651 AMY2A	ENST00000414303	p.S132R	c.396	0.07124833	0	1
3652 KAT8	ENST00000448516	p.W192S	c.575	0.028120511	5.253	1
3652 KAT8	ENST00000448516	p.L271Q	c.812	0.098566565	0	1
3652 KAT8	ENST00000448516	p.Y301H	c.901	0.074240224	3.789	1
3653 PPCDC	ENST00000342932	p.R92Q	c.275	0.007494251	0	1
3653 PPCDC	ENST00000342932	p.R125Q	c.374	0.007494251	7.06	1

3654 ALB	ENST00000295897	p.P390S	c.1168	0.022189177	5.494	1
3654 ALB	ENST00000295897	p.E566Q	c.1696	0.022189177	0	1
3655 PIK3C3	ENST00000262039	p.I445L	c.1333	0.070462526	0	1
3655 PIK3C3	ENST00000262039	p.R522I	c.1565	0.070462526	3.827	1
3656 CR1	ENST00000367052	p.N1361K	c.4083	0.005425606	7.526	1
3656 CR1	ENST00000367052	p.L1389F	c.4165	0.005425606	0	1
3657 MGAM	ENST00000475668	p.M1118I	c.3354	2.119658932	0	3
3657 MGAM	ENST00000475668	p.P1445L	c.4334	0.358976797	3.063	1
3658 UBTF	ENST00000302904	p.G479D	c.1436	0.301243079	1.731	1
3658 UBTF	ENST00000302904	p.M548I	c.1644	0.301243079	0	1
3659 KCNMA1	ENST00000404771	p.R754S	c.2260	1.015155655	0	1
3659 KCNMA1	ENST00000404771	p.R754H	c.2261	1.015155655	0	1
3659 KCNMA1	ENST00000404771	p.E1025Q	c.3073	0.045785417	6.044	1
3660 KIF11	ENST00000260731	p.N271S	c.812	0.111139409	3.185	1
3660 KIF11	ENST00000260731	p.L292M	c.873_874	0.120717463	0	1
3660 KIF11	ENST00000260731	p.T317P	c.949	0.011944603	6.538	1
3661 PRPF4B	ENST00000480058	p.L724V	c.2170	0.005652089	7.467	1
3661 PRPF4B	ENST00000480058	p.G836V	c.2507	0.005652089	0	1
3662 STS	ENST00000217961	p.W135L	c.404	0.111025944	0	1
3662 STS	ENST00000217961	p.F159L	c.477	0.039907681	4.75	1
3662 STS	ENST00000217961	p.S163Y	c.488	0.07660818	3.759	1
3663 VWF	ENST00000261405	p.E1709K	c.5125	0.010287242	6.603	1
3663 VWF	ENST00000261405	p.R1830C	c.5488	0.016515907	5.92	1
3663 VWF	ENST00000261405	p.R1853Q	c.5558	0.026803148	0	1
3664 ACE2	ENST00000427411	p.E375D	c.1125	0.01170282	6.417	1
3664 ACE2	ENST00000427411	p.S409L	c.1226	0.01929116	0	1
3664 ACE2	ENST00000427411	p.C542R	c.1624	0.00758834	7.042	1
3665 PPIP5K2	ENST00000358359	p.I131L	c.391	0.109879945	4.186	1
3665 PPIP5K2	ENST00000358359	p.G324A	c.971	1.054939973	0	1
3665 PPIP5K2	ENST00000358359	p.G324D	c.971	1.054939973	0	1
3666 BPI	ENST00000262865	p.P368H	c.1103	0.01751822	0	1
3666 BPI	ENST00000262865	p.M436I	c.1308	0.01751822	5.835	1
3667 SIRT6	ENST00000337491	p.A53V	c.158	0.020081349	5.638	1
3667 SIRT6	ENST00000337491	p.A89S	c.265	0.018517075	5.755	1
3667 SIRT6	ENST00000337491	p.D116N	c.346	0.038598424	0	1
3668 COMP	ENST00000222271	p.D530N	c.1588	0.002297053	8.766	1
3668 COMP	ENST00000222271	p.E583Q	c.1747	0.146401273	2.772	1
3668 COMP	ENST00000222271	p.R740C	c.2218	0.148698326	0	1
3669 XYLB	ENST00000207870	p.T465A	c.1393	0.065953746	4.297	1
3669 XYLB	ENST00000207870	p.S468L	c.1403	0.336838105	1.754	1
3669 XYLB	ENST00000207870	p.V23F	c.67	0.015015522	8.186	1
3669 XYLB	ENST00000207870	p.S284L	c.851	0.35412136	0	1
3669 XYLB	ENST00000207870	p.R289S	c.867	0.249967598	8.227	1
3670 ENPEP	ENST00000265162	p.V445A	c.1334	0.173975096	0	1
3670 ENPEP	ENST00000265162	p.S484F	c.1451	0.111789868	3.258	1
3670 ENPEP	ENST00000265162	p.H623Y	c.1867	0.089456536	3.848	1
3671 IPO13	ENST00000372343	p.V790G	c.2369	0.014091803	6.149	1
3671 IPO13	ENST00000372343	p.S837Y	c.2510	0.014091803	0	1
3672 APOBEC3C	ENST00000361441	p.K10R	c.29_30	0.024586326	5.346	1

3672 APOBEC3C	ENST00000361441	p.K154E	c.460	0.024586326	0	1
3673 MYO1C	ENST00000359786	p.R624C	c.1870	0.116675162	0	1
3673 MYO1C	ENST00000359786	p.S139Y	c.416	0.112656308	3.15	1
3673 MYO1C	ENST00000359786	p.A149V	c.446	0.015105756	7.959	1
3675 HTRA2	ENST00000258080	p.D190N	c.568	0.03489103	4.841	1
3675 HTRA2	ENST00000258080	p.L192I	c.574	0.022545761	5.471	1
3675 HTRA2	ENST00000258080	p.L240F	c.718	0.057436791	0	1
3676 TAX1BP1	ENST00000409980	p.F770I	c.2308	0.005715122	7.451	1
3676 TAX1BP1	ENST00000409980	p.P782H	c.2345_2346	0.022112409	5.499	1
3676 TAX1BP1	ENST00000409980	p.H804N	c.2409_2410	0.027827531	0	1
3677 PTPRJ	ENST00000418331	p.H402Y	c.1204	0.118011552	0	1
3677 PTPRJ	ENST00000418331	p.N431S	c.1292	0.118011552	3.083	1
3678 KIAA0319	ENST00000543707	p.P378L	c.1133	0.338681244	2.562	1
3678 KIAA0319	ENST00000543707	p.G401R	c.1201	1.169340622	0	1
3678 KIAA0319	ENST00000543707	p.G401E	c.1202	1.169340622	0	1
3679 NCKAP1	ENST00000360982	p.L96V	c.286	0.010033717	0	1
3679 NCKAP1	ENST00000360982	p.N167S	c.500	0.010033717	6.639	1
3680 CD300A	ENST00000360141	p.R74Q	c.221	0.006881792	7.183	1
3680 CD300A	ENST00000360141	p.E95K	c.283	0.011207044	0	1
3680 CD300A	ENST00000360141	p.P27T	c.79	0.004325252	7.853	1
3681 PKM	ENST00000319622	p.P117L	c.350	0.041665584	4.585	1
3681 PKM	ENST00000319622	p.S222L	c.665	0.041665584	0	1
3682 IL4R	ENST00000543915	p.V177M	c.529	0.009413846	0	1
3682 IL4R	ENST00000543915	p.R200W	c.598	0.009413846	6.731	1
3683 CDC25B	ENST00000245960	p.R390Q	c.1169	1.084846488	0	2
3683 CDC25B	ENST00000245960	p.A399G	c.1196	0.127200816	6.89	1
3683 CDC25B	ENST00000245960	p.R506H	c.1517	0.263167909	3.71	1
3684 ITGAX	ENST00000562522	p.L706F	c.2116	1.01979116	0	1
3684 ITGAX	ENST00000562522	p.L706P	c.2117	1.01979116	0	1
3684 ITGAX	ENST00000562522	p.T737M	c.2210	0.03958232	5.659	1
3685 LCK	ENST00000333070	p.E423K	c.1267	0.21758715	0	1
3685 LCK	ENST00000333070	p.G445E	c.1334	0.105228441	3.417	1
3685 LCK	ENST00000333070	p.Q255E	c.763	0.135570474	3.012	1
3686 TLR4	ENST00000355622	p.E270K	c.808	0.109727383	3.366	1
3686 TLR4	ENST00000355622	p.K271T	c.812	0.094071359	3.607	1
3686 TLR4	ENST00000355622	p.Y295C	c.884	0.228302295	0	1
3686 TLR4	ENST00000355622	p.T319N	c.956	0.058058008	4.344	1
3687 DPYSL3	ENST00000343218	p.D202Y	c.604	0.009368281	7.738	1
3687 DPYSL3	ENST00000343218	p.A241D	c.722	1.00468414	0	1
3687 DPYSL3	ENST00000343218	p.A241V	c.722	1.00468414	0	1
3688 JUP	ENST00000393931	p.V340M	c.1018	0.00951883	0	1
3688 JUP	ENST00000393931	p.G298D	c.893	0.00951883	6.715	1
3689 FDFT1	ENST00000220584	p.A55T	c.163	0.009067999	6.785	1
3689 FDFT1	ENST00000220584	p.M325I	c.975	0.009067999	0	1
3690 ITGAV	ENST00000261023	p.Q828L	c.2483	0.073251393	3.771	1
3690 ITGAV	ENST00000261023	p.L910W	c.2729	0.073251393	0	1
3691 PEX5	ENST00000412720	p.R580H	c.1739	0.0095585	6.709	1
3691 PEX5	ENST00000412720	p.I624M	c.1872	0.0095585	0	1
3692 ARHGEF11	ENST00000368194	p.E901K	c.2701	0.006506061	0	1

3692 ARHGEF11	ENST00000368194	p.R1081W	c.3241	0.006506061	7.264	1
3693 SOS1	ENST00000426016	p.M209L	c.625	0.061440657	0	1
3693 SOS1	ENST00000426016	p.L260P	c.779	0.049240868	4.344	1
3693 SOS1	ENST00000426016	p.D265N	c.793	0.012199789	6.357	1
3694 VRK3	ENST00000594948	p.E150K	c.448	0.005165057	0	1
3694 VRK3	ENST00000594948	p.A206V	c.617	0.005165057	7.597	1
3695 CHKA	ENST00000265689	p.L144F	c.430	0.152512564	0	1
3695 CHKA	ENST00000265689	p.E206D	c.618	0.152512564	2.713	1
3696 TOP1	ENST00000361337	p.R621H	c.1862	0.022797193	5.455	1
3696 TOP1	ENST00000361337	p.D707H	c.2119	0.022797193	0	1
3697 HERC2	ENST00000261609	p.C4263R	c.12787	0.015581738	0	1
3697 HERC2	ENST00000261609	p.P4292L	c.12875	0.015581738	6.004	1
3698 SULT1C2	ENST00000437390	p.E63Q	c.187	0.068085062	0	1
3698 SULT1C2	ENST00000437390	p.S116F	c.347	0.008338479	6.906	1
3698 SULT1C2	ENST00000437390	p.K228N	c.684	0.065313136	4.065	1
3700 PRSS3	ENST00000361005	p.G106C	c.316	0.017603425	5.828	1
3700 PRSS3	ENST00000361005	p.S257F	c.770	0.017603425	0	1
3701 DPYSL2	ENST00000311151	p.C179Y	c.536	0.161880375	2.627	1
3701 DPYSL2	ENST00000311151	p.D203N	c.607	0.161880375	0	1
3702 CASQ1	ENST00000368078	p.D135H	c.403	0.003077554	8.344	1
3702 CASQ1	ENST00000368078	p.D199E	c.597	0.003077554	0	1
3703 PIP	ENST00000291009	p.T107N	c.320	0.10330629	3.275	1
3703 PIP	ENST00000291009	p.V145I	c.433	0.10330629	0	1
3704 FKBP8	ENST00000453489	p.E75Q	c.223	0.235472519	0	1
3704 FKBP8	ENST00000453489	p.S143L	c.428	0.155745409	2.811	1
3704 FKBP8	ENST00000453489	p.R145C	c.433	0.10622461	3.427	1
3705 KYNU	ENST00000264170	p.K157N	c.471	0.097463105	0	1
3705 KYNU	ENST00000264170	p.V217M	c.649	0.097463105	3.359	1
3706 LIPF	ENST00000394375	p.P161S	c.481	0.006510572	7.263	1
3706 LIPF	ENST00000394375	p.K169N	c.507	0.010358795	6.593	1
3706 LIPF	ENST00000394375	p.R201I	c.602	0.016869367	0	1
3707 HNRNPM	ENST00000325495	p.S225N	c.674	0.020249078	5.626	1
3707 HNRNPM	ENST00000325495	p.G266D	c.797	0.020249078	0	1
3708 ALOX12	ENST00000251535	p.R430S	c.1288	0.08478777	0	1
3708 ALOX12	ENST00000251535	p.D282N	c.844	0.08478777	3.56	1
3709 FCGR3A	ENST00000367969	p.A62S	c.184	0.233355467	4.499	1
3709 FCGR3A	ENST00000367969	p.V63M	c.187	1.145782944	4.904	1
3709 FCGR3A	ENST00000367969	p.V63A	c.188	1.145782944	4.904	1
3709 FCGR3A	ENST00000367969	p.G85R	c.253	2.114851052	0	1
3709 FCGR3A	ENST00000367969	p.G85E	c.254	2.114851052	0	1
3709 FCGR3A	ENST00000367969	p.G85K	c.254_253	2.114851052	0	1
3709 FCGR3A	ENST00000367969	p.D134G	c.401	0.17298515	8.03	1
3710 RASA1	ENST00000274376	p.M802I	c.2406	1.044625124	0	2
3710 RASA1	ENST00000274376	p.F915L	c.2743	0.089250249	4.486	1
3711 NF2	ENST00000432151	p.R132C	c.394	0.065880714	0	1
3712 RB1	ENST00000267163	p.E440K	c.1318	0.082469244	3.6	1
3712 RB1	ENST00000267163	p.N290H	c.868	0.082469244	0	1
3713 TKT	ENST00000423516	p.A412T	c.1234	1.010724097	0	2
3713 TKT	ENST00000423516	p.Y571D	c.1711	0.034632816	6.543	1

3714 S1PR2	ENST00000590320	p.E50K	c.148	0.140632311	0	1
3714 S1PR2	ENST00000590320	p.V286I	c.856	0.140632311	2.83	1
3715 TP53BP2	ENST00000343537	p.R896C	c.2686	0.013496966	0	1
3715 TP53BP2	ENST00000343537	p.R950I	c.2849	0.011040354	7.594	1
3715 TP53BP2	ENST00000343537	p.H1003Y	c.3007	0.011663326	6.909	1
3716 UCHL3	ENST00000377595	p.P57R	c.170	0.053548872	4.223	1
3716 UCHL3	ENST00000377595	p.D216N	c.646	0.053548872	0	1
3717 CTNNA1	ENST00000302763	p.K627R	c.1880	0.011589804	6.431	1
3717 CTNNA1	ENST00000302763	p.Y843C	c.2528	0.011589804	0	1
3718 PDE10A	ENST00000539869	p.G480C	c.1438	1.304775843	0	1
3718 PDE10A	ENST00000539869	p.G480V	c.1439	1.304775843	0	1
3718 PDE10A	ENST00000539869	p.P683L	c.2048	0.666731089	1.875	1
3718 PDE10A	ENST00000539869	p.G725C	c.2173	0.094532158	6.873	1
3718 PDE10A	ENST00000539869	p.G728V	c.2183	0.161905449	5.404	1
3719 TNKS	ENST00000310430	p.R1200Q	c.3599	0.134157536	0	1
3719 TNKS	ENST00000310430	p.A1271T	c.3811	0.134157536	2.898	1
3720 CSNK1D	ENST00000398519	p.G62R	c.184	0.010187896	6.617	1
3720 CSNK1D	ENST00000398519	p.L144M	c.430	0.010187896	0	1
3721 NTRK1	ENST00000524377	p.M375T	c.1124	0.018594245	0	1
3721 NTRK1	ENST00000524377	p.N318S	c.953	0.018594245	5.749	1
3722 ACTN2	ENST00000542672	p.R357H	c.1070	0.009105791	6.779	1
3722 ACTN2	ENST00000542672	p.E278Q	c.832	0.009105791	0	1
3723 MAPK14	ENST00000229795	p.R73W	c.217	0.260670458	2.157	1
3723 MAPK14	ENST00000229795	p.A144T	c.430	0.199003436	2.621	1
3723 MAPK14	ENST00000229795	p.D324A	c.971	0.386777058	0	1
3724 NCAM2	ENST00000400546	p.S217Y	c.650	0.102237757	0	1
3724 NCAM2	ENST00000400546	p.F295L	c.885	0.102237757	3.29	1
3725 FOLH1	ENST00000256999	p.D596H	c.1786	1.028596849	6.128	1
3725 FOLH1	ENST00000256999	p.D596N	c.1786	1.028596849	6.128	1
3725 FOLH1	ENST00000256999	p.A601T	c.1801	0.091632297	4.448	1
3725 FOLH1	ENST00000256999	p.A643S	c.1927	1.092675142	0	2
3725 FOLH1	ENST00000256999	p.A743V	c.2228	0.036524289	5.775	1
3726 HSPG2	ENST00000374695	p.F4211L	c.12633	0.103091694	0	1
3726 HSPG2	ENST00000374695	p.G4336E	c.13007	0.103091694	3.278	1
3727 EEA1	ENST00000322349	p.A1350T	c.4048	0.008893703	0	1
3727 EEA1	ENST00000322349	p.S1395F	c.4184	0.008893703	6.813	1
3728 KIR3DL1	ENST00000541392	p.M59V	c.175	0.005711162	7.452	1
3728 KIR3DL1	ENST00000541392	p.P29L	c.86	0.005711162	0	1
3729 PPP2R1A	ENST00000322088	p.Q372L	c.1115	0.066201146	0	1
3729 PPP2R1A	ENST00000322088	p.P406R	c.1217	0.066201146	3.917	1
3730 RAB5A	ENST00000273047	p.R81Q	c.242	0.0417699	4.621	1
3730 RAB5A	ENST00000273047	p.N113K	c.339	0.068472908	0	1
3730 RAB5A	ENST00000273047	p.Y151S	c.452	0.028965298	5.167	1
3731 F5	ENST00000367796	p.L56I	c.166	2.00993682	0	3
3731 F5	ENST00000367796	p.M231I	c.693	0.029810461	6.653	1
3732 SMAD3	ENST00000327367	p.K341N	c.1023	0.094339123	3.406	1
3732 SMAD3	ENST00000327367	p.C320Y	c.959	0.094339123	0	1
3733 SELL	ENST00000236147	p.E131D	c.393	0.142190849	2.874	1
3733 SELL	ENST00000236147	p.K135N	c.405	0.04817675	4.56	1

3733 SELL	ENST00000236147	p.D157N	c.469	0.17880187	0	1
3734 VCP	ENST00000358901	p.R83W	c.247	1.299086145	0	1
3734 VCP	ENST00000358901	p.R83Q	c.248	1.299086145	0	1
3734 VCP	ENST00000358901	p.V28L	c.82	0.049323054	5.529	1
3734 VCP	ENST00000358901	p.D29H	c.85	0.278222636	2.964	1
3734 VCP	ENST00000358901	p.E30K	c.88	0.320903853	2.744	1
3735 ADRB2	ENST00000305988	p.S111F	c.332	0.007535923	0	1
3735 ADRB2	ENST00000305988	p.P168S	c.502	0.007535923	7.052	1
3736 ERBB4	ENST00000342788	p.R114Q	c.341	0.007089993	7.14	1
3736 ERBB4	ENST00000342788	p.P172R	c.515	0.007089993	0	1
3737 MTOR	ENST00000361445	p.W2023G	c.6067	0.020674554	5.596	1
3737 MTOR	ENST00000361445	p.A2056V	c.6167	0.020674554	0	1
3738 SEMA4D	ENST00000438547	p.V216M	c.646	0.007345111	0	1
3738 SEMA4D	ENST00000438547	p.P307S	c.919	0.007345111	7.089	1
3739 NRP1	ENST00000374867	p.A293V	c.878	0.108442336	0	1
3739 NRP1	ENST00000374867	p.W325R	c.973	0.108442336	3.205	1
3740 PITRM1	ENST00000380989	p.H259Y	c.775	0.010510681	6.572	1
3740 PITRM1	ENST00000380989	p.K287R	c.860	0.010510681	0	1
3741 USO1	ENST00000538159	p.V279E	c.836	0.078890752	3.664	1
3741 USO1	ENST00000538159	p.I331T	c.992	0.078890752	0	1
3742 MCAT	ENST00000290429	p.R272H	c.815	0.06506385	3.942	1
3742 MCAT	ENST00000290429	p.V321A	c.962	0.06506385	0	1
3743 MGAM	ENST00000475668	p.R340C	c.1018	0.033889919	4.883	1
3743 MGAM	ENST00000475668	p.P556S	c.1666	0.043669579	0	1
3743 MGAM	ENST00000475668	p.N325D	c.973	0.00977966	6.676	1
3744 ABCB10	ENST00000344517	p.Q489H	c.1467	0.150514124	6.554	1
3744 ABCB10	ENST00000344517	p.P518L	c.1553	1.012017977	0	1
3744 ABCB10	ENST00000344517	p.P518Q	c.1553	1.012017977	0	1
3744 ABCB10	ENST00000344517	p.D554H	c.1660	0.131979514	9.506	1
3745 ITGB3	ENST00000559488	p.E382G	c.1145	0.351791028	0	1
3745 ITGB3	ENST00000559488	p.K410E	c.1228	0.17805996	2.925	1
3745 ITGB3	ENST00000559488	p.S411Y	c.1232	0.246464794	2.199	1
3745 ITGB3	ENST00000559488	p.R589C	c.1765	0.020045935	8.744	1
3746 HAGH	ENST00000397356	p.L64V	c.190	0.091441951	3.451	1
3746 HAGH	ENST00000397356	p.T97P	c.289	0.091441951	0	1
3747 DDB1	ENST00000301764	p.S1046R	c.3138	0.045405158	0	1
3747 DDB1	ENST00000301764	p.D1115N	c.3343	0.045405158	4.461	1
3748 VCAM1	ENST00000294728	p.S54F	c.161	0.019103754	5.71	1
3748 VCAM1	ENST00000294728	p.T76A	c.226	0.029621724	0	1
3748 VCAM1	ENST00000294728	p.E28Q	c.82	0.010517969	6.571	1
3749 MYOF	ENST00000371501	p.W973R	c.2917	0.179244406	2.48	1
3749 MYOF	ENST00000371501	p.K1029T	c.3086	0.179244406	0	1
3750 ROCK2	ENST00000315872	p.G412A	c.1235	0.117921204	0	1
3750 ROCK2	ENST00000315872	p.V43E	c.128	0.004166351	7.907	1
3750 ROCK2	ENST00000315872	p.D48G	c.143	0.113754853	3.136	1
3751 HERC2	ENST00000261609	p.E4057K	c.12169	0.015261071	0	1
3751 HERC2	ENST00000261609	p.R4089K	c.12266	0.015261071	6.034	1
3752 EHMT1	ENST00000460843	p.V1063A	c.3188	0.010294375	6.602	1
3752 EHMT1	ENST00000460843	p.S1069C	c.3206	0.009718841	6.685	1

3752 EHMT1	ENST00000460843	p.D1178N	c.3532	0.020013216	0	1
3753 AK5	ENST00000354567	p.G474R	c.1420	0.003652247	8.097	1
3753 AK5	ENST00000354567	p.R475H	c.1424	0.034125642	4.873	1
3753 AK5	ENST00000354567	p.L497F	c.1489	0.037777889	0	1
3754 EPHA2	ENST00000358432	p.W912C	c.2736	0.047136877	4.407	1
3754 EPHA2	ENST00000358432	p.R957C	c.2869	0.047136877	0	1
3755 PREP	ENST00000369110	p.R260Q	c.779	0.014229216	0	1
3755 PREP	ENST00000369110	p.K281Q	c.841	0.014229216	6.135	1
3756 PYGM	ENST00000164139	p.D565N	c.1693	1.130398574	0	2
3756 PYGM	ENST00000164139	p.R602Q	c.1805	0.260797148	2.939	1
3757 P4HB	ENST00000331483	p.F104L	c.312	0.081333866	3.62	1
3757 P4HB	ENST00000331483	p.R132H	c.395	0.081333866	0	1
3758 PCTP	ENST00000573500	p.R112G	c.334	0.094125181	0	1
3758 PCTP	ENST00000573500	p.V149G	c.446	0.070062528	3.872	1
3758 PCTP	ENST00000573500	p.R151L	c.452	0.027590491	5.275	1
3759 FOLH1	ENST00000256999	p.K479E	c.1435	0.023633875	0	1
3759 FOLH1	ENST00000256999	p.M509I	c.1527	0.023633875	5.403	1
3760 KAT2A	ENST00000225916	p.G505S	c.1513	0.036246864	4.786	1
3760 KAT2A	ENST00000225916	p.V543I	c.1627	0.036246864	0	1
3761 GCDH	ENST00000591470	p.Y197C	c.590	0.129228842	0	1
3761 GCDH	ENST00000591470	p.E273Q	c.817	0.129228842	2.952	1
3762 BCAT1	ENST00000539282	p.R175C	c.523	2.012958118	0	3
3762 BCAT1	ENST00000539282	p.K234N	c.702	0.038874354	6.27	1
3763 CYP2C8	ENST00000371270	p.L36F	c.106	0.027969533	5.16	1
3763 CYP2C8	ENST00000371270	p.G70D	c.209	0.027969533	0	1
3764 DNAJC3	ENST00000602402	p.Y395C	c.1184	0.080214119	0	1
3764 DNAJC3	ENST00000602402	p.A445V	c.1334	0.080214119	3.64	1
3765 RXRG	ENST00000359842	p.P379Q	c.1136	0.040803697	0	1
3765 RXRG	ENST00000359842	p.R422H	c.1265	0.035378091	4.821	1
3765 RXRG	ENST00000359842	p.R427H	c.1280	0.005425606	7.526	1
3766 TXNDC5	ENST00000379757	p.A372T	c.1114	1.024535254	0	1
3766 TXNDC5	ENST00000379757	p.A372V	c.1115	1.024535254	0	1
3766 TXNDC5	ENST00000379757	p.A301E	c.902	0.049070507	5.349	1
3768 RALA	ENST00000005257	p.R84Q	c.251	0.009188213	0	1
3768 RALA	ENST00000005257	p.E116D	c.348	0.009188213	6.766	1
3769 CFHR2	ENST00000367421	p.Q183K	c.547	0.014874655	6.071	1
3769 CFHR2	ENST00000367421	p.P206T	c.616	0.056888248	0	1
3769 CFHR2	ENST00000367421	p.Y230S	c.689	0.042013594	4.573	1
3770 PTPRG	ENST00000474889	p.R937S	c.2811	0.06673756	5.307	1
3770 PTPRG	ENST00000474889	p.N975D	c.2923	0.139965012	0	1
3770 PTPRG	ENST00000474889	p.N998S	c.2993	0.117602436	3.124	1
3771 THBS1	ENST00000260356	p.A64T	c.190	0.1396558	0	1
3771 THBS1	ENST00000260356	p.I199F	c.595	0.062195142	4.121	1
3771 THBS1	ENST00000260356	p.N207S	c.620	0.086907187	3.605	1
3772 PANK3	ENST00000239231	p.E233D	c.699	0.013424387	6.219	1
3772 PANK3	ENST00000239231	p.V326A	c.977	0.013424387	0	1
3774 TNFRSF11B	ENST00000297350	p.R111C	c.331	0.005609158	0	1
3774 TNFRSF11B	ENST00000297350	p.S156Y	c.467	0.005609158	7.478	1
3775 MTR	ENST00000366577	p.A1050T	c.3148	0.02110897	6.566	1

3775 MTR	ENST00000366577	p.R1094C	c.3280	1.010554485	0	1
3775 MTR	ENST00000366577	p.R1094H	c.3281	1.010554485	0	1
3776 CNN1	ENST00000252456	p.Q121R	c.362	0.170873431	0	1
3776 CNN1	ENST00000252456	p.E31K	c.91	0.170873431	2.549	1
3777 KIF3B	ENST00000375712	p.G90E	c.269	0.020531744	0	1
3777 KIF3B	ENST00000375712	p.S304C	c.911	0.020531744	5.606	1
3778 REM2	ENST00000267396	p.Q110R	c.329	0.054933488	4.435	1
3778 REM2	ENST00000267396	p.R181P	c.542	0.234473707	0	1
3778 REM2	ENST00000267396	p.R212W	c.634	0.070463495	4.059	1
3778 REM2	ENST00000267396	p.A215T	c.643	0.141870519	2.963	1
3779 PTPRO	ENST00000281171	p.L914R	c.2741	0.071644512	4.803	1
3779 PTPRO	ENST00000281171	p.H1159Y	c.3475	1.035822256	0	1
3779 PTPRO	ENST00000281171	p.H1159P	c.3476	1.035822256	0	1
3780 ACVR2B	ENST00000352511	p.R383H	c.1148	0.006447699	7.277	1
3780 ACVR2B	ENST00000352511	p.M386I	c.1158	0.076415017	3.71	1
3780 ACVR2B	ENST00000352511	p.S470F	c.1409	0.082862716	0	1
3781 CTNND1	ENST00000428599	p.S669N	c.2006	1.060454771	0	1
3781 CTNND1	ENST00000428599	p.S669T	c.2006	1.060454771	0	1
3781 CTNND1	ENST00000428599	p.T714A	c.2140	0.120909541	4.048	1
3782 FES	ENST00000328850	p.A788V	c.2363	0.05855759	0	1
3782 FES	ENST00000328850	p.E813D	c.2439	0.05855759	4.094	1
3783 IPO13	ENST00000372343	p.F768I	c.2302	0.063109456	3.986	1
3783 IPO13	ENST00000372343	p.L797M	c.2389	0.063109456	0	1
3784 GRM1	ENST00000282753	p.R275C	c.823	1.018376426	0	1
3784 GRM1	ENST00000282753	p.R275H	c.824	1.018376426	0	1
3784 GRM1	ENST00000282753	p.L306I	c.916	0.036752852	5.766	1
3785 EPHA4	ENST00000281821	p.F136L	c.408	0.008275143	6.917	1
3785 EPHA4	ENST00000281821	p.R198H	c.593	0.008275143	0	1
3786 SERPINB1	ENST00000380739	p.R363W	c.1087	0.082526428	3.599	1
3786 SERPINB1	ENST00000380739	p.V229I	c.685	0.082526428	0	1
3787 CXCL1	ENST00000395761	p.T39A	c.115	0.181494785	2.462	1
3787 CXCL1	ENST00000395761	p.C69Y	c.206	0.181494785	0	1
3788 ITK	ENST00000422843	p.V409L	c.1225	0.019966639	9.443	1
3788 ITK	ENST00000422843	p.M410I	c.1230	0.121190122	0	1
3788 ITK	ENST00000422843	p.S499F	c.1496	0.045491327	4.566	1
3788 ITK	ENST00000422843	p.M503V	c.1507	0.099338757	3.689	1
3789 AZGP1	ENST00000292401	p.S208F	c.623	0.090370768	3.468	1
3789 AZGP1	ENST00000292401	p.V292L	c.874	0.090370768	0	1
3790 SNRPG	ENST00000449935	p.I50V	c.148	0.045499673	4.458	1
3790 SNRPG	ENST00000449935	p.V29M	c.85	0.045499673	0	1
3791 PRDX6	ENST00000340385	p.S38F	c.113	0.017086492	5.871	1
3791 PRDX6	ENST00000340385	p.R132C	c.394	0.017086492	0	1
3792 SERPINC1	ENST00000367698	p.A415D	c.1244	0.009024108	6.792	1
3792 SERPINC1	ENST00000367698	p.G228V	c.683	0.009024108	0	1
3793 ANPEP	ENST00000300060	p.D406N	c.1216	0.011957006	0	1
3793 ANPEP	ENST00000300060	p.L545M	c.1633	0.011957006	6.386	1
3794 SERPINA7	ENST00000327674	p.L346H	c.1037	0.154700717	0	1
3794 SERPINA7	ENST00000327674	p.V370F	c.1108	0.082929441	3.7	1
3794 SERPINA7	ENST00000327674	p.L372R	c.1115	0.053859894	4.36	1

3794 SERPINA7	ENST00000327674	p.S373L	c.1118	0.032707176	5.105	1
3795 STK4	ENST00000372806	p.F257V	c.769	0.089126607	3.488	1
3795 STK4	ENST00000372806	p.V281I	c.841	0.089126607	0	1
3796 ACP5	ENST00000412435	p.F42L	c.124	0.076256282	0	1
3796 ACP5	ENST00000412435	p.R85T	c.254	0.076256282	3.713	1
3797 IL16	ENST00000302987	p.P533Q	c.1598	0.207178155	2.4	1
3797 IL16	ENST00000302987	p.P577L	c.1730	0.111206444	3.419	1
3797 IL16	ENST00000302987	p.K613N	c.1839	0.282957431	0	1
3798 MGAM	ENST00000475668	p.S708F	c.2123	0.082755557	4.595	1
3798 MGAM	ENST00000475668	p.G808R	c.2422	1.041377778	0	1
3798 MGAM	ENST00000475668	p.G808V	c.2423	1.041377778	0	1
3800 CCL7	ENST00000200307	p.F48I	c.142	0.393027434	0	1
3800 CCL7	ENST00000200307	p.A86T	c.256	0.209581782	2.543	1
3800 CCL7	ENST00000200307	p.D87Y	c.259	0.259438107	2.175	1
3801 KCNU1	ENST00000399881	p.R713W	c.2137	2.011148551	0	3
3801 KCNU1	ENST00000399881	p.K749N	c.2247	0.033445652	6.487	1
3802 ANXA4	ENST00000394295	p.M101I	c.303	0.016345077	5.935	1
3802 ANXA4	ENST00000394295	p.R143C	c.427	0.016345077	0	1
3804 NCBP1	ENST00000375147	p.E378K	c.1132	0.139274206	0	1
3804 NCBP1	ENST00000375147	p.R329T	c.986	0.139274206	2.844	1
3805 EPRS	ENST00000366923	p.T1224I	c.3671	0.022655419	0	1
3805 EPRS	ENST00000366923	p.F1483L	c.4449	0.022655419	5.464	1
3806 CCNT2	ENST00000264157	p.I62V	c.184	0.003192716	8.291	1
3806 CCNT2	ENST00000264157	p.F77L	c.231	0.005875796	7.411	1
3806 CCNT2	ENST00000264157	p.M139L	c.415	0.009068512	0	1
3807 ST14	ENST00000278742	p.A394T	c.1180	0.094077922	3.41	1
3807 ST14	ENST00000278742	p.D437N	c.1309	0.094077922	0	1
3808 APC	ENST00000457016	p.W593L	c.1778	0.023003545	5.442	1
3808 APC	ENST00000457016	p.R640W	c.1918	0.023003545	0	1
3809 SUPT5H	ENST00000432763	p.R190Q	c.569	0.02261366	5.537	1
3809 SUPT5H	ENST00000432763	p.T192S	c.574	0.051038944	4.323	1
3809 SUPT5H	ENST00000432763	p.I225M	c.675	0.071500445	0	1
3810 TEK	ENST00000380036	p.I45T	c.134	0.024723041	5.338	1
3810 TEK	ENST00000380036	p.D77E	c.231	0.024723041	0	1
3811 MAP2K6	ENST00000590474	p.R83Q	c.248	1.020210995	9.696	2
3811 MAP2K6	ENST00000590474	p.R85P	c.254	1.070144128	0	1
3811 MAP2K6	ENST00000590474	p.R85Q	c.254	1.070144128	0	1
3811 MAP2K6	ENST00000590474	p.G123C	c.367	0.171065226	3.884	1
3812 PDCD10	ENST00000392750	p.R82C	c.244	0.124913387	3.001	1
3812 PDCD10	ENST00000392750	p.S115C	c.343	0.124913387	0	1
3813 ACTR8	ENST00000335754	p.H352R	c.1055	0.036676506	4.769	1
3813 ACTR8	ENST00000335754	p.R128H	c.383	0.036676506	0	1
3814 TCEB3	ENST00000418390	p.C610R	c.1828	0.006438766	7.279	1
3814 TCEB3	ENST00000418390	p.R617H	c.1850	0.005558842	7.491	1
3814 TCEB3	ENST00000418390	p.Y656C	c.1967	0.011997608	0	1
3815 GSTA2	ENST00000493422	p.A100V	c.299	0.027421104	0	1
3815 GSTA2	ENST00000493422	p.H159Q	c.477	0.018895451	6.492	1
3815 GSTA2	ENST00000493422	p.L163F	c.487	0.023595393	5.938	1
3816 CTRC	ENST00000375949	p.V86M	c.256	0.103808753	0	1

3816	CTRC	ENST00000375949	p.G167D	c.500	0.103808753	3.268	1
3817	ANPEP	ENST00000300060	p.G559W	c.1675	0.030649344	5.028	1
3817	ANPEP	ENST00000300060	p.D610N	c.1828	0.030649344	0	1
3818	APAF1	ENST0000051964	p.E417K	c.1249	0.028497911	6.133	1
3818	APAF1	ENST0000051964	p.D266Y	c.796	1.014248956	0	2
3819	ADH1B	ENST00000305046	p.A4T	c.10	0.123585576	3.274	1
3819	ADH1B	ENST00000305046	p.G5E	c.14	0.029710771	5.424	1
3819	ADH1B	ENST00000305046	p.E75D	c.225	0.298851527	0	1
3819	ADH1B	ENST00000305046	p.T3I	c.8	0.193991502	2.538	1
3820	ACO1	ENST00000379923	p.K387R	c.1160	0.015303442	0	1
3820	ACO1	ENST00000379923	p.D569N	c.1705	0.015303442	6.03	1
3821	ESYT2	ENST00000251527	p.W178C	c.534	0.065108964	0	1
3821	ESYT2	ENST00000251527	p.V214M	c.640	0.065108964	3.941	1
3822	EPB41L3	ENST00000342933	p.L145V	c.433	0.025016088	5.321	1
3822	EPB41L3	ENST00000342933	p.E198D	c.594	0.025016088	0	1
3823	PUF60	ENST00000526683	p.N468K	c.1404	0.290175979	2.785	1
3823	PUF60	ENST00000526683	p.R540C	c.1618	1.145087989	0	1
3823	PUF60	ENST00000526683	p.R540H	c.1619	1.145087989	0	1
3824	A2M	ENST00000318602	p.R732Q	c.2195	2.100437553	0	3
3824	A2M	ENST00000318602	p.P759T	c.2275	1.139665479	4.492	1
3824	A2M	ENST00000318602	p.P759H	c.2276	1.139665479	4.492	1
3824	A2M	ENST00000318602	p.D897H	c.2689	0.047364588	6.435	1
3825	TIGIT	ENST00000481065	p.E95K	c.283	0.018010724	5.795	1
3825	TIGIT	ENST00000481065	p.P156L	c.467	0.018010724	0	1
3826	MAP3K7	ENST00000369329	p.S478R	c.1434	0.070267433	3.831	1
3826	MAP3K7	ENST00000369329	p.R226Q	c.677	0.070267433	0	1
3827	DARS2	ENST00000361951	p.E385K	c.1153	0.026314467	0	1
3827	DARS2	ENST00000361951	p.L169V	c.505	0.026314467	5.248	1
3828	ACVR1	ENST00000409283	p.D185G	c.554	0.043194756	4.533	1
3828	ACVR1	ENST00000409283	p.S190L	c.569	0.009213723	6.762	1
3828	ACVR1	ENST00000409283	p.R258M	c.773	0.05240848	0	1
3829	CAND1	ENST00000545606	p.N610T	c.1829	0.008217983	0	1
3829	CAND1	ENST00000545606	p.P646L	c.1937	0.008217983	6.927	1
3830	NOVA1	ENST00000539517	p.R146C	c.436	0.102379587	0	1
3830	NOVA1	ENST00000539517	p.A196V	c.587	0.102379587	3.288	1
3831	BECN1	ENST00000361523	p.G334R	c.1000	0.051438772	4.281	1
3831	BECN1	ENST00000361523	p.Q309H	c.927	0.051438772	0	1
3832	EPHA3	ENST00000336596	p.S803L	c.2408	0.065199287	0	1
3832	EPHA3	ENST00000336596	p.F871V	c.2611	0.065199287	3.939	1
3833	SULT1B1	ENST00000310613	p.P47T	c.139	0.123846898	5.852	1
3833	SULT1B1	ENST00000310613	p.R131H	c.392	0.249598524	3.172	1
3833	SULT1B1	ENST00000310613	p.A133V	c.398	0.155098208	3.483	1
3833	SULT1B1	ENST00000310613	p.Y140F	c.419	0.09563041	9.278	1
3833	SULT1B1	ENST00000310613	p.W173S	c.518	0.307076554	0	1
3833	SULT1B1	ENST00000310613	p.G260W	c.778	0.03788652	8.153	1
3833	SULT1B1	ENST00000310613	p.F269L	c.807	0.027272325	8.803	1
3833	SULT1B1	ENST00000310613	p.F292L	c.876	0.200854663	3.608	1
3834	PACSIN2	ENST00000263246	p.A155T	c.463	0.045594386	0	1
3834	PACSIN2	ENST00000263246	p.K207N	c.621	0.045594386	4.455	1

3835 NCAM2	ENST00000400546	p.S608R	c.1822	0.025377633	5.566	1
3835 NCAM2	ENST00000400546	p.R631K	c.1892	0.215903065	2.306	1
3835 NCAM2	ENST00000400546	p.D634N	c.1900	0.035297292	5.09	1
3835 NCAM2	ENST00000400546	p.L640V	c.1918	0.020670274	5.862	1
3835 NCAM2	ENST00000400546	p.Y662C	c.1985	0.269882809	0	1
3836 ASB9	ENST00000380488	p.D220N	c.658	0.017348812	7.293	1
3836 ASB9	ENST00000380488	p.S257P	c.769	0.017181502	5.863	1
3836 ASB9	ENST00000380488	p.F290L	c.868	0.023558089	0	1
3837 CSF1R	ENST00000286301	p.A123T	c.367	0.030926771	0	1
3837 CSF1R	ENST00000286301	p.H165Y	c.493	0.030926771	5.015	1
3838 DPYSL5	ENST00000288699	p.D64E	c.192	0.015851921	6.109	1
3838 DPYSL5	ENST00000288699	p.H131Y	c.391	0.108631131	0	1
3838 DPYSL5	ENST00000288699	p.R189C	c.565	0.095507098	3.409	1
3839 GPD1	ENST00000301149	p.K169N	c.507	0.0353046	0	1
3839 GPD1	ENST00000301149	p.D195N	c.583	0.0353046	4.824	1
3840 PTPRN2	ENST00000404321	p.D831N	c.2491	0.131132036	2.955	1
3840 PTPRN2	ENST00000404321	p.R950S	c.2848	0.019011219	5.892	1
3840 PTPRN2	ENST00000404321	p.M983T	c.2948	0.145799978	0	1
3841 PDE10A	ENST00000539869	p.E258K	c.772	0.073454771	3.767	1
3841 PDE10A	ENST00000539869	p.Y287C	c.860	0.073454771	0	1
3842 UBE2D2	ENST00000398733	p.Q46E	c.136	0.008680537	0	1
3842 UBE2D2	ENST00000398733	p.A138V	c.413	0.008680537	6.848	1
3843 MTERF	ENST00000351870	p.R134H	c.401	0.203188088	5.482	1
3843 MTERF	ENST00000351870	p.F167L	c.499	1.025919508	0	2
3843 MTERF	ENST00000351870	p.R169W	c.505	0.165529059	8.14	1
3844 FKBP5	ENST00000536438	p.P47T	c.139	0.098609413	0	1
3844 FKBP5	ENST00000536438	p.A95V	c.284	0.071747318	3.842	1
3844 FKBP5	ENST00000536438	p.K98R	c.293	0.030889315	5.114	1
3845 TLR4	ENST00000355622	p.N282S	c.845	0.018262145	0	1
3845 TLR4	ENST00000355622	p.C306R	c.916	0.018262145	5.775	1
3846 C3	ENST00000245907	p.S1008L	c.3023	0.138346069	0	1
3846 C3	ENST00000245907	p.E1433G	c.4298	0.060073001	4.172	1
3846 C3	ENST00000245907	p.Y1447H	c.4339	0.087467652	3.593	1
3847 ITGAV	ENST00000261023	p.D249G	c.746	0.033169475	0	1
3847 ITGAV	ENST00000261023	p.A276T	c.826	0.033169475	4.914	1
3848 DDC	ENST00000444124	p.P81S	c.241	0.060082357	6.629	1
3848 DDC	ENST00000444124	p.L122R	c.365	0.060580614	4.045	1
3848 DDC	ENST00000444124	p.P301S	c.901	0.070684121	0	1
3849 PIK3CG	ENST00000496166	p.D378N	c.1132	0.0261327	5.258	1
3849 PIK3CG	ENST00000496166	p.L379I	c.1135	0.012430258	6.33	1
3849 PIK3CG	ENST00000496166	p.R397K	c.1190	0.032084048	4.962	1
3849 PIK3CG	ENST00000496166	p.K457T	c.1370	0.070647006	0	1
3850 PTPRC	ENST00000442510	p.D827N	c.2479	0.006702895	0	1
3850 PTPRC	ENST00000442510	p.A1203S	c.3607	0.006702895	7.221	1
3851 SMAD3	ENST00000327367	p.P393T	c.1177	1.034101996	0	1
3851 SMAD3	ENST00000327367	p.P393L	c.1178	1.034101996	0	1
3851 SMAD3	ENST00000327367	p.Y237C	c.710	0.068203992	4.874	1
3852 FLNB	ENST00000490882	p.S1854C	c.5560	0.138312169	2.854	1
3852 FLNB	ENST00000490882	p.P1931H	c.5792	0.138312169	0	1

3854	DYRK2	ENST00000344096	p.R274Q	c.821	0.048799156	0	1
3854	DYRK2	ENST00000344096	p.M299I	c.897	0.048799156	4.357	1
3855	EYA2	ENST00000327619	p.F350L	c.1050	0.114253812	3.155	1
3855	EYA2	ENST00000327619	p.R383C	c.1147	0.129967857	0	1
3855	EYA2	ENST00000327619	p.L320P	c.959	0.019688576	5.82	1
3856	CYP1A2	ENST00000343932	p.L51V	c.151	0.030564484	5.032	1
3856	CYP1A2	ENST00000343932	p.R79C	c.235	0.030564484	0	1
3857	RFX5	ENST00000452671	p.R35P	c.104	0.249653667	0	1
3857	RFX5	ENST00000452671	p.L64I	c.190	0.249653667	2.002	1
3858	ADAM22	ENST00000315984	p.I378T	c.1133	0.004886442	7.677	1
3858	ADAM22	ENST00000315984	p.Y240C	c.719	0.004886442	0	1
3859	ACADM	ENST00000370834	p.Y370C	c.1109	0.194445175	2.456	1
3859	ACADM	ENST00000370834	p.Q49P	c.146	0.020089431	6.382	1
3859	ACADM	ENST00000370834	p.R53C	c.157	0.026562534	5.476	1
3859	ACADM	ENST00000370834	p.E143Q	c.427	0.216709135	0	1
3860	HUWE1	ENST00000342160	p.L1325V	c.3973	0.025085543	0	1
3860	HUWE1	ENST00000342160	p.E1350K	c.4048	0.025085543	5.317	1
3861	TBC1D1	ENST00000261439	p.G1007R	c.3019	0.017062821	0	1
3861	TBC1D1	ENST00000261439	p.M1048V	c.3142	0.017062821	5.873	1
3862	SERPING1	ENST00000403558	p.I363M	c.1089	0.092321817	3.471	1
3862	SERPING1	ENST00000403558	p.P366R	c.1097	0.0258547	5.398	1
3862	SERPING1	ENST00000403558	p.R542G	c.1624	0.113898969	0	1
3863	NAALAD2	ENST00000534061	p.R360K	c.1079	0.235024751	8.907	1
3863	NAALAD2	ENST00000534061	p.R404I	c.1211	0.148934305	5.432	1
3863	NAALAD2	ENST00000534061	p.P584L	c.1751	1.025246722	0	2
3864	MAT2A	ENST00000306434	p.A55D	c.164	0.10083022	0	1
3864	MAT2A	ENST00000306434	p.G284E	c.851	0.10083022	3.31	1
3865	APOBEC3C	ENST00000361441	p.R122H	c.365	0.078454499	3.672	1
3865	APOBEC3C	ENST00000361441	p.R30Q	c.89	0.078454499	0	1
3866	IKBKB	ENST00000520810	p.L414F	c.1240	0.242154547	3.046	1
3866	IKBKB	ENST00000520810	p.D248Y	c.742	1.121077274	0	2
3867	MAP2K4	ENST00000415385	p.P367S	c.1099	0.242503871	3.909	1
3867	MAP2K4	ENST00000415385	p.R298H	c.893	1.073106968	0	2
3867	MAP2K4	ENST00000415385	p.V301F	c.901	0.112380123	7.257	1
3868	SLC4A1	ENST00000262418	p.R80C	c.238	2.121860625	0	1
3868	SLC4A1	ENST00000262418	p.R80H	c.239	2.121860625	0	2
3868	SLC4A1	ENST00000262418	p.S212L	c.635	0.023098813	7.021	1
3868	SLC4A1	ENST00000262418	p.E257K	c.769	0.31489931	3.252	1
3868	SLC4A1	ENST00000262418	p.A286S	c.856	0.037115787	6.765	1
3869	DUPD1	ENST00000338487	p.F119L	c.357	0.010964623	0	1
3869	DUPD1	ENST00000338487	p.R153W	c.457	0.010964623	6.511	1
3870	PANK3	ENST00000239231	p.Y356N	c.1066	0.022421086	5.479	1
3870	PANK3	ENST00000239231	p.R325H	c.974	0.022421086	0	1
3871	SI	ENST00000264382	p.V116F	c.346	0.017181502	0	1
3871	SI	ENST00000264382	p.S200R	c.600	0.017181502	5.863	1
3872	ANXA5	ENST00000296511	p.K76I	c.227	0.023373215	0	1
3872	ANXA5	ENST00000296511	p.D303V	c.908	0.023373215	5.419	1
3873	CD40LG	ENST00000370629	p.E156K	c.466	0.033169475	4.914	1
3873	CD40LG	ENST00000370629	p.E202Q	c.604	0.008566966	6.867	1

3873	CD40LG	ENST00000370629	p.R203I	c.608	0.009916179	6.656	1
3873	CD40LG	ENST00000370629	p.S236L	c.707	0.05165262	0	1
3874	ST14	ENST00000278742	p.G250E	c.749	1.160027986	0	2
3874	ST14	ENST00000278742	p.S254A	c.760	0.137685144	6.017	1
3874	ST14	ENST00000278742	p.N310K	c.930	0.395973264	2.79	1
3875	STIP1	ENST00000358794	p.N446S	c.1337	0.046391362	0	1
3875	STIP1	ENST00000358794	p.R480Q	c.1439	0.046391362	4.43	1
3876	RYR2	ENST00000360064	p.R412C	c.1234	1.044071811	0	1
3876	RYR2	ENST00000360064	p.R412H	c.1235	1.044071811	0	1
3876	RYR2	ENST00000360064	p.S124G	c.370	0.088143623	4.504	1
3877	TF	ENST00000402696	p.G383R	c.1147	0.013350152	0	1
3877	TF	ENST00000402696	p.Q623K	c.1867	0.013350152	6.227	1
3878	RNH1	ENST00000438658	p.S50C	c.149	0.010159689	6.621	1
3878	RNH1	ENST00000438658	p.E22Q	c.64	0.010159689	0	1
3879	PRLR	ENST00000382002	p.H197Y	c.589	1.053419567	0	1
3879	PRLR	ENST00000382002	p.H197Q	c.591	1.053419567	0	1
3879	PRLR	ENST00000382002	p.P227R	c.680	0.067311649	4.893	1
3879	PRLR	ENST00000382002	p.S228T	c.683	0.039527486	5.661	1
3880	U2AF2	ENST00000308924	p.K413R	c.1238	0.264988196	1.916	1
3880	U2AF2	ENST00000308924	p.E435in_frame_del	c.1302_1304	0.264988196	0	1
3881	NR4A2	ENST00000539077	p.T422I	c.1265	0.004325252	7.853	1
3881	NR4A2	ENST00000539077	p.D600H	c.1798	0.004325252	0	1
3882	EIF5	ENST00000216554	p.V42I	c.124	0.172478374	5.205	1
3882	EIF5	ENST00000216554	p.182in_frame_insP	c.532_533	1.256361595	0	2
3882	EIF5	ENST00000216554	p.R20S	c.58	0.576759227	2.125	1
3883	SULT1C3	ENST00000376700	p.S180T	c.538	0.011751592	6.411	1
3884	XRCC5	ENST00000392132	p.E621K	c.1861	1.055629733	0	2
3884	XRCC5	ENST00000392132	p.R643W	c.1927	0.111259467	4.168	1
3885	ENPEP	ENST00000265162	p.R655H	c.1964	0.031141883	0	1
3885	ENPEP	ENST00000265162	p.E687D	c.2061	0.031141883	5.005	1
3886	PDHA1	ENST00000379806	p.A250S	c.748	0.022987605	6.443	1
3886	PDHA1	ENST00000379806	p.G284D	c.851	1.011493803	0	2
3887	TUSC3	ENST00000503731	p.I65L	c.193	0.089374062	0	1
3887	TUSC3	ENST00000503731	p.A113S	c.337	0.089374062	3.484	1
3888	TUSC3	ENST00000503731	p.Q55K	c.163	0.117123352	4.741	1
3888	TUSC3	ENST00000503731	p.R82L	c.245	2.169430983	0	1
3888	TUSC3	ENST00000503731	p.R82Q	c.245	2.169430983	0	2
3888	TUSC3	ENST00000503731	p.P155S	c.463	0.401044622	2.921	1
3889	SOCS2	ENST00000551556	p.E98K	c.292	0.002720335	0	1
3889	SOCS2	ENST00000551556	p.D120H	c.358	0.002720335	8.522	1
3890	DOCK2	ENST00000256935	p.R36Q	c.107	1.009892814	0	2
3890	DOCK2	ENST00000256935	p.G57D	c.170	0.129368112	6.812	1
3890	DOCK2	ENST00000256935	p.P25S	c.73	0.113554259	9.976	1
3891	CTSZ	ENST00000217131	p.W68R	c.202	0.096887472	0	1
3891	CTSZ	ENST00000217131	p.A96T	c.286	0.069392292	3.891	1
3891	CTSZ	ENST00000217131	p.S262L	c.785	0.039110831	5.084	1
3892	PTPN6	ENST00000456013	p.G477S	c.1429	0.035378091	4.821	1
3892	PTPN6	ENST00000456013	p.R21L	c.62	0.035378091	0	1
3893	RCOR1	ENST00000262241	p.V395G	c.1184	0.007365504	0	1

3893 RCOR1	ENST00000262241	p.E439K	c.1315	0.007365504	7.085	1
3894 SERPINB3	ENST00000283752	p.E100K	c.298	0.003157503	8.307	1
3894 SERPINB3	ENST00000283752	p.T129S	c.386	0.007154169	7.127	1
3894 SERPINB3	ENST00000283752	p.Q154L	c.461	0.010311673	0	1
3895 PIP	ENST00000291009	p.K38N	c.114	0.013317294	0	1
3895 PIP	ENST00000291009	p.P95S	c.283	0.00298718	8.387	1
3895 PIP	ENST00000291009	p.K96E	c.286	0.010330114	6.597	1
3896 AIM2	ENST00000368130	p.V336F	c.1006	0.010401966	6.587	1
3896 AIM2	ENST00000368130	p.E299K	c.895	0.010401966	0	1
3897 TRPV4	ENST00000261740	p.T380M	c.1139	0.013994464	6.159	1
3897 TRPV4	ENST00000261740	p.A330T	c.988	0.013994464	0	1
3898 RAP1A	ENST00000436150	p.K5N	c.15	1.147419574	0	2
3898 RAP1A	ENST00000436150	p.E54K	c.160	0.294839148	2.762	1
3899 IGF2BP1	ENST00000290341	p.T517M	c.1550	0.108894274	3.199	1
3899 IGF2BP1	ENST00000290341	p.A545V	c.1634	0.108894274	0	1
3900 HBD	ENST00000380299	p.P37H	c.110	0.150760973	2.923	1
3900 HBD	ENST00000380299	p.P101S	c.301	0.013798797	9.281	1
3900 HBD	ENST00000380299	p.E102D	c.306	0.184402272	0	1
3900 HBD	ENST00000380299	p.R31K	c.92	0.057658868	4.295	1
3901 HSCB	ENST00000216027	p.S82F	c.245	0.002765968	8.498	1
3901 HSCB	ENST00000216027	p.V199A	c.596	0.002765968	0	1
3902 IKBKB	ENST00000520810	p.A357S	c.1069	0.148169534	0	1
3902 IKBKB	ENST00000520810	p.D385V	c.1154	0.005277243	7.566	1
3902 IKBKB	ENST00000520810	p.M456I	c.1368	0.142892292	2.807	1
3903 SNAP25	ENST00000304886	p.R59C	c.175	0.008537104	8.457	1
3903 SNAP25	ENST00000304886	p.R8H	c.23	2.002845701	0	3
3904 MGAM	ENST00000475668	p.P641T	c.1921	0.012250632	6.351	1
3904 MGAM	ENST00000475668	p.R275W	c.823	0.012250632	0	1
3905 USP7	ENST00000344836	p.P471L	c.1412	0.093234002	0	1
3905 USP7	ENST00000344836	p.F234V	c.700	0.093234002	3.423	1
3906 RCVRN	ENST00000226193	p.K84R	c.251	0.094797972	3.399	1
3906 RCVRN	ENST00000226193	p.E16K	c.46	0.094797972	0	1
3907 CTPS1	ENST00000372616	p.R164C	c.490	0.053474689	0	1
3907 CTPS1	ENST00000372616	p.R205K	c.614	0.053474689	4.225	1
3908 GIF	ENST00000257248	p.N185in_frame_del	c.557_555	0.008949359	6.804	1
3908 GIF	ENST00000257248	p.P290T	c.868	0.008949359	0	1
3909 C6	ENST00000263413	p.P649S	c.1945	1.013792234	0	1
3909 C6	ENST00000263413	p.P649L	c.1946	1.013792234	0	1
3909 C6	ENST00000263413	p.S671L	c.2012	0.027584469	6.18	1
3910 TNFSF12	ENST00000557233	p.S142N	c.425	0.00231303	8.756	1
3911 PTK6	ENST00000217185	p.G60V	c.179	0.186597298	0	1
3911 PTK6	ENST00000217185	p.D24N	c.70	0.186597298	2.422	1
3912 CWC22	ENST00000410053	p.R246Q	c.737	0.006129563	0	1
3912 CWC22	ENST00000410053	p.R284T	c.851	0.006129563	7.35	1
3913 PELI2	ENST00000267460	p.A158V	c.473	0.047202268	0	1
3913 PELI2	ENST00000267460	p.V190I	c.568	0.047202268	4.405	1
3914 FNTB	ENST00000447296	p.A339V	c.1016	0.025683756	5.283	1
3914 FNTB	ENST00000447296	p.G403S	c.1207	0.025683756	0	1
3915 RPL18A	ENST00000222247	p.R43C	c.127	0.005656008	8.466	1

3915 RPL18A	ENST00000222247	p.R83C	c.247	1.002828004	0	1
3915 RPL18A	ENST00000222247	p.R83H	c.248	1.002828004	0	1
3916 AGO2	ENST00000220592	p.P340L	c.1019	0.031620413	4.983	1
3916 AGO2	ENST00000220592	p.A289S	c.865	0.031620413	0	1
3917 SEMA7A	ENST00000261918	p.P400S	c.1198	0.03471478	0	1
3917 SEMA7A	ENST00000261918	p.A294T	c.880	0.028895727	5.113	1
3917 SEMA7A	ENST00000261918	p.G323S	c.967	0.005819053	7.425	1
3918 GDA	ENST00000238018	p.D172Y	c.514	0.279344718	0	1
3918 GDA	ENST00000238018	p.S215F	c.644	0.147898092	2.96	1
3918 GDA	ENST00000238018	p.S219T	c.655	0.170214354	2.729	1
3919 IL20RB	ENST00000329582	p.H129R	c.386	0.015964589	9.607	1
3919 IL20RB	ENST00000329582	p.E164Q	c.490	0.003330605	9.23	1
3919 IL20RB	ENST00000329582	p.A217T	c.649	1.002947647	0	2
3920 ITGAV	ENST00000261023	p.S501Y	c.1502	0.0522654	4.258	1
3920 ITGAV	ENST00000261023	p.Y545C	c.1634	0.01573368	5.99	1
3920 ITGAV	ENST00000261023	p.A570V	c.1709	0.06799908	0	1
3921 LINGO1	ENST00000355300	p.A186T	c.556	0.006091444	7.359	1
3921 LINGO1	ENST00000355300	p.L211M	c.631	0.010292594	0	1
3921 LINGO1	ENST00000355300	p.Y239N	c.715	0.00420115	7.895	1
3922 UBA3	ENST00000361055	p.L406P	c.1217	0.007188966	0	1
3922 UBA3	ENST00000361055	p.K434N	c.1302	0.007188966	7.12	1
3923 ARHGEF12	ENST00000397843	p.R993C	c.2977	0.122937759	0	1
3923 ARHGEF12	ENST00000397843	p.D1055V	c.3164	0.122937759	3.024	1
3924 TNPO1	ENST00000337273	p.S695Y	c.2084	0.008021012	0	1
3924 TNPO1	ENST00000337273	p.I720M	c.2160	0.008021012	6.962	1
3925 SPEN	ENST00000375759	p.R3536G	c.10606	0.057800999	4.461	1
3925 SPEN	ENST00000375759	p.S3537Y	c.10610_10611	0.285400978	1.873	1
3925 SPEN	ENST00000375759	p.V3614D	c.10841	0.318410294	0	1
3926 JHDM1D	ENST00000397560	p.W100R	c.298	0.006028438	7.374	1
3926 JHDM1D	ENST00000397560	p.K124M	c.371	0.006028438	0	1
3927 SULT1A1	ENST00000395609	p.G165E	c.494	0.089250249	3.486	1
3927 SULT1A1	ENST00000395609	p.P19L	c.56	0.089250249	0	1
3928 EPHA7	ENST00000369303	p.T814P	c.2440	0.088572337	0	1
3928 EPHA7	ENST00000369303	p.R877L	c.2630	0.088572337	3.497	1
3929 EPRS	ENST00000366923	p.D1191H	c.3571	0.022908074	0	1
3929 EPRS	ENST00000366923	p.I1225V	c.3673	0.022908074	5.448	1
3930 MC4R	ENST00000299766	p.L141H	c.422	0.084085451	3.572	1
3930 MC4R	ENST00000299766	p.M204L	c.610	0.084085451	0	1
3931 CUL5	ENST00000531427	p.V185I	c.553	0.060162153	4.055	1
3931 CUL5	ENST00000531427	p.R253Q	c.758	0.060162153	0	1
3932 PPP5C	ENST00000012443	p.V348L	c.1042	0.013257936	0	1
3932 PPP5C	ENST00000012443	p.R470Q	c.1409	0.013257936	6.237	1
3933 SULT2B1	ENST00000201586	p.F135L	c.405	0.04648793	4.427	1
3933 SULT2B1	ENST00000201586	p.K282N	c.846	0.04648793	0	1
3934 ACOT7	ENST00000377855	p.V348A	c.1043	0.015700997	5.993	1
3934 ACOT7	ENST00000377855	p.H265R	c.794	0.015700997	0	1
3935 CTSE	ENST00000361052	p.L375M	c.1123	0.055986322	4.238	1
3935 CTSE	ENST00000361052	p.F56L	c.168	0.059436731	4.147	1
3935 CTSE	ENST00000361052	p.C281R	c.841	0.109440405	0	1

3936 GSN	ENST00000373818	p.G404D	c.1211	0.109499789	3.191	1
3936 GSN	ENST00000373818	p.K660E	c.1978	0.109499789	0	1
3937 GSR	ENST00000221130	p.S187G	c.559	0.026681804	5.228	1
3937 GSR	ENST00000221130	p.P314S	c.940	0.026681804	0	1
3938 UBE3A	ENST00000397954	p.R649C	c.1945	0.238010785	0	1
3938 UBE3A	ENST00000397954	p.I682V	c.2044	0.114084013	3.318	1
3938 UBE3A	ENST00000397954	p.Q684H	c.2052	0.151549507	2.86	1
3939 MARK1	ENST00000366917	p.I354V	c.1060	0.009748175	0	1
3939 MARK1	ENST00000366917	p.P328R	c.983	0.006537705	7.257	1
3939 MARK1	ENST00000366917	p.D329N	c.985	0.003210469	8.283	1
3940 CKMT1B	ENST00000300283	p.L334V	c.1000	1.011312017	0	1
3940 CKMT1B	ENST00000300283	p.L334R	c.1001	1.011312017	0	1
3940 CKMT1B	ENST00000300283	p.L310F	c.930	0.022624034	6.466	1
3941 FGF23	ENST00000237837	p.H41Y	c.121_120	0.092333629	3.437	1
3941 FGF23	ENST00000237837	p.A72S	c.214	0.092333629	0	1
3943 FKBP4	ENST00000001008	p.G82R	c.244	0.02664484	5.23	1
3943 FKBP4	ENST00000001008	p.R157H	c.470	0.02664484	0	1
3944 EPHA3	ENST00000336596	p.P48S	c.142	0.064704058	3.95	1
3944 EPHA3	ENST00000336596	p.N79T	c.236	0.064704058	0	1
3945 IDH2	ENST00000330062	p.A370T	c.1108	0.034866854	4.842	1
3945 IDH2	ENST00000330062	p.T331M	c.992	0.034866854	0	1
3946 BRDT	ENST00000402388	p.K71N	c.213	0.045310839	0	1
3946 BRDT	ENST00000402388	p.E123D	c.369	0.045310839	4.464	1
3947 PKN1	ENST00000342216	p.A151V	c.452	1.168054374	0	2
3947 PKN1	ENST00000342216	p.A172D	c.515	0.336108749	2.573	1
3948 DCUN1D1	ENST00000292782	p.F89L	c.265	0.075939799	0	1
3948 DCUN1D1	ENST00000292782	p.I134M	c.402	0.075939799	3.719	1
3949 G6PD	ENST00000369620	p.A71V	c.212	0.025880333	5.272	1
3949 G6PD	ENST00000369620	p.Y112H	c.334	0.025880333	0	1
3950 ECH1	ENST00000221418	p.T147A	c.439	0.010416396	6.585	1
3950 ECH1	ENST00000221418	p.S296F	c.887	0.010416396	0	1
3951 MST1R	ENST00000296474	p.R504H	c.1511	0.080436828	0	1
3951 MST1R	ENST00000296474	p.E62K	c.184	0.080436828	3.636	1
3952 IL22RA1	ENST00000270800	p.G61E	c.182	0.010972226	6.51	1
3952 IL22RA1	ENST00000270800	p.E90K	c.268	0.010972226	0	1
3953 RHOA	ENST00000418115	p.F154C	c.461	0.009499057	0	1
3953 RHOA	ENST00000418115	p.T175M	c.524	0.009499057	6.718	1
3954 CUL1	ENST00000602748	p.S646L	c.1937	1.043888902	0	2
3954 CUL1	ENST00000602748	p.L673I	c.2017	0.087777805	4.51	1
3955 ERCC4	ENST00000311895	p.P846S	c.2536	0.294022813	0	1
3955 ERCC4	ENST00000311895	p.T885M	c.2654	0.294022813	1.766	1
3956 DUSP9	ENST00000370167	p.A220V	c.659	0.092141826	3.44	1
3956 DUSP9	ENST00000370167	p.F243V	c.727	0.092141826	0	1
3957 ASPA	ENST00000263080	p.K224E	c.670	0.146706022	2.769	1
3957 ASPA	ENST00000263080	p.T299S	c.895	0.146706022	0	1
3958 LTF	ENST00000231751	p.E356K	c.1066	2.049343368	0	3
3958 LTF	ENST00000231751	p.G159S	c.475	0.148030104	4.341	1
3959 LRP6	ENST00000261349	p.L635W	c.1904	0.076860367	6.652	1
3959 LRP6	ENST00000261349	p.R675Q	c.2024	3.00994371	0	4

3960 NRP2	ENST00000360409	p.R522C	c.1564	1.027185855	0	1
3960 NRP2	ENST00000360409	p.R522H	c.1565	1.027185855	0	1
3960 NRP2	ENST00000360409	p.P580L	c.1739	0.05437171	5.201	1
3961 UHRF2	ENST00000276893	p.Q4R	c.11	0.007850499	0	1
3961 UHRF2	ENST00000276893	p.G64E	c.191	0.007850499	6.993	1
3962 RPL19	ENST00000225430	p.R52C	c.154	0.002744958	0	1
3962 RPL19	ENST00000225430	p.D25H	c.73	0.002744958	8.509	1
3963 RAPH1	ENST00000374493	p.R377I	c.1130	0.017181502	0	1
3963 RAPH1	ENST00000374493	p.P525L	c.1574	0.017181502	5.863	1
3964 SKA1	ENST00000398452	p.V164A	c.491	0.002240443	8.802	1
3964 SKA1	ENST00000398452	p.R191K	c.572	0.0020602	8.923	1
3964 SKA1	ENST00000398452	p.T221S	c.662	0.004300643	0	1
3965 ITGAX	ENST00000562522	p.P633R	c.1898	0.012534081	0	1
3965 ITGAX	ENST00000562522	p.R1029W	c.3085	0.012534081	6.318	1
3966 CHAT	ENST00000337653	p.A557V	c.1670	1.094143154	0	2
3966 CHAT	ENST00000337653	p.A614V	c.1841	0.188286308	3.409	1
3967 OAS1	ENST00000445409	p.D13E	c.39	0.111028349	3.171	1
3967 OAS1	ENST00000445409	p.K204E	c.610	0.111028349	0	1
3968 UPP1	ENST00000341253	p.K54Q	c.160	0.179090018	0	1
3968 UPP1	ENST00000341253	p.P102L	c.305	0.170007179	2.572	1
3968 UPP1	ENST00000341253	p.R130L	c.389	0.03134964	6.517	1
3969 DCC	ENST00000442544	p.L588P	c.1763	0.158439065	0	1
3969 DCC	ENST00000442544	p.T617R	c.1850	0.158439065	2.658	1
3970 TNFSF11	ENST00000398795	p.M183I	c.549	0.01683958	0	1
3970 TNFSF11	ENST00000398795	p.F207L	c.621	0.01683958	5.892	1
3971 SENP7	ENST00000394095	p.E796K	c.2386	0.075729541	3.723	1
3971 SENP7	ENST00000394095	p.C930R	c.2788	0.075729541	0	1
3972 GBE1	ENST00000429644	p.D454Y	c.1360	0.011932168	6.389	1
3972 GBE1	ENST00000429644	p.D459N	c.1375	0.033077637	4.918	1
3972 GBE1	ENST00000429644	p.E609K	c.1825	0.045009805	0	1
3973 DNNT	ENST00000371174	p.A56S	c.166	0.234717937	0	1
3973 DNNT	ENST00000371174	p.I111K	c.332	0.234717937	2.091	1
3974 CSF1R	ENST00000286301	p.E557D	c.1671	0.041607863	0	1
3974 CSF1R	ENST00000286301	p.A767V	c.2300	0.041607863	4.587	1
3975 VPS25	ENST00000253794	p.P8L	c.23	0.01579878	7.182	1
3975 VPS25	ENST00000253794	p.Q10R	c.29	0.023519278	5.87	1
3975 VPS25	ENST00000253794	p.W33R	c.97	0.023984903	0	1
3976 SPSB1	ENST00000328089	p.S176F	c.527	0.014367969	6.121	1
3976 SPSB1	ENST00000328089	p.R223Q	c.668	0.014367969	0	1
3977 POLL	ENST00000370169	p.E569G	c.1706	0.012149157	0	1
3977 POLL	ENST00000370169	p.Q247H	c.741	0.012149157	6.363	1
3978 BMX	ENST00000348343	p.H390Q	c.1170	0.076975406	0	1
3978 BMX	ENST00000348343	p.K313Q	c.937	0.054265839	4.238	1
3978 BMX	ENST00000348343	p.M320V	c.958	0.025251249	5.382	1
3979 TYK2	ENST00000264818	p.H907N	c.2719	0.258827992	0	1
3979 TYK2	ENST00000264818	p.I960in_frame_del	c.2881_2879	0.042088401	7.564	1
3979 TYK2	ENST00000264818	p.R1027H	c.3080	0.125744438	3.185	1
3979 TYK2	ENST00000264818	p.D1041A	c.3122	0.196179435	2.8	1
3981 VPS33A	ENST00000267199	p.S414C	c.1241	0.02146467	5.634	1

3981 VPS33A	ENST00000267199	p.G419L	c.1256_1255	0.067253961	3.923	1
3981 VPS33A	ENST00000267199	p.P455L	c.1364	0.086063498	0	1
3982 NRG1	ENST00000523534	p.C258S	c.771_772	0.235043551	2.089	1
3982 NRG1	ENST00000523534	p.D287G	c.860	0.235043551	0	1
3983 EEF1E1	ENST00000379715	p.L102I	c.304	0.074273944	0	1
3983 EEF1E1	ENST00000379715	p.N141S	c.422	0.074273944	3.751	1
3984 RPA1	ENST00000254719	p.D366N	c.1096	0.118503371	4.077	1
3984 RPA1	ENST00000254719	p.A329T	c.985	1.059251685	0	2
3985 RPRD1B	ENST00000373433	p.R251C	c.751	0.049790006	0	1
3985 RPRD1B	ENST00000373433	p.K272T	c.815	0.049790006	4.328	1
3986 MPP1	ENST00000428488	p.Q49H	c.147	0.006939272	0	1
3987 GUSB	ENST00000304895	p.L501V	c.1501	1.070364912	0	2
3987 GUSB	ENST00000304895	p.Q524H	c.1572	0.140729823	3.829	1
3989 PILRB	ENST00000448382	p.P162L	c.485	0.034386832	0	1
3990 ADH1B	ENST00000305046	p.L201Q	c.602	0.007411596	7.076	1
3990 ADH1B	ENST00000305046	p.C212F	c.635	0.106431713	3.232	1
3990 ADH1B	ENST00000305046	p.E235K	c.703	0.11384331	0	1
3991 SETD7	ENST00000274031	p.D125N	c.373	0.146689366	0	1
3991 SETD7	ENST00000274031	p.H310Y	c.928	0.029263354	5.259	1
3991 SETD7	ENST00000274031	p.R320H	c.959	0.123723534	3.052	1
3992 BCKDHA	ENST00000595085	p.K85M	c.254	0.01694496	5.883	1
3992 BCKDHA	ENST00000595085	p.R114H	c.341	0.01694496	0	1
3993 GABBR2	ENST00000259455	p.T160M	c.479	0.070240583	3.853	1
3993 GABBR2	ENST00000259455	p.V162G	c.485	0.016014662	6.061	1
3993 GABBR2	ENST00000259455	p.R207M	c.620	0.084182153	0	1
3994 NCF4	ENST00000397147	p.E246K	c.736	0.065561833	3.931	1
3995 RBBP4	ENST00000373493	p.P283S	c.847	0.036246864	5.786	1
3995 RBBP4	ENST00000373493	p.E330K	c.988	1.018123432	0	2
3996 MAP2K1	ENST00000307102	p.D67N	c.199	0.010941846	6.514	1
3996 MAP2K1	ENST00000307102	p.R96K	c.287	0.010941846	0	1
3997 DDB1	ENST00000301764	p.L427F	c.1279	1.009156424	0	2
3997 DDB1	ENST00000301764	p.Q470K	c.1408	0.018312848	6.771	1
3998 POT1	ENST00000357628	p.P34L	c.101	0.175146447	0	1
3998 POT1	ENST00000357628	p.G272V	c.815	0.106098601	3.343	1
3998 POT1	ENST00000357628	p.R273W	c.817	0.040241661	4.824	1
3998 POT1	ENST00000357628	p.R276S	c.828	0.046818927	4.598	1
3999 ADH1A	ENST00000209668	p.I221F	c.661	0.007556846	7.048	1
3999 ADH1A	ENST00000209668	p.A222V	c.665	0.007259068	7.106	1
3999 ADH1A	ENST00000209668	p.E257K	c.769	0.014815914	0	1
4000 BLMH	ENST00000261714	p.D340G	c.1019	0.005982648	7.385	1
4000 BLMH	ENST00000261714	p.V394L	c.1180	0.005219039	7.582	1
4000 BLMH	ENST00000261714	p.F415L	c.1245	0.024213809	0	1
4000 BLMH	ENST00000261714	p.K310M	c.929	0.013012121	6.264	1
4001 RPL7A	ENST00000323345	p.T142A	c.424	0.001369628	9.512	1
4001 RPL7A	ENST00000323345	p.F169L	c.507	0.001369628	0	1
4003 VWF	ENST00000261405	p.I1825F	c.5473	0.096360994	0	1
4003 VWF	ENST00000261405	p.V1848M	c.5542	0.021805098	5.625	1
4003 VWF	ENST00000261405	p.L1851F	c.5551	0.077639856	3.716	1
4004 FOLH1	ENST00000256999	p.I456V	c.1366	0.011164017	6.485	1

4004 FOLH1	ENST00000256999	p.A535T	c.1603	0.011164017	0	1
4005 ARL1	ENST00000551671	p.K104N	c.312	0.008974206	6.8	1
4005 ARL1	ENST00000551671	p.V108I	c.322	0.003515633	8.152	1
4005 ARL1	ENST00000551671	p.A147G	c.440	0.012489838	0	1
4006 DDR2	ENST00000367921	p.S123I	c.368	0.026060345	0	1
4006 DDR2	ENST00000367921	p.V160A	c.479	0.026060345	5.262	1
4007 PDE5A	ENST00000354960	p.M419V	c.1255	0.154856087	2.691	1
4007 PDE5A	ENST00000354960	p.K457Q	c.1369	0.154856087	0	1
4008 EML1	ENST00000334192	p.G247E	c.740	1.019613625	0	1
4008 EML1	ENST00000334192	p.G247V	c.740	1.019613625	0	1
4008 EML1	ENST00000334192	p.V274L	c.820	0.03922725	5.672	1
4009 RUFY1	ENST00000319449	p.F671in_frame_del	c.2009_2011	0.138408073	2.853	1
4009 RUFY1	ENST00000319449	p.C692S	c.2074	0.138408073	0	1
4010 CYP2C8	ENST00000371270	p.R144H	c.431	0.038246377	5.774	1
4010 CYP2C8	ENST00000371270	p.C151Y	c.452	0.187390877	3.429	1
4010 CYP2C8	ENST00000371270	p.R186L	c.557	1.111121865	0	1
4010 CYP2C8	ENST00000371270	p.R186Q	c.557	1.111121865	0	1
4011 PAH	ENST0000053106	p.E381K	c.1141	0.093609908	0	1
4011 PAH	ENST0000053106	p.D143Y	c.427	0.055511295	4.228	1
4011 PAH	ENST0000053106	p.K274M	c.821	0.042393989	4.635	1
4012 SERPINI1	ENST00000446050	p.S111F	c.332	0.071943093	3.797	1
4012 SERPINI1	ENST00000446050	p.Q115H	c.345	0.012023494	6.378	1
4012 SERPINI1	ENST00000446050	p.A179V	c.536	0.083966587	0	1
4013 ACAA1	ENST00000333167	p.G410R	c.1228	0.069878866	3.839	1
4013 ACAA1	ENST00000333167	p.G97E	c.290	0.069878866	0	1
4014 TLR8	ENST00000311912	p.P450S	c.1348	1.012031831	0	1
4014 TLR8	ENST00000311912	p.P450L	c.1349	1.012031831	0	1
4014 TLR8	ENST00000311912	p.P516S	c.1546	0.024063662	6.377	1
4015 TTBK1	ENST00000259750	p.R204C	c.610	0.064928694	0	1
4015 TTBK1	ENST00000259750	p.K241N	c.723	0.064928694	3.945	1
4016 PDE1C	ENST00000396193	p.Y256S	c.767	0.105937773	4.593	1
4016 PDE1C	ENST00000396193	p.T314M	c.941	1.04143518	0	2
4017 PPP2R2A	ENST00000315985	p.G143V	c.428	0.094469996	0	1
4017 PPP2R2A	ENST00000315985	p.P165S	c.493	0.094469996	3.404	1
4018 F9	ENST00000218099	p.V257I	c.769	0.157903184	4.069	1
4018 F9	ENST00000218099	p.A279T	c.835	1.061889385	0	2
4018 F9	ENST00000218099	p.G280C	c.838	1.021678658	9.759	1
4018 F9	ENST00000218099	p.G280S	c.838	1.021678658	9.759	1
4019 XIAP	ENST00000371199	p.L53I	c.157	0.113668286	3.262	1
4019 XIAP	ENST00000371199	p.F64L	c.192	0.099860336	3.467	1
4019 XIAP	ENST00000371199	p.R29I	c.86	0.194674811	0	1
4020 AKT2	ENST00000424901	p.D388N	c.1162	0.013193764	6.244	1
4020 AKT2	ENST00000424901	p.A330V	c.989	0.013193764	0	1
4021 F9	ENST00000218099	p.V273I	c.817	0.112948238	0	1
4021 F9	ENST00000218099	p.R294Q	c.881	0.009426906	6.729	1
4021 F9	ENST00000218099	p.N295K	c.885	0.103521333	3.272	1
4022 HGF	ENST00000222390	p.Y544F	c.1631	0.040893065	4.612	1
4022 HGF	ENST00000222390	p.L565F	c.1693	0.040893065	0	1
4023 APAF1	ENST00000551964	p.R352I	c.1055	0.093234002	0	1

4023	APAF1	ENST00000551964	p.E447G	c.1340	0.093234002	3.423	1
4024	IL10	ENST00000423557	p.C80Y	c.239	0.014023595	6.156	1
4024	IL10	ENST00000423557	p.R128G	c.382	0.014023595	0	1
4025	CHEK2	ENST00000382580	p.K178T	c.533	0.012984555	6.467	1
4025	CHEK2	ENST00000382580	p.T181A	c.541	0.150331266	2.75	1
4025	CHEK2	ENST00000382580	p.N209S	c.626	0.159955068	0	1
4026	LHCGR	ENST00000294954	p.N195H	c.583	0.026333515	9.94	1
4026	LHCGR	ENST00000294954	p.T197M	c.590	0.082890864	0	1
4026	LHCGR	ENST00000294954	p.T222L	c.665_664	0.082094222	3.933	1
4026	LHCGR	ENST00000294954	p.P224T	c.670	0.027241779	5.93	1
4027	TXNL4B	ENST00000423037	p.Y94C	c.281	0.061554153	0	1
4027	TXNL4B	ENST00000423037	p.L115F	c.345	0.061554153	4.022	1
4028	SEC14L2	ENST00000312932	p.P386S	c.1156	0.065108964	0	1
4028	SEC14L2	ENST00000312932	p.P299S	c.895	0.065108964	3.941	1
4029	ACTN4	ENST00000252699	p.F555L	c.1665	0.169325182	2.657	1
4029	ACTN4	ENST00000252699	p.A569V	c.1706	0.078744282	3.879	1
4029	ACTN4	ENST00000252699	p.R633W	c.1897	0.226516949	0	1
4030	CHAT	ENST00000337653	p.H460L	c.1379	0.113282742	4.142	1
4030	CHAT	ENST00000337653	p.R323H	c.968	1.056641371	0	2
4031	DCUN1D2	ENST00000478244	p.A106V	c.317	0.017775082	6.814	1
4031	DCUN1D2	ENST00000478244	p.F157C	c.470	1.015461599	0	1
4031	DCUN1D2	ENST00000478244	p.F157L	c.471	1.015461599	0	1
4031	DCUN1D2	ENST00000478244	p.L217M	c.649	0.066253429	7.249	1
4032	ALKBH3	ENST00000302708	p.R213C	c.637	0.027603595	0	1
4032	ALKBH3	ENST00000302708	p.D240N	c.718	0.027603595	5.179	1
4033	3-Sep	ENST00000396426	p.W139L	c.416	1.014771908	0	2
4033	3-Sep	ENST00000396426	p.T181K	c.542	0.029543816	6.081	1
4034	HTRA1	ENST00000368984	p.Y238H	c.712	0.053772039	0	1
4034	HTRA1	ENST00000368984	p.S271L	c.812	0.053772039	4.217	1
4035	TPK1	ENST00000360057	p.G168R	c.502	0.104821023	0	1
4035	TPK1	ENST00000360057	p.E230K	c.688	0.104821023	3.254	1
4036	PRTFDC1	ENST00000320152	p.G145E	c.434	0.015700997	5.993	1
4036	PRTFDC1	ENST00000320152	p.R148M	c.443	0.049962864	4.323	1
4036	PRTFDC1	ENST00000320152	p.R177K	c.530	0.065663862	0	1
4037	GC	ENST00000504199	p.R371K	c.1112	0.137929218	0	1
4037	GC	ENST00000504199	p.P263T	c.787	0.137929218	2.858	1
4038	CREBBP	ENST00000262367	p.R1091C	c.3271	0.329191731	0	1
4038	CREBBP	ENST00000262367	p.D1143H	c.3427	0.329191731	1.603	1
4039	RASEF	ENST00000376447	p.F603I	c.1807	0.010836179	6.528	1
4039	RASEF	ENST00000376447	p.L630F	c.1888	0.010836179	0	1
4040	PTPN2	ENST00000309660	p.L193F	c.577	0.083042863	0	1
4040	PTPN2	ENST00000309660	p.G275E	c.824	0.083042863	3.59	1
4041	POR	ENST0000047222	p.H121in_frame_del	c.360_362	0.103091694	0	1
4042	UBE2L6	ENST00000287156	p.N52D	c.154	0.067498535	0	1
4042	UBE2L6	ENST00000287156	p.V104F	c.310	0.067498535	3.889	1
4043	AGR3	ENST00000310398	p.H67Y	c.199	0.010394758	6.588	1
4043	AGR3	ENST00000310398	p.E103K	c.307	0.010394758	0	1
4044	IL2	ENST00000226730	p.G47E	c.140	0.032419373	4.947	1
4044	IL2	ENST00000226730	p.N49K	c.147	0.013470993	6.214	1

4044 IL2	ENST00000226730	p.A93V	c.278	0.045890366	0	1
4045 TNPO3	ENST00000393245	p.K547M	c.1640	0.087503439	0	1
4045 TNPO3	ENST00000393245	p.D583N	c.1747	0.00728932	7.1	1
4045 TNPO3	ENST00000393245	p.S584F	c.1751	0.080214119	3.64	1
4046 BRD3	ENST00000303407	p.P80L	c.239	0.211100222	0	1
4046 BRD3	ENST00000303407	p.P23L	c.68	0.211100222	2.244	1
4047 RPL6	ENST00000424576	p.L150V	c.448	0.009806812	7.672	1
4047 RPL6	ENST00000424576	p.F193C	c.578	1.004903406	0	2
4048 MET	ENST00000318493	p.D1198Y	c.3592	0.015887104	6.976	1
4048 MET	ENST00000318493	p.R1297I	c.3890	1.018075111	0	1
4048 MET	ENST00000318493	p.R1297K	c.3890	1.018075111	0	1
4048 MET	ENST00000318493	p.Y1374C	c.4121	0.020263118	6.625	1
4049 PPP2R5C	ENST00000422945	p.E247K	c.739	0.160762185	3.637	1
4049 PPP2R5C	ENST00000422945	p.S290Y	c.869	1.080381093	0	2
4050 CTSB	ENST00000353047	p.I99M	c.297	0.321806056	4.591	1
4050 CTSB	ENST00000353047	p.T163A	c.487	0.25863935	6.657	1
4050 CTSB	ENST00000353047	p.R281S	c.841	1.051401969	0	1
4050 CTSB	ENST00000353047	p.R281H	c.842	1.051401969	0	1
4051 BLMH	ENST00000261714	p.E421K	c.1261	0.014033318	6.155	1
4051 BLMH	ENST00000261714	p.I75V	c.223	0.010280113	6.604	1
4051 BLMH	ENST00000261714	p.G145V	c.434	0.024313432	0	1
4052 CANT1	ENST00000591773	p.K131R	c.392	1.036071419	0	2
4052 CANT1	ENST00000591773	p.G192D	c.575	0.072142839	4.793	1
4053 NCAM1	ENST00000524665	p.V620I	c.1858	0.158867878	3.416	1
4053 NCAM1	ENST00000524665	p.T621N	c.1862	0.146523152	2.9	1
4053 NCAM1	ENST00000524665	p.K641I	c.1922	0.057559607	7.664	1
4053 NCAM1	ENST00000524665	p.G642R	c.1924	0.23258983	0	1
4054 DDB2	ENST00000256996	p.L167F	c.499	0.012895397	7.277	1
4054 DDB2	ENST00000256996	p.R192L	c.575	1.006447699	0	1
4054 DDB2	ENST00000256996	p.R192Q	c.575	1.006447699	0	1
4055 CA13	ENST00000321764	p.R81C	c.241	0.141610486	2.82	1
4055 CA13	ENST00000321764	p.S184F	c.551	0.141610486	0	1
4056 MB21D1	ENST00000370315	p.V234A	c.701	0.044842173	4.479	1
4056 MB21D1	ENST00000370315	p.S326L	c.977	0.044842173	0	1
4057 PRKCI	ENST00000295797	p.S544Y	c.1631	0.089030173	4.509	1
4057 PRKCI	ENST00000295797	p.R278C	c.832	1.071048716	0	2
4057 PRKCI	ENST00000295797	p.L315F	c.943	0.055450269	5.204	1
4058 EIF2AK2	ENST00000395127	p.I405T	c.1214	0.026607928	0	1
4058 EIF2AK2	ENST00000395127	p.D470Y	c.1408	0.026607928	5.232	1
4059 HMBOX1	ENST00000524238	p.R268G	c.802	1.012691444	0	1
4059 HMBOX1	ENST00000524238	p.R268Q	c.803	1.012691444	0	1
4059 HMBOX1	ENST00000524238	p.Q290R	c.869	0.025382887	6.3	1
4060 PRKCA	ENST00000413366	p.D503G	c.1508	0.082412101	0	1
4060 PRKCA	ENST00000413366	p.V526I	c.1576	0.082412101	3.601	1
4061 CLK3	ENST00000395066	p.R279H	c.836	0.023373215	0	1
4061 CLK3	ENST00000395066	p.S329Y	c.986	0.023373215	5.419	1
4062 CYP46A1	ENST00000261835	p.P390L	c.1169	0.017445515	5.841	1
4062 CYP46A1	ENST00000261835	p.R76W	c.226	0.017445515	0	1
4063 VPS35	ENST00000299138	p.H565R	c.1694	0.004268663	7.872	1

4063 VPS35	ENST00000299138	p.G587R	c.1759	0.004268663	0	1
4064 ARHGDI B	ENST00000541644	p.R169Q	c.506	0.024170233	0	1
4064 ARHGDI B	ENST00000541644	p.S194L	c.581	0.010387556	6.589	1
4064 ARHGDI B	ENST00000541644	p.E198G	c.593	0.013782678	6.181	1
4065 C12orf5	ENST00000179259	p.R88W	c.262	1.159320078	0	1
4065 C12orf5	ENST00000179259	p.R88Q	c.263	1.159320078	0	1
4065 C12orf5	ENST00000179259	p.Q25P	c.74	0.318640157	2.65	1
4066 CAMK1D	ENST00000378847	p.E36K	c.106	0.006647373	0	1
4066 CAMK1D	ENST00000378847	p.Y95H	c.283	0.006647373	7.233	1
4067 PPP2CA	ENST00000481195	p.V87I	c.259	0.013830528	0	1
4067 PPP2CA	ENST00000481195	p.Y265N	c.793	0.013830528	6.176	1
4068 IFNW1	ENST00000380229	p.D58Y	c.172	0.003639611	0	1
4068 IFNW1	ENST00000380229	p.G149E	c.446	0.003639611	8.102	1
4069 CYP11A1	ENST00000268053	p.A236V	c.707	0.008644511	0	1
4069 CYP11A1	ENST00000268053	p.D265N	c.793	0.008644511	6.854	1
4070 GRHPR	ENST00000607784	p.E223K	c.667	0.173551457	0	1
4070 GRHPR	ENST00000607784	p.D247Y	c.739	0.141437834	3.057	1
4070 GRHPR	ENST00000607784	p.V248I	c.742	0.057779509	4.277	1
4070 GRHPR	ENST00000607784	p.P273R	c.818	0.01689455	9.108	1
4071 GZMM	ENST00000264553	p.R37C	c.109	0.168988854	0	1
4071 GZMM	ENST00000264553	p.S146N	c.437	0.168988854	2.565	1
4072 SERPINB5	ENST00000382771	p.M172I	c.516	0.086241957	0	1
4072 SERPINB5	ENST00000382771	p.K224R	c.671	0.07780464	3.684	1
4072 SERPINB5	ENST00000382771	p.L226I	c.676	0.008437317	6.889	1
4073 LIG4	ENST00000356922	p.A67T	c.199	0.007045901	0	1
4073 LIG4	ENST00000356922	p.L194V	c.580	0.007045901	7.149	1
4074 TRAF4	ENST00000262395	p.T387I	c.1160	0.016064279	5.96	1
4074 TRAF4	ENST00000262395	p.E463K	c.1387	0.016064279	0	1
4075 PMVK	ENST00000368467	p.R189H	c.566	0.048562954	0	1
4075 PMVK	ENST00000368467	p.L33H	c.98	0.048562954	4.364	1
4076 ERBB4	ENST00000342788	p.F401S	c.1202	0.077794515	3.743	1
4076 ERBB4	ENST00000342788	p.L432M	c.1294	0.116294813	0	1
4076 ERBB4	ENST00000342788	p.G456E	c.1367	0.044715427	4.587	1
4077 ALDH2	ENST00000261733	p.A150V	c.449_450	0.007855942	0	1
4077 ALDH2	ENST00000261733	p.P198S	c.592	0.007855942	6.992	1
4078 CDC42	ENST00000344548	p.D65V	c.194	0.021079727	5.568	1
4078 CDC42	ENST00000344548	p.H104Y	c.310	0.021079727	0	1
4079 AIM2	ENST00000368130	p.L255F	c.763	0.098216966	0	1
4079 AIM2	ENST00000368130	p.N320H	c.958	0.070205541	3.875	1
4079 AIM2	ENST00000368130	p.G321R	c.961	0.03210904	5.056	1
4080 EPHA4	ENST00000281821	p.K376M	c.1127	0.007427024	0	1
4080 EPHA4	ENST00000281821	p.Y126H	c.376	0.007427024	7.073	1
4081 CHKB	ENST00000406938	p.E119Q	c.355	0.0945355	3.403	1
4081 CHKB	ENST00000406938	p.R143Q	c.428	0.0945355	0	1
4082 C6	ENST00000263413	p.E538K	c.1612	0.038875364	5.685	1
4082 C6	ENST00000263413	p.G113W	c.337	1.019437682	0	1
4082 C6	ENST00000263413	p.G113V	c.338	1.019437682	0	1
4083 AMBP	ENST00000265132	p.W44G	c.130	1.078237279	0	1
4083 AMBP	ENST00000265132	p.W44L	c.131	1.078237279	0	1

4083	AMBP	ENST00000265132	p.Y151H	c.451	0.156474557	3.676	1
4084	LDLR	ENST00000557933	p.P526S	c.1576	1.019464647	0	2
4084	LDLR	ENST00000557933	p.L571F	c.1711	0.038929294	5.683	1
4085	HSD11B1	ENST00000367027	p.G45E	c.134	1.205897754	3.28	1
4085	HSD11B1	ENST00000367027	p.G45V	c.134	1.205897754	3.28	1
4085	HSD11B1	ENST00000367027	p.E69K	c.205	1.205897754	0	2
4086	WWP1	ENST00000517970	p.F849L	c.2545	0.169409801	0	1
4086	WWP1	ENST00000517970	p.S887N	c.2660	0.155547003	2.708	1
4086	WWP1	ENST00000517970	p.R893C	c.2677	0.018872706	5.933	1
4087	PARP12	ENST00000263549	p.V526F	c.1576	0.002364908	8.724	1
4087	PARP12	ENST00000263549	p.S680T	c.2038	0.002364908	0	1
4088	RANBP2	ENST00000283195	p.M2075L	c.6223	0.129318448	0	1
4088	RANBP2	ENST00000283195	p.A2124T	c.6370	0.129318448	2.951	1
4089	CR2	ENST00000367057	p.R846C	c.2536	0.036957219	0	1
4089	CR2	ENST00000367057	p.H867N	c.2599	0.036957219	4.758	1
4090	API5	ENST00000531273	p.R355Q	c.1064	0.124567533	3.005	1
4090	API5	ENST00000531273	p.S437N	c.1310	0.124567533	0	1
4091	GTF2F1	ENST00000394456	p.Q58H	c.174	0.135465746	2.884	1
4091	GTF2F1	ENST00000394456	p.V87I	c.259	0.135465746	0	1
4092	FDPS	ENST00000356657	p.R178C	c.532	0.241374314	0	1
4092	FDPS	ENST00000356657	p.Y265F	c.794	0.173005196	2.644	1
4092	FDPS	ENST00000356657	p.K323T	c.968	0.094411406	3.619	1
4093	RBM12	ENST00000359646	p.A588T	c.1762	0.008602669	0	1
4093	RBM12	ENST00000359646	p.H617Y	c.1849	0.008602669	6.861	1
4094	VAV1	ENST00000602142	p.E391D	c.1173	0.012065236	0	1
4094	VAV1	ENST00000602142	p.D439Y	c.1315	0.012065236	6.373	1
4095	APC	ENST00000457016	p.S568N	c.1703	0.008949359	0	1
4095	APC	ENST00000457016	p.D605N	c.1813	0.008949359	6.804	1
4096	GLS	ENST00000320717	p.H475Y	c.1423	0.020897006	0	1
4096	GLS	ENST00000320717	p.K539N	c.1617	0.011541704	6.437	1
4096	GLS	ENST00000320717	p.H306L	c.917	0.009355302	6.74	1
4097	PRPSAP1	ENST00000446526	p.T339N	c.1016	0.012387252	6.335	1
4097	PRPSAP1	ENST00000446526	p.L361I	c.1081	0.012387252	0	1
4098	TLR3	ENST00000296795	p.M362I	c.1086	0.011319861	6.465	1
4098	TLR3	ENST00000296795	p.L313V	c.937	0.011319861	0	1
4099	AADAT	ENST00000353187	p.F6L	c.18	0.029891835	8.868	1
4099	AADAT	ENST00000353187	p.T8M	c.23	0.164549634	0	1
4099	AADAT	ENST00000353187	p.N130D	c.388	0.151407493	2.933	1
4099	AADAT	ENST00000353187	p.P131H	c.392	0.035587761	4.99	1
4100	RGS8	ENST00000258302	p.L119V	c.355	0.130760617	3.935	1
4100	RGS8	ENST00000258302	p.S157F	c.470	1.065380309	0	1
4100	RGS8	ENST00000258302	p.S157Y	c.470	1.065380309	0	1
4101	SAT1	ENST00000379270	p.H69R	c.206	0.104748392	3.255	1
4101	SAT1	ENST00000379270	p.R19W	c.55	0.104748392	0	1
4102	CR1	ENST00000367052	p.I1854M	c.5562	0.005912566	7.402	1
4102	CR1	ENST00000367052	p.H1902D	c.5704	0.005912566	0	1
4103	ASL	ENST00000304874	p.H356Y	c.1066	0.020200759	7.401	1
4103	ASL	ENST00000304874	p.R146W	c.436	1.005916665	0	1
4103	ASL	ENST00000304874	p.R146Q	c.437	1.005916665	0	1

4104	ACTN2	ENST00000542672	p.M675L	c.2023	0.028537445	5.131	1
4104	ACTN2	ENST00000542672	p.I742T	c.2225	0.028537445	0	1
4105	FAIM	ENST00000338446	p.W42R	c.124	0.130942016	2.933	1
4105	FAIM	ENST00000338446	p.L120F	c.358	0.130942016	0	1
4106	NF2	ENST00000432151	p.C50Y	c.149	0.007134361	0	1
4106	NF2	ENST00000432151	p.P87L	c.260	0.007134361	7.131	1
4107	PNPT1	ENST00000447944	p.Q74R	c.221	0.049790006	4.328	1
4107	PNPT1	ENST00000447944	p.L168P	c.503	0.049790006	0	1
4108	NLGN4X	ENST00000381095	p.P392H	c.1175	0.103163176	0	1
4108	NLGN4X	ENST00000381095	p.R436W	c.1306	0.103163176	3.277	1
4109	KLRC1	ENST00000359151	p.F194V	c.580	0.002879432	8.44	1
4109	KLRC1	ENST00000359151	p.R215Q	c.644	0.002879432	0	1
4110	XDH	ENST00000379416	p.I403T	c.1208	0.013139006	6.25	1
4110	XDH	ENST00000379416	p.F299V	c.895	0.013139006	0	1
4111	PGC	ENST00000373025	p.F74C	c.221	0.007314627	7.095	1
4111	PGC	ENST00000373025	p.G223R	c.667	0.007314627	0	1
4112	FLT3	ENST00000380982	p.A814T	c.2440	1.254193668	0	1
4112	FLT3	ENST00000380982	p.A814V	c.2441	1.254193668	0	1
4112	FLT3	ENST00000380982	p.E883K	c.2647	1.254193668	2.976	2
4113	FBXW7	ENST00000603548	p.G368E	c.1103	0.369590608	2.436	1
4113	FBXW7	ENST00000603548	p.R658Q	c.1973	1.184795304	0	2
4114	IL6	ENST00000420258	p.L146P	c.437	0.500831846	0	1
4114	IL6	ENST00000420258	p.F176L	c.528	0.298860828	2.081	1
4114	IL6	ENST00000420258	p.Y179F	c.536	0.318639104	1.966	1
4115	RAF1	ENST00000442415	p.I396L	c.1186	0.032374461	4.949	1
4115	RAF1	ENST00000442415	p.I439V	c.1315	0.032374461	0	1
4116	FCGRT	ENST00000221466	p.S39P	c.115	0.020235047	5.627	1
4116	FCGRT	ENST00000221466	p.P40A	c.118	0.010096506	6.63	1
4116	FCGRT	ENST00000221466	p.F102Y	c.305	0.030331553	0	1
4117	TLR3	ENST00000296795	p.I422T	c.1265	0.011981896	6.383	1
4117	TLR3	ENST00000296795	p.L469V	c.1405	0.011981896	0	1
4118	GLUD1	ENST00000277865	p.Y193C	c.578	0.009284243	0	1
4118	GLUD1	ENST00000277865	p.R231Q	c.692	0.009284243	6.751	1
4119	HCK	ENST00000375852	p.A425D	c.1274	0.010828671	6.529	1
4119	HCK	ENST00000375852	p.P498L	c.1493	0.010828671	0	1
4120	PVRL4	ENST00000368012	p.P177L	c.530	0.017286457	0	1
4120	PVRL4	ENST00000368012	p.R200S	c.598	0.01110998	6.492	1
4120	PVRL4	ENST00000368012	p.A203V	c.608	0.006176477	7.339	1
4121	TBRG1	ENST00000441174	p.M225L	c.673	0.035599481	0	1
4121	TBRG1	ENST00000441174	p.E270D	c.810	0.035599481	4.812	1
4122	NR1I2	ENST00000337940	p.G215R	c.643	0.013849714	6.174	1
4122	NR1I2	ENST00000337940	p.G256W	c.766	0.013849714	0	1
4123	DPYSL5	ENST00000288699	p.S252L	c.755	0.027316971	5.353	1
4123	DPYSL5	ENST00000288699	p.G254R	c.760	0.119317203	3.102	1
4123	DPYSL5	ENST00000288699	p.Y309S	c.926	0.140934875	0	1
4124	ITGB3	ENST00000559488	p.R378C	c.1132	0.192472978	4.875	1
4124	ITGB3	ENST00000559488	p.G418E	c.1253	1.038247606	0	2
4124	ITGB3	ENST00000559488	p.Q108R	c.323	0.146812413	7.906	1
4125	PIK3C3	ENST00000262039	p.K404N	c.1212	0.103982553	3.28	1

4125 PIK3C3	ENST00000262039	p.E500K	c.1498	0.117768802	0	1
4125 PIK3C3	ENST00000262039	p.Q645R	c.1934	0.030125212	6.638	1
4125 PIK3C3	ENST00000262039	p.T675I	c.2024	0.032267428	7.709	1
4126 UBE2D3	ENST00000321805	p.N7S	c.20	0.352565326	3.089	1
4126 UBE2D3	ENST00000321805	p.M30I	c.90	2.117521775	0	3
4127 XDH	ENST00000379416	p.E880K	c.2638	0.028438713	5.136	1
4127 XDH	ENST00000379416	p.A1079T	c.3235	0.028438713	0	1
4128 PCK1	ENST00000319441	p.R137H	c.410	0.016319224	6.114	1
4128 PCK1	ENST00000319441	p.S195F	c.584	0.144746073	0	1
4128 PCK1	ENST00000319441	p.S230F	c.689	0.132189591	2.94	1
4129 HTRA2	ENST00000258080	p.R360C	c.1078	0.079549683	3.652	1
4129 HTRA2	ENST00000258080	p.R432Q	c.1295	0.079549683	0	1
4130 CTNNB1	ENST00000349496	p.G367V	c.1100	0.007031265	7.152	1
4130 CTNNB1	ENST00000349496	p.L402F	c.1204	0.007031265	0	1
4131 PTBP1	ENST00000356948	p.T481M	c.1442	0.072644632	0	1
4131 PTBP1	ENST00000356948	p.A530V	c.1589	0.072644632	3.783	1
4132 RPL10	ENST00000344746	p.F46C	c.137	0.010301513	6.601	1
4132 RPL10	ENST00000344746	p.K169N	c.507	0.010301513	0	1
4133 PBRM1	ENST00000296302	p.E184D	c.552	0.021493195	7.746	1
4133 PBRM1	ENST00000296302	p.A192T	c.574	0.065145859	4.544	1
4133 PBRM1	ENST00000296302	p.K231R	c.692	0.013834508	8.622	1
4133 PBRM1	ENST00000296302	p.I245F	c.733	0.389772408	1.761	1
4133 PBRM1	ENST00000296302	p.I252R	c.755	0.312956424	2.154	1
4133 PBRM1	ENST00000296302	p.F280V	c.838	0.569795433	0	1
4134 ALPP	ENST00000392027	p.D207N	c.619	1.193937602	0	2
4134 ALPP	ENST00000392027	p.T210M	c.629	0.195255997	5.804	1
4134 ALPP	ENST00000392027	p.R249S	c.747	0.416589806	2.799	1
4134 ALPP	ENST00000392027	p.D251Y	c.751	0.104243649	4.95	1
4135 EGLN1	ENST00000366641	p.R370S	c.1108	0.181872585	2.459	1
4135 EGLN1	ENST00000366641	p.P317S	c.949	0.181872585	0	1
4136 CD38	ENST00000226279	p.V80A	c.239	0.017169597	5.864	1
4136 CD38	ENST00000226279	p.N182S	c.545	0.046836538	0	1
4136 CD38	ENST00000226279	p.N229K	c.687	0.029666941	5.075	1
4137 CARTPT	ENST00000296777	p.G85S	c.253	0.366021424	1.45	1
4137 CARTPT	ENST00000296777	p.K114N	c.342	0.366021424	0	1
4138 HEXB	ENST00000261416	p.E384D	c.1152	0.049790006	0	1
4138 HEXB	ENST00000261416	p.E407Q	c.1219	0.049790006	4.328	1
4139 MAPK10	ENST00000359221	p.K391T	c.1172	0.126198912	3.009	1
4139 MAPK10	ENST00000359221	p.K396E	c.1186	0.041301567	5.974	1
4139 MAPK10	ENST00000359221	p.F139L	c.415	0.14013178	0	1
4140 CAMK4	ENST00000512453	p.H98R	c.293	0.054825847	4.189	1
4140 CAMK4	ENST00000512453	p.A151E	c.452	0.054825847	0	1
4141 MMP1	ENST00000315274	p.V426E	c.1278_1277	0.011125392	0	1
4141 MMP1	ENST00000315274	p.D285E	c.855	0.011125392	6.49	1
4142 CAPN2	ENST00000295006	p.C374Y	c.1121	0.007905103	6.983	1
4142 CAPN2	ENST00000295006	p.T428A	c.1282	0.007905103	0	1
4143 STAT1	ENST00000409465	p.R405Q	c.1214	0.109196612	0	1
4143 STAT1	ENST00000409465	p.D165A	c.494	0.109196612	3.195	1
4144 GDA	ENST00000238018	p.L353F	c.1057	0.047728672	4.389	1

4144 GDA	ENST00000238018	p.G280S	c.838	0.047728672	0	1
4145 SNRNP200	ENST00000323853	p.D1795Y	c.5383	0.019586453	5.674	1
4145 SNRNP200	ENST00000323853	p.E1830D	c.5490	0.019586453	0	1
4146 BTK	ENST00000308731	p.S289N	c.866	0.048060651	5.379	1
4146 BTK	ENST00000308731	p.R332H	c.995	1.024030325	0	2
4147 IFI16	ENST00000295809	p.Q681K	c.2041	0.022797193	0	1
4147 IFI16	ENST00000295809	p.G748W	c.2242	0.022797193	5.455	1
4148 TLR2	ENST00000260010	p.Y647H	c.1939	0.099373156	0	1
4148 TLR2	ENST00000260010	p.R677W	c.2029	0.099373156	3.331	1
4149 PARP2	ENST00000250416	p.E489K	c.1465	0.190782401	3.39	1
4149 PARP2	ENST00000250416	p.R570W	c.1708	1.095391201	0	1
4149 PARP2	ENST00000250416	p.R570P	c.1709	1.095391201	0	1
4150 PARP3	ENST00000398755	p.H364Y	c.1090	0.147215349	0	1
4150 PARP3	ENST00000398755	p.E537D	c.1611	0.147215349	2.764	1
4151 CCNK	ENST00000389879	p.P35F	c.103_104	0.104024842	0	1
4151 CCNK	ENST00000389879	p.H85Y	c.253	0.104024842	3.265	1
4152 MARK3	ENST00000335102	p.Q161H	c.483	0.040246301	4.635	1
4152 MARK3	ENST00000335102	p.M213V	c.637	0.040246301	0	1
4153 TYMP	ENST00000252029	p.E51K	c.151	0.02686739	5.218	1
4153 TYMP	ENST00000252029	p.E86Q	c.256	0.02686739	0	1
4154 IQSEC1	ENST00000429247	p.R812W	c.2434	0.003412394	0	1
4154 IQSEC1	ENST00000429247	p.F839L	c.2517	0.003412394	8.195	1
4155 TATDN3	ENST00000532324	p.A38V	c.113	0.005154328	0	1
4155 TATDN3	ENST00000532324	p.A268V	c.803	0.005154328	7.6	1
4156 MYH7	ENST00000355349	p.R403W	c.1207	0.035673585	4.809	1
4156 MYH7	ENST00000355349	p.G607D	c.1820	0.035673585	0	1
4157 PAH	ENST00000553106	p.E182G	c.545	0.083100444	3.589	1
4157 PAH	ENST00000553106	p.G272R	c.814	0.083100444	0	1
4158 BRPF1	ENST00000383829	p.E700K	c.2098	0.120658378	0	1
4158 BRPF1	ENST00000383829	p.R739W	c.2215	0.120658378	3.051	1
4159 ADRB2	ENST00000305988	p.T118M	c.353	0.009978232	0	1
4159 ADRB2	ENST00000305988	p.S262F	c.785	0.009978232	6.647	1
4160 C9orf89	ENST00000466409	p.A83G	c.248_249	0.186080657	2.426	1
4160 C9orf89	ENST00000466409	p.Q12E	c.34	0.186080657	0	1
4161 EGLN1	ENST00000366641	p.R344Q	c.1031	0.057871626	0	1
4161 EGLN1	ENST00000366641	p.Y384H	c.1150	0.057871626	4.111	1
4162 TTN	ENST00000589042	p.S24636F	c.73907	0.084377374	0	1
4162 TTN	ENST00000589042	p.T24672N	c.74015	0.084377374	3.567	1
4163 PPFIA2	ENST00000549396	p.Q1036H	c.3108	0.008021012	6.962	1
4163 PPFIA2	ENST00000549396	p.K1064E	c.3190	0.008021012	0	1
4164 TIMP2	ENST00000536189	p.S17F	c.51_50	0.006872258	7.185	1
4165 RIMBP2	ENST00000261655	p.P193T	c.577	0.242658617	2.043	1
4165 RIMBP2	ENST00000261655	p.L216I	c.646	0.242658617	0	1
4166 SEC24B	ENST00000504968	p.L871V	c.2611	0.040414029	4.629	1
4166 SEC24B	ENST00000504968	p.R1128C	c.3382	0.040414029	0	1
4167 TRNT1	ENST00000251607	p.M89I	c.267	0.004391715	0	1
4167 TRNT1	ENST00000251607	p.A113T	c.337	0.004391715	7.831	1
4168 CFH	ENST00000367429	p.G1107E	c.3320	1.20620872	0	2
4168 CFH	ENST00000367429	p.K1108N	c.3324	0.157673776	5.554	1

4168 CFH	ENST00000367429	p.G1155R	c.3463	0.484950089	2.435	1
4169 USP8	ENST00000307179	p.A775T	c.2323	0.030522142	5.034	1
4169 USP8	ENST00000307179	p.G840E	c.2519	0.030522142	0	1
4170 TBC1D22A	ENST00000337137	p.V396M	c.1186	0.057951909	4.109	1
4170 TBC1D22A	ENST00000337137	p.A458T	c.1372	0.061380901	0	1
4170 TBC1D22A	ENST00000337137	p.R503H	c.1508	0.003428991	8.188	1
4171 SERPINE2	ENST00000409304	p.L173R	c.518	0.025755065	5.279	1
4171 SERPINE2	ENST00000409304	p.D303H	c.907	0.025755065	0	1
4172 PDE1C	ENST00000396193	p.E374K	c.1120	0.031752192	0	1
4172 PDE1C	ENST00000396193	p.A268V	c.803	0.031752192	4.977	1
4173 IDE	ENST00000265986	p.P548S	c.1642	0.024708283	0	1
4173 IDE	ENST00000265986	p.E903K	c.2707	0.013917077	6.167	1
4173 IDE	ENST00000265986	p.W908F	c.2724_2723	0.010791207	6.534	1
4174 LMAN1	ENST00000251047	p.L123P	c.368	0.135578966	0	1
4174 LMAN1	ENST00000251047	p.F150V	c.448	0.102648836	3.336	1
4174 LMAN1	ENST00000251047	p.D152Y	c.454	0.040169099	4.774	1
4175 ARL5B	ENST00000377275	p.L63F	c.187	0.096321389	0	1
4175 ARL5B	ENST00000377275	p.I20V	c.58	0.096321389	3.376	1
4176 ANPEP	ENST00000300060	p.A294V	c.881	0.016299822	5.939	1
4176 ANPEP	ENST00000300060	p.T321M	c.962	0.016299822	0	1
4177 CSF3R	ENST00000440588	p.P34S	c.100_99	0.130670013	0	1
4177 CSF3R	ENST00000440588	p.R118P	c.353	0.130670013	2.936	1
4178 VAT1L	ENST00000302536	p.T212A	c.634	0.004756117	0	1
4178 VAT1L	ENST00000302536	p.D234N	c.700	0.004756117	7.716	1
4179 ME1	ENST00000369705	p.S455F	c.1364	0.071629559	0	1
4179 ME1	ENST00000369705	p.I506F	c.1516	0.057435468	4.225	1
4179 ME1	ENST00000369705	p.D508N	c.1522	0.030497546	9.233	1
4179 ME1	ENST00000369705	p.D268N	c.802	0.016493027	5.922	1
4180 PPIL2	ENST00000335025	p.R363C	c.1087	0.052994998	4.238	1
4180 PPIL2	ENST00000335025	p.R385H	c.1154	0.052994998	0	1
4181 EXOSC2	ENST00000372358	p.S175F	c.524	0.00587987	7.41	1
4181 EXOSC2	ENST00000372358	p.L251Q	c.752	0.00587987	0	1
4182 GSS	ENST00000216951	p.M398T	c.1193	0.026205256	5.254	1
4182 GSS	ENST00000216951	p.E144K	c.430	0.026205256	0	1
4183 RANBP2	ENST00000283195	p.R1203C	c.3607	1.010040675	0	2
4183 RANBP2	ENST00000283195	p.R1236L	c.3707	0.029586992	6.638	1
4184 AK4	ENST00000327299	p.I110M	c.330	0.076786686	0	1
4184 AK4	ENST00000327299	p.V206I	c.616	0.076786686	3.703	1
4185 TDRD3	ENST00000196169	p.W556L	c.1667	0.006982697	0	1
4185 TDRD3	ENST00000196169	p.M585I	c.1755	0.006982697	7.162	1
4186 FDPS	ENST00000356657	p.V190M	c.568	0.089560103	3.481	1
4186 FDPS	ENST00000356657	p.F272L	c.816	0.089560103	0	1
4187 NEO1	ENST00000339362	p.P857L	c.2570	0.055745532	4.165	1
4187 NEO1	ENST00000339362	p.T940I	c.2819	0.055745532	0	1
4188 HGF	ENST00000222390	p.A661D	c.1982	0.033244402	0	1
4188 HGF	ENST00000222390	p.P700T	c.2098	0.01286861	6.28	1
4188 HGF	ENST00000222390	p.R702H	c.2105	0.020375793	5.617	1
4189 DGUOK	ENST00000264093	p.S42F	c.125	0.127008768	0	1
4189 DGUOK	ENST00000264093	p.I190M	c.570	0.127008768	2.977	1

4190 TTN	ENST00000589042	p.Y33724C	c.101171	0.032803646	4.93	1
4190 TTN	ENST00000589042	p.E33765K	c.101293	0.032803646	0	1
4191 FGF13	ENST00000370603	p.G101D	c.302	0.033008926	4.921	1
4191 FGF13	ENST00000370603	p.E188D	c.564	0.033008926	0	1
4192 LRRC4	ENST00000249363	p.E160K	c.478	1.141708677	0	2
4192 LRRC4	ENST00000249363	p.E185V	c.554	0.283417353	2.819	1
4193 BUB1	ENST00000302759	p.L820V	c.2458	0.056016669	0	1
4193 BUB1	ENST00000302759	p.V863L	c.2587	0.056016669	4.158	1
4194 DNMT1	ENST00000359526	p.P867S	c.2599	0.090071211	3.522	1
4194 DNMT1	ENST00000359526	p.D875N	c.2623	0.037718582	4.849	1
4194 DNMT1	ENST00000359526	p.R1305H	c.3914	0.121748806	0	1
4195 TGS1	ENST00000260129	p.R714T	c.2141	0.018945513	5.722	1
4195 TGS1	ENST00000260129	p.K756R	c.2267	0.018945513	0	1
4196 SNX9	ENST00000392185	p.G429C	c.1285	0.007442484	0	1
4196 SNX9	ENST00000392185	p.V478L	c.1432	0.007442484	7.07	1
4197 PDHX	ENST00000227868	p.K112T	c.335	0.002450004	0	1
4197 PDHX	ENST00000227868	p.D137H	c.409	0.002450004	8.673	1
4198 CYP19A1	ENST00000559878	p.R457Q	c.1370	0.128964927	3.094	1
4198 CYP19A1	ENST00000559878	p.H459Q	c.1377	0.113030024	3.305	1
4198 CYP19A1	ENST00000559878	p.R495K	c.1484	0.218295458	0	1
4199 HK1	ENST00000448642	p.R574H	c.1721	0.025582518	5.807	1
4199 HK1	ENST00000448642	p.A596T	c.1786	0.104779591	3.365	1
4199 HK1	ENST00000448642	p.R318W	c.952	0.114920146	0	1
4200 MME	ENST00000360490	p.A567V	c.1700	0.420772302	2.318	1
4200 MME	ENST00000360490	p.G641R	c.1921	1.298686306	0	1
4200 MME	ENST00000360490	p.G641K	c.1921_1922	1.298686306	0	1
4200 MME	ENST00000360490	p.R293Q	c.878	0.215963748	3.349	1
4202 S100A12	ENST00000368737	p.A81T	c.241	0.067968024	3.879	1
4202 S100A12	ENST00000368737	p.G10E	c.29	0.067968024	0	1
4203 TEK	ENST00000380036	p.A63T	c.187	0.010517969	0	1
4203 TEK	ENST00000380036	p.S160F	c.479	0.010517969	6.571	1
4204 STYX	ENST00000442123	p.L117I	c.349	0.06237017	0	1
4204 STYX	ENST00000442123	p.M29I	c.87	0.06237017	4.003	1
4205 P2RY4	ENST00000374519	p.R112H	c.335	1.060037179	0	2
4205 P2RY4	ENST00000374519	p.R265H	c.794	0.120074358	4.058	1
4206 TAF5	ENST00000369839	p.G209R	c.625	0.004866162	7.683	1
4206 TAF5	ENST00000369839	p.F240V	c.718	0.003412394	8.195	1
4206 TAF5	ENST00000369839	p.I329T	c.986	0.008278556	0	1
4207 KCNA1	ENST00000382545	p.E348K	c.1042	0.05969109	4.094	1
4207 KCNA1	ENST00000382545	p.P360S	c.1078	0.020490511	5.691	1
4207 KCNA1	ENST00000382545	p.K386N	c.1158	0.077914601	0	1
4208 KEAP1	ENST00000171111	p.V369L	c.1105	1.086930966	0	1
4208 KEAP1	ENST00000171111	p.V369M	c.1105	1.086930966	0	1
4208 KEAP1	ENST00000171111	p.A607P	c.1819	0.244164712	3.64	1
4208 KEAP1	ENST00000171111	p.I328F	c.982	0.09717017	7.218	1
4209 CPS1	ENST00000430249	p.V1441A	c.4322	0.122257934	3.032	1
4209 CPS1	ENST00000430249	p.P1468R	c.4403	0.122257934	0	1
4210 BACH1	ENST00000286800	p.D35Y	c.103	0.004117545	0	1
4210 BACH1	ENST00000286800	p.I63K	c.188_189	0.004117545	7.924	1

4212 PRKCH	ENST00000332981	p.E490G	c.1469	0.115023456	0	1
4212 PRKCH	ENST00000332981	p.P629S	c.1885	0.115023456	3.12	1
4213 METAP1	ENST00000296411	p.L362R	c.1085	0.110792855	4.29	1
4213 METAP1	ENST00000296411	p.E369Q	c.1105	0.343268912	2.579	1
4213 METAP1	ENST00000296411	p.R140Q	c.419	1.218475786	0	2
4214 RUVBL2	ENST00000595090	p.E136D	c.408	0.012770865	0	1
4214 RUVBL2	ENST00000595090	p.K201R	c.602	0.012770865	6.291	1
4215 UPF1	ENST00000599848	p.R708H	c.2123	0.097869287	0	1
4215 UPF1	ENST00000599848	p.G745A	c.2234	0.097869287	3.353	1
4216 AGT	ENST00000366667	p.E338K	c.1012	0.011981896	6.383	1
4216 AGT	ENST00000366667	p.K370N	c.1110	0.011981896	0	1
4217 LCMT1	ENST00000399069	p.L172F	c.514	0.056798632	0	1
4217 LCMT1	ENST00000399069	p.L212I	c.634	0.056798632	4.138	1
4218 NR1H4	ENST00000551379	p.R367Q	c.1100	0.065016643	4.018	1
4218 NR1H4	ENST00000551379	p.D472Y	c.1414	0.105224834	4.229	1
4218 NR1H4	ENST00000551379	p.F298V	c.892	0.11683775	0	1
4218 NR1H4	ENST00000551379	p.T302M	c.905	0.035278985	9.129	1
4219 C6	ENST00000263413	p.R145C	c.433	4.015437262	0	3
4219 C6	ENST00000263413	p.R145H	c.434	4.015437262	0	1
4219 C6	ENST00000263413	p.R145P	c.434	4.015437262	0	1
4219 C6	ENST00000263413	p.D166Y	c.496	0.046453403	6.75	1
4219 C6	ENST00000263413	p.E170K	c.508	0.030732908	7.346	1
4220 DDC	ENST00000444124	p.R160Q	c.480_479	0.041550222	0	1
4220 DDC	ENST00000444124	p.G203A	c.608	0.041550222	4.589	1
4221 PRMT3	ENST00000331079	p.G356V	c.1067	0.024281477	0	1
4221 PRMT3	ENST00000331079	p.V325A	c.974	0.024281477	5.364	1
4222 CPN1	ENST00000370418	p.E89K	c.265	1.027911433	0	2
4222 CPN1	ENST00000370418	p.F314L	c.942	0.055822866	5.163	1
4223 BMX	ENST00000348343	p.W410L	c.1229	0.141381405	5.215	1
4223 BMX	ENST00000348343	p.F457L	c.1371	1.029280044	0	2
4223 BMX	ENST00000348343	p.F475L	c.1425	0.092248223	8.729	1
4224 HSD17B4	ENST00000504811	p.P441S	c.1321	0.059959384	7.334	1
4224 HSD17B4	ENST00000504811	p.L478F	c.1432	1.006197921	0	1
4224 HSD17B4	ENST00000504811	p.L478P	c.1433	1.006197921	0	1
4225 NAT1	ENST00000535084	p.R64Q	c.191	0.135653671	2.882	1
4225 NAT1	ENST00000535084	p.R9I	c.26	0.135653671	0	1
4226 ACOT7	ENST00000377855	p.I278V	c.832	0.024637266	5.447	1
4226 ACOT7	ENST00000377855	p.H281Y	c.841	0.076452045	3.742	1
4226 ACOT7	ENST00000377855	p.A326T	c.976	0.097662696	0	1
4227 IGHMBP2	ENST00000255078	p.R56H	c.167	0.136604599	4.21	1
4227 IGHMBP2	ENST00000255078	p.R286W	c.856	1.055575557	0	2
4227 IGHMBP2	ENST00000255078	p.I296V	c.886	0.031621406	9.341	1
4229 TOP3A	ENST00000321105	p.D51E	c.153	0.007583082	7.043	1
4229 TOP3A	ENST00000321105	p.V186I	c.556	0.007583082	0	1
4230 PKLR	ENST00000342741	p.R486Q	c.1457	0.019545767	5.677	1
4230 PKLR	ENST00000342741	p.R510Q	c.1529	0.019545767	0	1
4231 PCYT2	ENST00000538721	p.I234M	c.702	0.057114466	4.13	1
4231 PCYT2	ENST00000538721	p.P261N	c.782_781	0.057114466	0	1
4232 SKP1	ENST00000517625	p.L47V	c.139	0.135831677	0	1

4232 SKP1	ENST00000517625	p.K80R	c.239	0.084512875	3.643	1
4232 SKP1	ENST00000517625	p.D84N	c.250	0.06024957	4.164	1
4233 FAP	ENST00000188790	p.P469S	c.1405	0.011630041	6.426	1
4233 FAP	ENST00000188790	p.R550T	c.1649	0.011630041	0	1
4234 KCNH2	ENST00000262186	p.R4Q	c.11	0.166893538	2.583	1
4234 KCNH2	ENST00000262186	p.E118K	c.352	0.166893538	0	1
4235 THYN1	ENST00000392595	p.A124T	c.370	0.078617811	3.669	1
4235 THYN1	ENST00000392595	p.M168T	c.503	0.078617811	0	1
4236 USP21	ENST00000289865	p.L507F	c.1519	0.063636575	0	1
4236 USP21	ENST00000289865	p.W529C	c.1587	0.063636575	3.974	1
4237 MGAM	ENST00000475668	p.R115H	c.344	0.018363693	5.767	1
4237 MGAM	ENST00000475668	p.P162S	c.484	0.018363693	0	1
4238 RPS6KA1	ENST00000531382	p.E632K	c.1894	0.016277241	5.941	1
4238 RPS6KA1	ENST00000531382	p.A713T	c.2137	0.016277241	0	1
4239 CAB39L	ENST00000409308	p.F101C	c.302	0.01251711	7.468	1
4239 CAB39L	ENST00000409308	p.R141S	c.421	1.005648173	0	1
4239 CAB39L	ENST00000409308	p.R141H	c.422	1.005648173	0	1
4240 EPHA4	ENST00000281821	p.R492W	c.1474	1.019956465	0	1
4240 EPHA4	ENST00000281821	p.R492Q	c.1475	1.019956465	0	1
4240 EPHA4	ENST00000281821	p.R514Q	c.1541	0.03991293	5.647	1
4241 CASP6	ENST00000265164	p.A34T	c.100	1.036757014	0	2
4241 CASP6	ENST00000265164	p.E247K	c.739	0.051796557	5.271	1
4241 CASP6	ENST00000265164	p.L282V	c.844	0.030704128	6.525	1
4242 DDB1	ENST00000301764	p.R414W	c.1240	0.056641371	4.142	1
4242 DDB1	ENST00000301764	p.R642C	c.1924	0.015909144	5.974	1
4242 DDB1	ENST00000301764	p.D685N	c.2053	0.072550515	0	1
4243 BLM	ENST00000355112	p.MG951IW	c.2853_2854	0.108592773	0	1
4243 BLM	ENST00000355112	p.R979T	c.2936	0.108592773	3.203	1
4244 OBSCN	ENST00000570156	p.A3906S	c.11716	0.284993318	0	1
4244 OBSCN	ENST00000570156	p.Q3927H	c.11781	0.284993318	1.811	1
4245 CHN2	ENST00000539406	p.I371K	c.1112	0.045689295	4.452	1
4245 CHN2	ENST00000539406	p.R479Q	c.1436	0.045689295	0	1
4246 ACAD11	ENST00000264990	p.A512S	c.1534	0.006601456	0	1
4246 ACAD11	ENST00000264990	p.K662N	c.1986	0.006601456	7.243	1
4247 MYO10	ENST00000513610	p.E1824Q	c.5470	0.021300041	0	1
4247 MYO10	ENST00000513610	p.S1856F	c.5567	0.021300041	5.553	1
4248 S100A13	ENST00000368699	p.L56F	c.166	0.222673225	2.167	1
4248 S100A13	ENST00000368699	p.E86G	c.257	0.222673225	0	1
4249 UBE2F	ENST00000272930	p.Y75C	c.224	0.024877753	5.329	1
4249 UBE2F	ENST00000272930	p.K97T	c.290	0.024877753	0	1
4250 AHCY	ENST00000217426	p.I241T	c.722	0.011063871	6.498	1
4250 AHCY	ENST00000217426	p.M262I	c.786	0.011063871	0	1
4251 CNOT4	ENST00000541284	p.P54H	c.161	0.297920644	1.747	1
4251 CNOT4	ENST00000541284	p.L16V	c.46	0.297920644	0	1
4252 ZWILCH	ENST00000307897	p.Q375L	c.1124	0.006341325	0	1
4252 ZWILCH	ENST00000307897	p.Q300H	c.900	0.006341325	7.301	1
4253 ANXA6	ENST00000354546	p.R499K	c.1496	0.038222822	4.84	1
4253 ANXA6	ENST00000354546	p.S503Y	c.1508	0.098039884	3.4	1
4253 ANXA6	ENST00000354546	p.A592V	c.1775	0.129647508	0	1

4254 CYP2A13	ENST00000330436	p.R129G	c.385	0.01081367	0	1
4254 CYP2A13	ENST00000330436	p.F286L	c.858	0.01081367	6.531	1
4255 TSTA3	ENST00000425753	p.H196R	c.587	0.01167851	6.42	1
4255 TSTA3	ENST00000425753	p.V259M	c.775	0.01167851	0	1
4256 EPHX2	ENST00000521400	p.N124Y	c.370	0.133600749	0	1
4256 EPHX2	ENST00000521400	p.S153L	c.458	0.133600749	2.904	1
4257 JAK3	ENST00000458235	p.R866M	c.2597	0.0093294	0	1
4257 JAK3	ENST00000458235	p.G969V	c.2906	0.0093294	6.744	1
4258 CAMK2D	ENST00000511664	p.P178S	c.532	0.100167154	3.49	1
4258 CAMK2D	ENST00000511664	p.G179E	c.536	0.136597985	2.995	1
4258 CAMK2D	ENST00000511664	p.I304T	c.911	0.214437106	0	1
4259 ATG4B	ENST00000404914	p.I82M	c.246	1.040302133	0	2
4259 ATG4B	ENST00000404914	p.A318T	c.952	0.080604266	4.633	1
4260 FADD	ENST00000301838	p.R114S	c.342	0.005013382	0	1
4260 FADD	ENST00000301838	p.L137Q	c.410	0.005013382	7.64	1
4261 NOTCH1	ENST00000277541	p.A2036V	c.6107	0.218393224	3.195	1
4261 NOTCH1	ENST00000277541	p.P2064L	c.6191	1.109196612	0	2
4262 CEACAM5	ENST00000221992	p.V273G	c.818	0.018736561	5.738	1
4262 CEACAM5	ENST00000221992	p.S296F	c.887	0.018736561	0	1
4263 NPY1R	ENST00000296533	p.I128M	c.384	0.172898829	3.532	1
4263 NPY1R	ENST00000296533	p.I227L	c.679	1.086449414	0	1
4263 NPY1R	ENST00000296533	p.I227T	c.680	1.086449414	0	1
4264 CCDC101	ENST00000317058	p.R165W	c.493	0.130942016	0	1
4264 CCDC101	ENST00000317058	p.R208H	c.623	0.130942016	2.933	1
4265 HTRA1	ENST00000368984	p.R190C	c.568	0.110644221	4.176	1
4265 HTRA1	ENST00000368984	p.R227Q	c.680	1.05532211	0	2
4266 SNAI1	ENST00000244050	p.H212Q	c.636	0.002584319	8.596	1
4266 SNAI1	ENST00000244050	p.R247P	c.740	0.002584319	0	1
4267 SRSF1	ENST00000584773	p.R51C	c.151	0.033679161	4.892	1
4267 SRSF1	ENST00000584773	p.D80G	c.239	0.033679161	0	1
4268 SULT1C2	ENST00000437390	p.P131L	c.392	0.005086891	7.619	1
4268 SULT1C2	ENST00000437390	p.H201Y	c.601	0.005086891	0	1
4269 CAMK1	ENST00000256460	p.L212P	c.635	0.080653043	0	1
4269 CAMK1	ENST00000256460	p.F252L	c.756	0.012967103	6.269	1
4269 CAMK1	ENST00000256460	p.I286V	c.856	0.06768594	3.885	1
4270 CHI3L1	ENST00000255409	p.S111F	c.332	0.006963363	0	1
4270 CHI3L1	ENST00000255409	p.L153P	c.458	0.006963363	7.166	1
4271 CTNNA1	ENST00000302763	p.E432Q	c.1294	0.187363909	0	1
4271 CTNNA1	ENST00000302763	p.S322L	c.965	0.176005707	2.526	1
4271 CTNNA1	ENST00000302763	p.T325M	c.974	0.016130831	6.185	1
4272 TDG	ENST00000392872	p.D133Y	c.397	0.030101934	0	1
4272 TDG	ENST00000392872	p.A227E	c.680	0.030101934	5.054	1
4273 STK32A	ENST00000398523	p.K148E	c.442	0.003757529	0	1
4273 STK32A	ENST00000398523	p.S227F	c.680	0.003757529	8.056	1
4274 GRM5	ENST00000305447	p.L268M	c.802	0.019143521	5.707	1
4274 GRM5	ENST00000305447	p.A271T	c.811	0.017122059	5.868	1
4274 GRM5	ENST00000305447	p.E298A	c.893	0.03626558	0	1
4275 DNPEP	ENST00000523282	p.R123W	c.367	0.090999347	0	1
4275 DNPEP	ENST00000523282	p.R233W	c.697	0.090999347	3.458	1

4276 NPC1L1	ENST00000289547	p.L99P	c.296	0.083100444	3.589	1
4276 NPC1L1	ENST00000289547	p.T128M	c.383	0.083100444	0	1
4277 LTA	ENST00000418386	p.L99I	c.295	0.014802657	6.078	1
4277 LTA	ENST00000418386	p.G178V	c.533	0.014802657	0	1
4278 DESI1	ENST00000263256	p.H44Y	c.130	0.100272646	0	1
4278 DESI1	ENST00000263256	p.T80R	c.239	0.100272646	3.318	1
4279 CBLB	ENST00000264122	p.I77V	c.229	0.022143084	5.497	1
4279 CBLB	ENST00000264122	p.H152L	c.455	0.031648728	0	1
4279 CBLB	ENST00000264122	p.D221Y	c.661	0.009505643	6.717	1
4280 FIGNL1	ENST00000419119	p.S466Y	c.1397	0.065924681	5.508	1
4280 FIGNL1	ENST00000419119	p.E501K	c.1501	2.021974894	0	2
4280 FIGNL1	ENST00000419119	p.E501G	c.1502	2.021974894	0	1
4281 ARL6	ENST00000493990	p.F127L	c.381	0.1077327	0	1
4281 ARL6	ENST00000493990	p.I159L	c.475	0.098141015	3.349	1
4281 ARL6	ENST00000493990	p.S162G	c.484	0.009591685	6.704	1
4282 CCR5	ENST00000292303	p.T343I	c.1028	0.019998006	0	1
4282 CCR5	ENST00000292303	p.L222F	c.664	0.019998006	5.644	1
4283 TGM2	ENST00000361475	p.R512H	c.1535	0.191843262	3.382	1
4283 TGM2	ENST00000361475	p.R564W	c.1690	1.095921631	0	1
4283 TGM2	ENST00000361475	p.R564Q	c.1691	1.095921631	0	1
4284 ZAP70	ENST00000264972	p.L371M	c.1111	0.125879436	3.132	1
4284 ZAP70	ENST00000264972	p.T380K	c.1139	0.115330082	3.272	1
4284 ZAP70	ENST00000264972	p.L410F	c.1228	0.217592019	0	1
4285 MAPK7	ENST00000308406	p.R369H	c.1106	0.00805444	6.956	1
4285 MAPK7	ENST00000308406	p.R98Q	c.293	0.00805444	0	1
4286 HSP90AA1	ENST00000334701	p.E345Q	c.1033	0.019290041	5.696	1
4286 HSP90AA1	ENST00000334701	p.T141S	c.421	0.050626804	0	1
4286 HSP90AA1	ENST00000334701	p.T221A	c.661	0.031336764	4.996	1
4287 CYP1A2	ENST00000343932	p.I459M	c.1377	0.026534258	0	1
4287 CYP1A2	ENST00000343932	p.A140S	c.418	0.026534258	5.236	1
4288 CYB5R3	ENST00000361740	p.P72L	c.215	0.023864336	5.389	1
4288 CYB5R3	ENST00000361740	p.R176Q	c.527	0.023864336	0	1
4289 AHNAK2	ENST00000333244	p.T114M	c.341	1.200406332	0	2
4289 AHNAK2	ENST00000333244	p.I190M	c.570	0.400812665	2.319	1
4290 EXO1	ENST00000348581	p.R138Q	c.413	0.041177498	0	1
4290 EXO1	ENST00000348581	p.G328V	c.983	0.041177498	4.602	1
4291 PFKFB1	ENST00000375006	p.R353Q	c.1058	0.004812492	0	1
4291 PFKFB1	ENST00000375006	p.P451L	c.1352	0.004812492	7.699	1
4292 CTNNB1	ENST00000349496	p.K354T	c.1061	0.130695575	2.963	1
4292 CTNNB1	ENST00000349496	p.N387K	c.1161	0.147337785	0	1
4292 CTNNB1	ENST00000349496	p.N426D	c.1276	0.021538824	5.711	1
4293 CLEC9A	ENST00000355819	p.Q179H	c.537	0.033585912	0	1
4293 CLEC9A	ENST00000355819	p.S221L	c.662	0.033585912	4.896	1
4294 TRAF2	ENST00000359662	p.E391Q	c.1171	0.006470083	7.272	1
4294 TRAF2	ENST00000359662	p.R424H	c.1271	0.006470083	0	1
4295	7-Sep ENST00000399034	p.A197S	c.589	0.004606862	0	1
4295	7-Sep ENST00000399034	p.P269S	c.805	0.004606862	7.762	1
4297 IQGAP1	ENST00000268182	p.V1153A	c.3458	1.020179021	6.631	2
4297 IQGAP1	ENST00000268182	p.R1264W	c.3790	1.020179021	0	2

4298 CYP27A1	ENST00000258415	p.G372R	c.1114	0.114704985	0	1
4298 CYP27A1	ENST00000258415	p.Q530H	c.1590	0.114704985	3.124	1
4299 F11R	ENST00000368026	p.S154L	c.461	0.004367429	0	1
4299 F11R	ENST00000368026	p.M222I	c.666	0.004367429	7.839	1
4300 CEP170	ENST00000366542	p.M1T	c.2	0.004233305	7.884	1
4300 CEP170	ENST00000366542	p.E102K	c.304	0.004233305	0	1
4301 ITK	ENST00000422843	p.D445N	c.1333	0.017145812	5.866	1
4301 ITK	ENST00000422843	p.R486I	c.1457	0.025519042	0	1
4301 ITK	ENST00000422843	p.P558L	c.1673	0.00837323	6.9	1
4302 FUT8	ENST00000360689	p.Y511S	c.1532	0.075939799	0	1
4302 FUT8	ENST00000360689	p.Y556H	c.1666	0.075939799	3.719	1
4303 NRCAM	ENST00000379028	p.G692W	c.2074	0.186726682	0	1
4303 NRCAM	ENST00000379028	p.M722I	c.2166	0.186726682	2.421	1
4304 CNNM4	ENST00000377075	p.F394L	c.1182	0.0011148	0	1
4304 CNNM4	ENST00000377075	p.D426N	c.1276	0.0011148	9.809	1
4305 CD55	ENST00000367063	p.R170Q	c.509	0.153148166	2.707	1
4305 CD55	ENST00000367063	p.P218S	c.652	0.153148166	0	1
4306 HTRA1	ENST00000368984	p.G235S	c.703	0.101813445	4.296	1
4306 HTRA1	ENST00000368984	p.S287F	c.860	1.050906723	0	2
4307 NTRK2	ENST00000376213	p.S738T	c.2213	0.053142135	4.234	1
4307 NTRK2	ENST00000376213	p.Y783N	c.2347	0.053142135	0	1
4308 PARP16	ENST00000261888	p.D222H	c.664	0.058476469	0	1
4308 PARP16	ENST00000261888	p.N259S	c.776	0.058476469	4.096	1
4309 GRB14	ENST00000263915	p.N349K	c.1047	0.037119357	5.945	1
4309 GRB14	ENST00000263915	p.D127G	c.380	0.022923959	6.447	1
4309 GRB14	ENST00000263915	p.V133L	c.397	0.013331658	7.229	1
4309 GRB14	ENST00000263915	p.E168K	c.502	1.034359982	0	2
4310 MVK	ENST00000228510	p.Q358H	c.1074	0.010851212	0	1
4310 MVK	ENST00000228510	p.R325H	c.974	0.010851212	6.526	1
4311 CP	ENST00000264613	p.G418S	c.1252	0.012560172	6.315	1
4311 CP	ENST00000264613	p.F600V	c.1798	0.012560172	0	1
4312 HNRNPA1	ENST00000340913	p.T64A	c.190	0.11478452	0	1
4312 HNRNPA1	ENST00000340913	p.P7R	c.20	0.11478452	3.123	1
4313 SERPINA5	ENST00000554866	p.D356H	c.1066	0.153849693	3.215	1
4313 SERPINA5	ENST00000554866	p.V383M	c.1147	0.021340581	7.085	1
4313 SERPINA5	ENST00000554866	p.M236K	c.707	0.214761233	0	1
4313 SERPINA5	ENST00000554866	p.P304L	c.911_912	0.119552003	3.699	1
4313 SERPINA5	ENST00000554866	p.F306L	c.918	0.054719993	5.461	1
4314 TBC1D22B	ENST00000373491	p.V444A	c.1331	0.086629368	0	1
4314 TBC1D22B	ENST00000373491	p.A489S	c.1465	0.086629368	3.529	1
4315 RAD51	ENST00000532743	p.L219R	c.656	0.051904377	4.268	1
4315 RAD51	ENST00000532743	p.V262I	c.784	0.051904377	0	1
4316 SERPINB2	ENST00000457692	p.R223H	c.668	0.075718291	0	1
4316 SERPINB2	ENST00000457692	p.D274N	c.820	0.052653005	4.282	1
4316 SERPINB2	ENST00000457692	p.T277N	c.830	0.025565037	5.362	1
4317 ALDH2	ENST00000261733	p.R114W	c.340	0.01165425	6.423	1
4317 ALDH2	ENST00000261733	p.D333N	c.997	0.01165425	0	1
4318 KDM2A	ENST00000529006	p.R137Q	c.410	0.113754853	3.136	1
4318 KDM2A	ENST00000529006	p.V204A	c.611	0.113754853	0	1

4319	PTPRJ	ENST00000418331	p.R1070H	c.3209	0.032195436	0	1
4319	PTPRJ	ENST00000418331	p.C1239R	c.3715	0.032195436	4.957	1
4320	ESRRG	ENST00000360012	p.D231N	c.691	0.007737054	7.014	1
4320	ESRRG	ENST00000360012	p.M275R	c.824	0.007737054	0	1
4321	APLP1	ENST00000221891	p.F354L	c.1062	0.025120343	6.315	1
4321	APLP1	ENST00000221891	p.R330C	c.988	1.012560172	0	2
4322	CD2AP	ENST00000359314	p.Y4C	c.11	0.096254647	3.377	1
4322	CD2AP	ENST00000359314	p.V29A	c.86	0.096254647	0	1
4323	PTGIS	ENST00000244043	p.D336N	c.1006	0.011422324	0	1
4323	PTGIS	ENST00000244043	p.P500Q	c.1499	0.011422324	6.452	1
4324	FGF18	ENST00000274625	p.R60W	c.178	0.010635845	7.489	1
4324	FGF18	ENST00000274625	p.T139M	c.416	0.010749542	0	1
4324	FGF18	ENST00000274625	p.E167K	c.499	0.010252281	7.592	1
4325	PRKAA2	ENST00000371244	p.R421L	c.1262	0.008431471	6.89	1
4325	PRKAA2	ENST00000371244	p.L546Q	c.1637	0.008431471	0	1
4326	SOS1	ENST00000426016	p.S880L	c.2639	0.013849714	6.174	1
4326	SOS1	ENST00000426016	p.L1009I	c.3025	0.013849714	0	1
4327	LGR4	ENST00000379214	p.L418R	c.1253	0.007817917	6.999	1
4327	LGR4	ENST00000379214	p.S461F	c.1382	0.007817917	0	1
4328	CCBL1	ENST00000436267	p.R232H	c.695	0.031752192	4.977	1
4328	CCBL1	ENST00000436267	p.R268C	c.802	0.031752192	0	1
4330	BCKDHB	ENST00000356489	p.R359T	c.1076	0.010783729	0	1
4330	BCKDHB	ENST00000356489	p.W310S	c.929	0.010783729	6.535	1
4331	EBF1	ENST00000313708	p.G296S	c.886	0.121161227	0	1
4331	EBF1	ENST00000313708	p.E324K	c.970	0.121161227	3.045	1
4332	ACVRL1	ENST00000550683	p.T49K	c.146	0.002794876	0	1
4332	ACVRL1	ENST00000550683	p.S124L	c.371	0.002794876	8.483	1
4333	HDAC3	ENST00000305264	p.K44N	c.132	0.010180837	0	1
4333	HDAC3	ENST00000305264	p.A6T	c.16	0.010180837	6.618	1
4334	MEFV	ENST00000219596	p.L602M	c.1804	0.069927319	3.838	1
4334	MEFV	ENST00000219596	p.L643M	c.1927	0.069927319	0	1
4335	LIG4	ENST00000356922	p.L92V	c.274	0.076203443	3.714	1
4335	LIG4	ENST00000356922	p.L171R	c.512	0.076203443	0	1
4337	C8A	ENST00000361249	p.G338D	c.1013	0.034534164	6.477	1
4337	C8A	ENST00000361249	p.H465Y	c.1393	1.02492306	0	2
4337	C8A	ENST00000361249	p.S259T	c.776	0.027393929	6.19	1
4338	INS	ENST00000250971	p.E59K	c.175	0.017615631	5.827	1
4338	INS	ENST00000250971	p.G32R	c.94	0.017615631	0	1
4339	BTN3A1	ENST00000289361	p.Q178K	c.532	0.031012637	0	1
4339	BTN3A1	ENST00000289361	p.I222M	c.666	0.031012637	5.011	1
4340	QPRT	ENST00000395384	p.P58S	c.172	0.018466189	0	1
4340	QPRT	ENST00000395384	p.L108M	c.322	0.011257264	6.473	1
4340	QPRT	ENST00000395384	p.A3T	c.7	0.007208926	7.116	1
4341	KRAS	ENST00000256078	p.K5E	c.13	0.035133716	0	1
4341	KRAS	ENST00000256078	p.D132G	c.395	0.035133716	4.831	1
4342	CKB	ENST00000348956	p.A76V	c.227	0.048495678	0	1
4342	CKB	ENST00000348956	p.L281V	c.841	0.048495678	4.366	1
4343	IKBKB	ENST00000520810	p.G209S	c.625	0.029545145	5.15	1
4343	IKBKB	ENST00000520810	p.A212T	c.634	0.050417574	4.35	1

4343	IKBBB	ENST00000520810	p.W276R	c.826	0.077200583	0	1
4344	AHCYL1	ENST00000369799	p.R365W	c.1093	0.005778857	7.435	1
4344	AHCYL1	ENST00000369799	p.C392Y	c.1175	0.005778857	0	1
4345	SPRED1	ENST00000299084	p.V42A	c.125	0.108517528	0	1
4345	SPRED1	ENST00000299084	p.R16L	c.47	0.108517528	3.204	1
4346	HADH	ENST00000403312	p.E241Q	c.721	0.063730216	4.514	1
4346	HADH	ENST00000403312	p.P274S	c.820	0.013118341	9.75	1
4346	HADH	ENST00000403312	p.G275W	c.823	0.142054629	0	1
4346	HADH	ENST00000403312	p.E318K	c.952	0.113333862	3.364	1
4347	ADAMTS1	ENST00000284984	p.L355R	c.1064	0.132861959	2.912	1
4347	ADAMTS1	ENST00000284984	p.S386F	c.1157	0.132861959	0	1
4348	SNRNP200	ENST00000323853	p.H618N	c.1852	0.03180588	6.767	1
4348	SNRNP200	ENST00000323853	p.A813S	c.2437	0.045499673	4.458	1
4348	SNRNP200	ENST00000323853	p.D848G	c.2543	0.05468152	0	1
4349	GSTA4	ENST00000370963	p.Q54in_frame_del	c.162_160	0.006929659	0	1
4349	GSTA4	ENST00000370963	p.E97D	c.291	0.006929659	7.173	1
4350	NUDT2	ENST00000379158	p.A63V	c.188	0.360635042	4.923	1
4350	NUDT2	ENST00000379158	p.I10M	c.30	1.26979047	0	2
4350	NUDT2	ENST00000379158	p.I105F	c.313	0.319174266	6.127	1
4350	NUDT2	ENST00000379158	p.R115H	c.344	0.455556678	2.168	1
4351	ERO1L	ENST00000554019	p.Y76C	c.227	0.085200163	0	1
4351	ERO1L	ENST00000554019	p.T148A	c.442	0.085200163	3.553	1
4352	CASP6	ENST00000265164	p.E191K	c.571	0.155609279	0	1
4352	CASP6	ENST00000265164	p.R220W	c.658	0.155609279	2.684	1
4353	MAP2K7	ENST00000545011	p.S397P	c.1189	0.026314467	5.248	1
4353	MAP2K7	ENST00000545011	p.S420I	c.1259	0.026314467	0	1
4354	CTNND1	ENST00000428599	p.R736L	c.2207	0.025523969	0	1
4354	CTNND1	ENST00000428599	p.V779L	c.2335	0.016933218	5.884	1
4354	CTNND1	ENST00000428599	p.A781T	c.2341	0.008590751	6.863	1
4355	HIBADH	ENST00000265395	p.P259T	c.775	0.011981896	6.383	1
4355	HIBADH	ENST00000265395	p.P268L	c.803	0.012242144	6.352	1
4355	HIBADH	ENST00000265395	p.F323I	c.967	0.024224039	0	1
4356	ITGA4	ENST00000397033	p.R481K	c.1442	0.01589812	5.975	1
4356	ITGA4	ENST00000397033	p.R569L	c.1706	0.01589812	0	1
4357	PPP3CA	ENST00000394854	p.R486C	c.1456	0.024231038	0	1
4357	PPP3CA	ENST00000394854	p.A223E	c.668	0.024231038	5.367	1
4358	KCNMA1	ENST00000404771	p.R787S	c.2361	0.087171479	4.52	1
4358	KCNMA1	ENST00000404771	p.T892M	c.2675	1.04358574	0	2
4359	GLUL	ENST00000311223	p.D63N	c.187	0.009086875	0	1
4359	GLUL	ENST00000311223	p.R324C	c.970	0.009086875	6.782	1
4360	CPA1	ENST00000011292	p.D115N	c.343	0.022390026	5.481	1
4360	CPA1	ENST00000011292	p.R155H	c.464	0.022390026	0	1
4361	GRM5	ENST00000305447	p.G92C	c.274	2.10330629	0	1
4361	GRM5	ENST00000305447	p.G92R	c.274	2.10330629	0	1
4361	GRM5	ENST00000305447	p.G92D	c.275	2.10330629	0	1
4361	GRM5	ENST00000305447	p.P32L	c.95	0.309918869	3.275	1
4362	PFKFB1	ENST00000375006	p.F93L	c.279	0.012951755	0	1
4362	PFKFB1	ENST00000375006	p.D192Y	c.574	0.006606033	7.242	1
4362	PFKFB1	ENST00000375006	p.R196I	c.587	0.009385117	7.3	1

4363 CYP2C19	ENST00000371321	p.S180F	c.539	0.029177498	0	1
4363 CYP2C19	ENST00000371321	p.R261G	c.781	0.029177498	5.099	1
4364 MSH6	ENST00000234420	p.E956D	c.2868	0.029076552	0	1
4364 MSH6	ENST00000234420	p.L979V	c.2935	0.029076552	5.104	1
4365 TNFAIP6	ENST00000243347	p.E156K	c.466	1.013984767	0	1
4365 TNFAIP6	ENST00000243347	p.E156D	c.468	1.013984767	0	1
4365 TNFAIP6	ENST00000243347	p.D191N	c.571	0.027969533	6.16	1
4366 TEK	ENST00000380036	p.L377P	c.1130	0.039857637	0	1
4366 TEK	ENST00000380036	p.T401K	c.1202	0.039857637	4.649	1
4367 PAK1	ENST00000278568	p.V356L	c.1066	0.110830917	0	1
4367 PAK1	ENST00000278568	p.R421L	c.1262	0.02661645	5.351	1
4367 PAK1	ENST00000278568	p.M457I	c.1371	0.088444839	3.534	1
4368 SMAD4	ENST00000342988	p.W524C	c.1572	0.067358322	0	1
4368 SMAD4	ENST00000342988	p.A327V	c.980	0.067358322	3.892	1
4369 NCAM2	ENST00000400546	p.A210T	c.628	1.068357198	0	1
4369 NCAM2	ENST00000400546	p.A210E	c.629	1.068357198	0	1
4369 NCAM2	ENST00000400546	p.R233M	c.698	0.158758947	3.907	1
4369 NCAM2	ENST00000400546	p.G261R	c.781	0.028826897	9.204	1
4370 FLNC	ENST00000325888	p.G2420V	c.7259	0.147621109	2.917	1
4370 FLNC	ENST00000325888	p.R2443L	c.7328	0.130162572	3.121	1
4370 FLNC	ENST00000325888	p.I2469M	c.7407	0.247346048	0	1
4371 POLD2	ENST00000452185	p.E274D	c.822	0.002343694	8.737	1
4371 POLD2	ENST00000452185	p.M315I	c.945	0.002343694	0	1
4372 RHPN2	ENST00000254260	p.R515G	c.1543	0.08704647	0	1
4372 RHPN2	ENST00000254260	p.E587K	c.1759	0.020913671	5.656	1
4372 RHPN2	ENST00000254260	p.V591M	c.1771	0.055603982	4.197	1
4372 RHPN2	ENST00000254260	p.L593F	c.1777	0.012691444	6.3	1
4373 DOCK2	ENST00000256935	p.R1200C	c.3598	1.006087223	0	2
4373 DOCK2	ENST00000256935	p.D1229N	c.3685	0.012174447	7.36	1
4374 CFH	ENST00000367429	p.P695H	c.2084	0.316073681	2.084	1
4374 CFH	ENST00000367429	p.E696D	c.2088	0.420306832	1.556	1
4374 CFH	ENST00000367429	p.F717I	c.2149	0.575952276	0	1
4375 STARD6	ENST00000307844	p.G52E	c.155	0.392512636	0	1
4375 STARD6	ENST00000307844	p.L167V	c.499	0.326924483	1.742	1
4375 STARD6	ENST00000307844	p.V168A	c.503	0.12152722	3.418	1
4376 GBP1	ENST00000370473	p.A551V	c.1652	0.014457882	7.112	1
4376 GBP1	ENST00000370473	p.I576M	c.1728	1.007228941	0	2
4377 F5	ENST00000367796	p.H1811N	c.5431	0.027884404	6.293	1
4377 F5	ENST00000367796	p.P264T	c.790	1.199221176	0	1
4377 F5	ENST00000367796	p.P264K	c.791_790	1.199221176	0	1
4377 F5	ENST00000367796	p.H315Y	c.943	0.375314065	2.423	1
4378 AOC1	ENST00000416793	p.A443E	c.1328	0.031576608	0	1
4378 AOC1	ENST00000416793	p.V735M	c.2203	0.031576608	4.985	1
4379 CYP27A1	ENST00000258415	p.C218F	c.653	0.085555238	3.547	1
4379 CYP27A1	ENST00000258415	p.L285R	c.854	0.085555238	0	1
4380 ATP7A	ENST00000341514	p.R1067I	c.3200	0.287174589	1.8	1
4380 ATP7A	ENST00000341514	p.D1219Y	c.3655	0.287174589	0	1
4381 C5	ENST00000223642	p.S1058P	c.3172	0.113518552	0	1
4381 C5	ENST00000223642	p.P194A	c.580	0.113518552	3.139	1

4382	HECW2	ENST00000260983	p.S60N	c.179	0.25348987	1.98	1
4382	HECW2	ENST00000260983	p.D81N	c.241	0.25348987	0	1
4383	HSPA8	ENST00000227378	p.I346N	c.1037	0.014680043	0	1
4383	HSPA8	ENST00000227378	p.R311C	c.931	0.014680043	6.09	1
4384	RB1	ENST00000267163	p.S127I	c.380	0.009631659	0	1
4384	RB1	ENST00000267163	p.M148T	c.443	0.009631659	6.698	1
4385	FGA	ENST00000302053	p.E170D	c.510	0.158838519	2.716	1
4385	FGA	ENST00000302053	p.V171M	c.511	0.050288971	4.518	1
4385	FGA	ENST00000302053	p.V192I	c.574	0.195841956	0	1
4386	WARS	ENST00000355338	p.S353I	c.1058	0.093882495	3.413	1
4386	WARS	ENST00000355338	p.G29R	c.85	0.093882495	0	1
4387	PARP15	ENST00000464300	p.D426N	c.1276	0.100869953	0	1
4387	PARP15	ENST00000464300	p.V289F	c.865	0.09030815	3.469	1
4387	PARP15	ENST00000464300	p.E316K	c.946	0.010561803	6.565	1
4388	RAC2	ENST00000249071	p.F82L	c.246	0.009030365	0	1
4388	RAC2	ENST00000249071	p.G15D	c.44	0.009030365	6.791	1
4389	GRIK2	ENST00000421544	p.R458Q	c.1373	0.010798689	6.533	1
4389	GRIK2	ENST00000421544	p.E479K	c.1435	0.010798689	0	1
4390	AQP1	ENST00000434909	p.V167I	c.499	0.073965689	3.757	1
4391	PTP4A1	ENST00000370651	p.A106T	c.316	0.025577162	5.289	1
4391	PTP4A1	ENST00000370651	p.N24K	c.72	0.025577162	0	1
4392	EIF5A	ENST00000572815	p.S46L	c.137	0.004397807	7.829	1
4392	EIF5A	ENST00000572815	p.P74L	c.221	0.004397807	0	1
4393	KAT2A	ENST00000225916	p.V526A	c.1577	0.063372467	0	1
4393	KAT2A	ENST00000225916	p.T582N	c.1745	0.063372467	3.98	1
4394	ATIC	ENST00000236959	p.R172L	c.515	0.018893057	5.726	1
4394	ATIC	ENST00000236959	p.Q196H	c.588	0.018893057	0	1
4395	DUSP19	ENST00000354221	p.V98A	c.293	0.052229185	0	1
4395	DUSP19	ENST00000354221	p.V148L	c.442	0.052229185	4.259	1
4396	MASP2	ENST00000400897	p.E557V	c.1670	0.020207015	5.629	1
4396	MASP2	ENST00000400897	p.E643V	c.1928	0.020207015	0	1
4397	MTR	ENST00000366577	p.V155M	c.463	0.024671684	5.341	1
4397	MTR	ENST00000366577	p.S237F	c.710	0.024671684	0	1
4398	HIST1H2AE	ENST00000303910	p.A53V	c.158	0.043646204	0	1
4398	HIST1H2AE	ENST00000303910	p.P27S	c.79	0.043646204	4.518	1
4399	C1QA	ENST00000374642	p.V155A	c.464	0.011743449	6.412	1
4399	C1QA	ENST00000374642	p.G212D	c.635	0.011743449	0	1
4400	DNMT3A	ENST00000321117	p.K680R	c.2039	1.799457409	3.676	1
4400	DNMT3A	ENST00000321117	p.R882H	c.2645	22.07823728	0	23
4401	ACADM	ENST00000370834	p.S353L	c.1058	0.03739528	4.741	1
4401	ACADM	ENST00000370834	p.L442R	c.1325	0.03739528	0	1
4402	PRKAG1	ENST00000316299	p.Y250C	c.749	0.016320856	6.052	1
4402	PRKAG1	ENST00000316299	p.S251F	c.752	0.085167475	3.593	1
4402	PRKAG1	ENST00000316299	p.K287Q	c.859	0.01369564	6.305	1
4402	PRKAG1	ENST00000316299	p.R308Q	c.923	0.110589741	0	1
4403	HS3ST1	ENST00000002596	p.D91N	c.271	0.189858961	3.397	1
4403	HS3ST1	ENST00000002596	p.A122T	c.364	1.094929481	0	1
4403	HS3ST1	ENST00000002596	p.A122V	c.365	1.094929481	0	1
4404	EPRS	ENST00000366923	p.R1119C	c.3355	0.292435141	0	1

4404	EPRS	ENST00000366923	p.N1149S	c.3446	0.183776702	2.62	1
4404	EPRS	ENST00000366923	p.V1151L	c.3451	0.150876379	2.946	1
4405	MASP2	ENST00000400897	p.A484V	c.1451	0.021767473	0	1
4405	MASP2	ENST00000400897	p.E521K	c.1561	0.012149157	6.363	1
4405	MASP2	ENST00000400897	p.A534T	c.1600	0.009618316	6.7	1
4406	PRMT2	ENST00000397637	p.A39T	c.115	0.185179975	2.433	1
4406	PRMT2	ENST00000397637	p.H83Y	c.246_247	0.185179975	0	1
4407	PRPF8	ENST00000572621	p.R1832C	c.5494	2.047072131	0	2
4407	PRPF8	ENST00000572621	p.R1832H	c.5495	2.047072131	0	1
4407	PRPF8	ENST00000572621	p.P1871L	c.5612	0.070265606	5.416	1
4407	PRPF8	ENST00000572621	p.L1872R	c.5615	0.070950787	5.402	1
4408	RAB1A	ENST00000409784	p.I88T	c.263	0.006341325	7.301	1
4408	RAB1A	ENST00000409784	p.P149S	c.445	0.118763614	0	1
4408	RAB1A	ENST00000409784	p.E171D	c.513	0.112422289	3.153	1
4409	RPS3	ENST00000278572	p.R122C	c.364	0.06505507	5.773	1
4409	RPS3	ENST00000278572	p.R189C	c.565	1.02807575	0	2
4409	RPS3	ENST00000278572	p.R27W	c.79	0.021868718	7.509	1
4409	RPS3	ENST00000278572	p.A30D	c.89	0.026187936	7.862	1
4410	PRKAA2	ENST00000371244	p.R72H	c.215	0.020235047	5.627	1
4410	PRKAA2	ENST00000371244	p.H73Q	c.219	0.018091675	7.148	1
4410	PRKAA2	ENST00000371244	p.V287I	c.859	0.038988654	0	1
4410	PRKAA2	ENST00000371244	p.L311V	c.931	0.01170282	6.417	1
4411	HGD	ENST00000283871	p.F10L	c.30	0.120742041	3.05	1
4411	HGD	ENST00000283871	p.P224R	c.671	0.120742041	0	1
4412	C6	ENST00000263413	p.P527T	c.1579	0.012560172	6.315	1
4412	C6	ENST00000263413	p.S561F	c.1682	0.033566969	0	1
4412	C6	ENST00000263413	p.R596Q	c.1787	0.021006797	5.573	1
4413	THEM5	ENST00000368817	p.F156C	c.467	0.086030975	3.539	1
4413	THEM5	ENST00000368817	p.V196M	c.586	0.086030975	0	1
4414	TRIP10	ENST00000313244	p.E413Q	c.1237	0.018788582	5.734	1
4414	TRIP10	ENST00000313244	p.R456G	c.1366	0.018788582	0	1
4415	PRPS1	ENST00000543248	p.E51Q	c.151	0.188866312	0	1
4415	PRPS1	ENST00000543248	p.A82T	c.244	0.088758165	3.643	1
4415	PRPS1	ENST00000543248	p.R84W	c.250	0.117529494	3.2	1
4416	KCNMA1	ENST00000404771	p.T781S	c.2341	0.018198962	0	1
4416	KCNMA1	ENST00000404771	p.P863L	c.2588	0.018198962	5.78	1
4417	PPARD	ENST00000360694	p.R369L	c.1106	0.085044955	4.829	1
4417	PPARD	ENST00000360694	p.R258W	c.772	1.074019228	0	1
4417	PPARD	ENST00000360694	p.R258Q	c.773	1.074019228	0	1
4417	PPARD	ENST00000360694	p.V279A	c.836	0.045943354	5.444	1
4417	PPARD	ENST00000360694	p.V286M	c.856	0.031730191	5.978	1
4418	PRLR	ENST00000382002	p.G55V	c.164	0.016356411	5.934	1
4418	PRLR	ENST00000382002	p.Q108K	c.322	0.016356411	0	1
4419	CTH	ENST00000370938	p.C109Y	c.326	0.012413038	7.332	1
4419	CTH	ENST00000370938	p.K131N	c.393	1.006206519	0	2
4420	MYLK4	ENST00000274643	p.K135N	c.405	0.007641121	7.032	1
4420	MYLK4	ENST00000274643	p.D175N	c.523	0.007641121	0	1
4421	PPT1	ENST00000433473	p.S115P	c.343	0.020760716	0	1
4421	PPT1	ENST00000433473	p.S138L	c.413	0.020760716	5.59	1

4422	FGD5	ENST00000285046	p.A991T	c.2971	0.037188491	0	1
4422	FGD5	ENST00000285046	p.R1080H	c.3239	0.037188491	4.749	1
4423	MAT1A	ENST00000372213	p.Y377C	c.1130	0.132221064	4.61	1
4423	MAT1A	ENST00000372213	p.R169C	c.505	1.042328949	0	1
4423	MAT1A	ENST00000372213	p.R169H	c.506	1.042328949	0	1
4423	MAT1A	ENST00000372213	p.G26R	c.76	0.03643747	9.502	1
4424	GCKR	ENST00000264717	p.S183Y	c.548	0.006688971	0	1
4424	GCKR	ENST00000264717	p.R227Q	c.680	0.006688971	7.224	1
4425	VDR	ENST00000550325	p.T465A	c.1393	0.147698452	0	1
4425	VDR	ENST00000550325	p.R204Q	c.611	0.131719056	3.701	1
4425	VDR	ENST00000550325	p.A281V	c.842	0.12563109	3.82	1
4426	DLG1	ENST00000357674	p.A370T	c.1108	0.030248345	0	1
4426	DLG1	ENST00000357674	p.S314N	c.941	0.030248345	5.047	1
4427	SHC1	ENST00000448116	p.G362V	c.1085	0.141218402	0	1
4427	SHC1	ENST00000448116	p.S427C	c.1280	0.141218402	2.824	1
4428	TOP1	ENST00000361337	p.K484N	c.1452	0.098345306	0	1
4428	TOP1	ENST00000361337	p.E526Q	c.1576	0.098345306	3.346	1
4429	UPP2	ENST00000605860	p.R357W	c.1069	0.082640913	0	1
4429	UPP2	ENST00000605860	p.P264Q	c.791	0.082640913	3.597	1
4430	EPHX2	ENST00000521400	p.K455E	c.1363	0.016379101	0	1
4430	EPHX2	ENST00000521400	p.A290D	c.869	0.016379101	5.932	1
4431	CYP46A1	ENST00000261835	p.A111V	c.332	0.143885747	0	1
4431	CYP46A1	ENST00000261835	p.G221E	c.662	0.016251104	6.119	1
4431	CYP46A1	ENST00000261835	p.R226S	c.676	0.131361048	2.949	1
4432	SIRT2	ENST00000249396	p.P140H	c.419	0.064480199	0	1
4432	SIRT2	ENST00000249396	p.F190V	c.568	0.064480199	3.955	1
4433	PRKCA	ENST00000413366	p.F435C	c.1304	0.002804579	8.478	1
4433	PRKCA	ENST00000413366	p.S560F	c.1679	0.002804579	0	1
4434	ACTN2	ENST00000542672	p.L424F	c.1272	0.139199512	0	1
4434	ACTN2	ENST00000542672	p.T497A	c.1489	0.133691614	2.983	1
4434	ACTN2	ENST00000542672	p.K499N	c.1497	0.014326438	6.297	1
4435	GAPDH	ENST00000396859	p.A161S	c.481	1.072443497	0	2
4435	GAPDH	ENST00000396859	p.V220L	c.658	0.144886994	3.787	1
4436	B4GALT1	ENST00000379731	p.R185H	c.554	0.056328154	0	1
4436	B4GALT1	ENST00000379731	p.A217V	c.650	0.056328154	4.15	1
4437	PRKACA	ENST00000308677	p.R94C	c.280	0.012949139	6.271	1
4437	PRKACA	ENST00000308677	p.R191C	c.571	0.012949139	0	1
4438	MTR	ENST00000366577	p.L146V	c.436	0.021762679	6.522	1
4438	MTR	ENST00000366577	p.A175T	c.523	1.01088134	0	2
4439	PRKCB	ENST00000303531	p.T412A	c.1234	0.004671171	7.742	1
4439	PRKCB	ENST00000303531	p.M413N	c.1238_1239	0.020574483	5.603	1
4440	SPTB	ENST00000556626	p.A1177T	c.3529	0.010642641	6.554	1
4440	SPTB	ENST00000556626	p.S1230F	c.3689	0.010642641	0	1
4441	PRKCB	ENST00000303531	p.C386S	c.1156	0.047136877	0	1
4442	GSN	ENST00000373818	p.E58K	c.172	0.086809696	3.526	1
4442	GSN	ENST00000373818	p.D77N	c.229	0.007938048	6.977	1
4442	GSN	ENST00000373818	p.V133M	c.397	0.094747744	0	1
4443	A2M	ENST00000318602	p.L621P	c.1862	0.013773127	0	1
4443	A2M	ENST00000318602	p.F155I	c.463	0.013773127	6.182	1

4444 POFUT2	ENST00000349485	p.S198L	c.593	0.131032809	2.932	1
4444 POFUT2	ENST00000349485	p.A203V	c.608	0.004097615	7.931	1
4444 POFUT2	ENST00000349485	p.D226N	c.676	0.135130424	0	1
4445 EPHB4	ENST00000358173	p.L649M	c.1945	0.148126995	2.795	1
4445 EPHB4	ENST00000358173	p.K650N	c.1950	0.032088391	5.156	1
4445 EPHB4	ENST00000358173	p.V689I	c.2065	0.172132982	0	1
4446 ECE1	ENST00000374893	p.E667K	c.1999	0.076786686	0	1
4446 ECE1	ENST00000374893	p.P731H	c.2192	0.076786686	3.703	1
4447 LDLR	ENST00000557933	p.D131H	c.391	0.012551469	6.316	1
4447 LDLR	ENST00000557933	p.E174K	c.520	0.012551469	0	1
4448 SNX7	ENST00000306121	p.E88K	c.262	0.005512796	7.503	1
4448 SNX7	ENST00000306121	p.F113L	c.339	0.026975862	0	1
4448 SNX7	ENST00000306121	p.R172C	c.514	0.021463066	5.542	1
4449 CETP	ENST00000200676	p.Y392F	c.1175	0.059954007	4.06	1
4449 CETP	ENST00000200676	p.V455A	c.1364	0.059954007	0	1
4450 POU6F1	ENST00000389243	p.A248S	c.742	0.025980996	9.745	1
4450 POU6F1	ENST00000389243	p.R285W	c.853	1.001165367	0	1
4450 POU6F1	ENST00000389243	p.R285Q	c.854	1.001165367	0	1
4451 CD44	ENST00000428726	p.A99T	c.295	0.042393885	0	1
4451 CD44	ENST00000428726	p.A31V	c.92	0.042393885	4.56	1
4452 ESR1	ENST00000440973	p.H488Y	c.1462	0.054787858	5.19	1
4452 ESR1	ENST00000440973	p.T311M	c.932	1.027393929	0	2
4453 MMAB	ENST00000545712	p.E112K	c.334	0.007541149	7.051	1
4453 MMAB	ENST00000545712	p.M239I	c.717	0.007541149	0	1
4454 PDK2	ENST00000503176	p.S198P	c.592	0.039043284	4.751	1
4454 PDK2	ENST00000503176	p.I236V	c.706	0.088468891	0	1
4454 PDK2	ENST00000503176	p.A278T	c.832	0.053238231	4.284	1
4455 FASLG	ENST00000367721	p.D221N	c.661	0.007478683	7.063	1
4455 FASLG	ENST00000367721	p.H256Y	c.766	0.007478683	0	1
4456 TOP2A	ENST00000423485	p.G448V	c.1343	0.120742041	3.05	1
4456 TOP2A	ENST00000423485	p.R532C	c.1594	0.120742041	0	1
4457 MAP1LC3C	ENST00000357246	p.P52L	c.155	0.062891114	3.991	1
4457 MAP1LC3C	ENST00000357246	p.R76C	c.226	0.062891114	0	1
4458 PREP	ENST00000369110	p.F186L	c.556	0.016792956	0	1
4458 PREP	ENST00000369110	p.E239K	c.715	0.016792956	5.896	1
4459 KDR	ENST00000263923	p.E685K	c.2053	0.080818723	0	1
4459 KDR	ENST00000263923	p.T723I	c.2168	0.048052076	4.428	1
4459 KDR	ENST00000263923	p.R725C	c.2173	0.035959363	4.863	1
4460 F11	ENST00000403665	p.P41S	c.121	0.140139633	0	1
4460 F11	ENST00000403665	p.L118I	c.352	0.072448744	3.888	1
4460 F11	ENST00000403665	p.F188L	c.564	0.077497702	3.784	1
4461 IRS1	ENST00000305123	p.E224K	c.670	0.014751444	6.083	1
4461 IRS1	ENST00000305123	p.P233L	c.698	0.005605272	7.479	1
4461 IRS1	ENST00000305123	p.S261I	c.782	0.020356716	0	1
4462 MITD1	ENST00000289359	p.R126I	c.377	0.016527359	5.919	1
4462 MITD1	ENST00000289359	p.S190F	c.569	0.016527359	0	1
4463 ARHGEF11	ENST00000368194	p.A869V	c.2606	0.035722144	6.392	1
4463 ARHGEF11	ENST00000368194	p.A963V	c.2888	2.011907381	0	3
4464 HGFAC	ENST00000511533	p.G441W	c.1321	0.008065614	6.954	1

4464 HGFAC	ENST00000511533	p.V465I	c.1393	0.008065614	0	1
4465 ITGA4	ENST00000397033	p.R261W	c.781	0.018211581	5.779	1
4465 ITGA4	ENST00000397033	p.D287N	c.859	0.018211581	0	1
4466 SORT1	ENST00000256637	p.N473S	c.1418	0.114546081	0	1
4466 SORT1	ENST00000256637	p.P503S	c.1507	0.114546081	3.126	1
4467 SYK	ENST00000375754	p.M343I	c.1029	0.072947381	3.777	1
4467 SYK	ENST00000375754	p.A146G	c.437	0.072947381	0	1
4468 IL1R1	ENST00000410023	p.P43L	c.128	1.054787858	0	2
4468 IL1R1	ENST00000410023	p.E79D	c.237	0.109575715	4.19	1
4469 SHMT2	ENST00000328923	p.F79L	c.237	0.016980232	5.88	1
4469 SHMT2	ENST00000328923	p.H279L	c.836	0.016980232	0	1
4470 CHIA	ENST00000369740	p.A57T	c.169	0.008240799	6.923	1
4470 CHIA	ENST00000369740	p.A32D	c.95	0.008240799	0	1
4471 GLUD1	ENST00000277865	p.D414H	c.1240	0.009971319	6.648	1
4471 GLUD1	ENST00000277865	p.T536I	c.1607	0.009971319	0	1
4472 PRKAB1	ENST00000229328	p.R78P	c.233	0.021642335	0	1
4472 PRKAB1	ENST00000229328	p.E120Q	c.358	0.021642335	5.53	1
4473 INMT	ENST00000013222	p.G56V	c.167	0.189425571	0	1
4473 INMT	ENST00000013222	p.S77F	c.230	0.135101031	2.975	1
4473 INMT	ENST00000013222	p.Q79K	c.235	0.070156679	4.006	1
4474 CDC37	ENST00000222005	p.L341F	c.1021	0.042247214	4.565	1
4474 CDC37	ENST00000222005	p.L301P	c.902	0.042247214	0	1
4475 TP53I3	ENST00000238721	p.L44S	c.131	0.005347202	7.547	1
4475 TP53I3	ENST00000238721	p.Q95P	c.284	0.005347202	0	1
4476 FLT4	ENST00000261937	p.T168M	c.503	0.019586453	5.674	1
4476 FLT4	ENST00000261937	p.M191I	c.573	0.019586453	0	1
4477 CDK4	ENST00000257904	p.G48in_frame_del	c.134_132	0.014179987	0	1
4477 CDK4	ENST00000257904	p.R82Q	c.245	0.014179987	6.14	1
4478 HMOX1	ENST00000216117	p.P76H	c.227	0.169106029	0	1
4478 HMOX1	ENST00000216117	p.R185C	c.553	0.169106029	2.564	1
4479 F3	ENST00000334047	p.N43D	c.127	0.032622248	0	1
4479 F3	ENST00000334047	p.E127D	c.381	0.032622248	4.938	1
4480 FLNC	ENST00000325888	p.P1790L	c.5369	0.09297586	3.427	1
4480 FLNC	ENST00000325888	p.G1820S	c.5458	0.09297586	0	1
4481 AADAT	ENST00000353187	p.S11G	c.31	0.018853811	5.729	1
4481 AADAT	ENST00000353187	p.H287L	c.860	0.018853811	0	1
4482 NPY1R	ENST00000296533	p.S130F	c.389	0.115422789	0	1
4482 NPY1R	ENST00000296533	p.I162S	c.485	0.115422789	3.115	1
4483 NFASC	ENST00000367172	p.I43L	c.127	0.064168097	4.962	1
4483 NFASC	ENST00000367172	p.A120T	c.358	1.032084048	0	2
4484 EPHB2	ENST00000400191	p.V88M	c.262	0.159690672	0	1
4484 EPHB2	ENST00000400191	p.V163A	c.488	0.102038461	3.382	1
4484 EPHB2	ENST00000400191	p.V190M	c.568	0.079550969	3.971	1
4485 AHCYL1	ENST00000369799	p.S400P	c.1198	0.016481599	0	1
4485 AHCYL1	ENST00000369799	p.L445W	c.1334	0.016481599	5.923	1
4486 S100A10	ENST00000368811	p.M35R	c.104	0.007437327	0	1
4486 S100A10	ENST00000368811	p.P2L	c.5	0.007437327	7.071	1
4487 MERTK	ENST00000295408	p.S423F	c.1268	0.541910159	2.954	1
4487 MERTK	ENST00000295408	p.V459A	c.1376	1.165675513	0	2

4487	MERTK	ENST00000295408	p.R460G	c.1378	0.357061918	4.771	1
4488	IL20RA	ENST00000316649	p.P131S	c.391	1.003070358	0	1
4488	IL20RA	ENST00000316649	p.P131L	c.392	1.003070358	0	1
4488	IL20RA	ENST00000316649	p.V222I	c.664	0.003809982	9.036	1
4488	IL20RA	ENST00000316649	p.R228H	c.683	0.002330734	9.745	1
4489	F5	ENST00000367796	p.F34L	c.102	0.244572169	2.274	1
4489	F5	ENST00000367796	p.I98V	c.292	0.342556614	0	1
4489	F5	ENST00000367796	p.I112V	c.334	0.013112929	8.798	1
4489	F5	ENST00000367796	p.I117F	c.349	0.018182607	8.953	1
4489	F5	ENST00000367796	p.S120T	c.359	0.050886645	7.501	1
4489	F5	ENST00000367796	p.E124D	c.372	0.01071446	9.716	1
4489	F5	ENST00000367796	p.E151V	c.452	0.220550564	3.002	1
4490	SOCS2	ENST00000515556	p.G102R	c.304	0.012242144	0	1
4490	SOCS2	ENST00000515556	p.E28D	c.84	0.012242144	6.352	1
4491	PNLIP	ENST00000369221	p.R54C	c.160	1.040638755	5.621	2
4491	PNLIP	ENST00000369221	p.R23K	c.68	1.040638755	0	2
4492	PDE8A	ENST00000394553	p.D663G	c.1988	0.152936005	0	1
4492	PDE8A	ENST00000394553	p.R719Q	c.2156	0.152936005	2.709	1
4493	PVRL4	ENST00000368012	p.Q77H	c.231	0.006483551	0	1
4493	PVRL4	ENST00000368012	p.E124G	c.371	0.006483551	7.269	1
4494	CWC27	ENST00000381070	p.R95W	c.283	0.094339123	3.406	1
4494	CWC27	ENST00000381070	p.T116R	c.347	0.094339123	0	1
4495	PPP2R1A	ENST00000322088	p.A232T	c.694	0.11426469	3.149	1
4495	PPP2R1A	ENST00000322088	p.Q237R	c.710	0.015104365	6.203	1
4495	PPP2R1A	ENST00000322088	p.A273V	c.818	0.126308519	0	1
4496	EGFR	ENST00000275493	p.I475V	c.1423	0.027093405	0	1
4496	EGFR	ENST00000275493	p.G503C	c.1507	0.011800567	6.405	1
4496	EGFR	ENST00000275493	p.P512S	c.1534	0.015292838	6.031	1
4497	MTOR	ENST00000361445	p.E2033V	c.6098	0.027035522	5.209	1
4497	MTOR	ENST00000361445	p.W2101L	c.6302	0.027035522	0	1
4498	TP63	ENST00000264731	p.G349A	c.1046	1.071790984	0	1
4498	TP63	ENST00000264731	p.G349E	c.1046	1.071790984	0	1
4498	TP63	ENST00000264731	p.KSA188in_frame_del	c.559_567	0.125782228	3.991	1
4498	TP63	ENST00000264731	p.Y194S	c.581	0.01779974	6.812	1
4499	GABBR2	ENST00000259455	p.S227L	c.680	0.010836179	6.528	1
4499	GABBR2	ENST00000259455	p.R249W	c.745	0.010836179	0	1
4500	CLIC3	ENST00000494426	p.E79K	c.235	0.167356907	2.579	1
4500	CLIC3	ENST00000494426	p.R27P	c.80	0.167356907	0	1
4501	DPP7	ENST00000371579	p.E354K	c.1060	0.024948655	0	1
4501	DPP7	ENST00000371579	p.A193V	c.578	0.015690118	5.994	1
4501	DPP7	ENST00000371579	p.G194S	c.580	0.009258537	6.755	1
4502	PON1	ENST00000542556	p.A63T	c.187	0.052446852	4.253	1
4502	PON1	ENST00000542556	p.L129F	c.385	0.052446852	0	1
4503	CPN1	ENST00000370418	p.A139V	c.416	0.064704058	0	1
4503	CPN1	ENST00000370418	p.R27H	c.80	0.064704058	3.95	1
4504	CHKA	ENST00000265689	p.K429N	c.1287	0.078781462	3.666	1
4504	CHKA	ENST00000265689	p.I263T	c.788	0.078781462	0	1
4505	EFNB3	ENST00000226091	p.P63L	c.188	0.013668512	6.193	1
4505	EFNB3	ENST00000226091	p.R66Q	c.197	0.008099227	6.948	1

4505 EFN3	ENST00000226091	p.R106H	c.317	0.021767739	0	1
4506 MARK1	ENST00000366917	p.V238G	c.713	0.002746862	0	1
4506 MARK1	ENST00000366917	p.V293A	c.878	0.002746862	8.508	1
4507 TTBK1	ENST00000259750	p.Y169C	c.506	0.037473122	4.738	1
4507 TTBK1	ENST00000259750	p.W310L	c.929	0.037473122	0	1
4508 DNMT1	ENST00000359526	p.E448K	c.1342	2.011086901	0	3
4508 DNMT1	ENST00000359526	p.D599N	c.1795	0.04744069	6.495	1
4509 CHI3L2	ENST00000445067	p.G187W	c.559	0.002465336	8.664	1
4509 CHI3L2	ENST00000445067	p.P239S	c.715	0.002465336	0	1
4510 TF	ENST00000402696	p.W363C	c.1089	0.038969843	0	1
4510 TF	ENST00000402696	p.A605D	c.1814	0.00882615	6.824	1
4510 TF	ENST00000402696	p.V616I	c.1846	0.030143693	5.052	1
4511 MASP1	ENST00000296280	p.R57W	c.169	0.073099229	0	1
4511 MASP1	ENST00000296280	p.M136I	c.408	0.073099229	3.774	1
4512 CES1	ENST00000360526	p.G43E	c.128	0.008722758	6.841	1
4512 CES1	ENST00000360526	p.A160S	c.478	0.008722758	0	1
4513 TXNDC12	ENST00000371626	p.K75N	c.225	0.081559684	3.616	1
4513 TXNDC12	ENST00000371626	p.E145K	c.433	0.081559684	0	1
4514 DUSP22	ENST00000419235	p.C84F	c.251	0.141905263	2.817	1
4514 DUSP22	ENST00000419235	p.G11D	c.32	0.141905263	0	1
4515 F7	ENST00000375581	p.G222E	c.665	0.135951772	5.42	1
4515 F7	ENST00000375581	p.A266T	c.796	2.04197706	0	2
4515 F7	ENST00000375581	p.A266V	c.797	2.04197706	0	1
4515 F7	ENST00000375581	p.D316H	c.946	0.121740835	5.747	1
4516 SHBG	ENST00000380450	p.A57T	c.169	0.138216332	0	1
4516 SHBG	ENST00000380450	p.L172I	c.514	0.138216332	2.855	1
4517 P2RY12	ENST00000302632	p.D121N	c.361	1.1016724	0	2
4517 P2RY12	ENST00000302632	p.R231S	c.693	0.2033448	3.298	1
4518 CASQ2	ENST00000261448	p.D163H	c.487	0.070756181	0	1
4518 CASQ2	ENST00000261448	p.R251H	c.752	0.070756181	3.821	1
4519 CNOT1	ENST00000317147	p.N2012T	c.6035	0.037551127	0	1
4519 CNOT1	ENST00000317147	p.T2055M	c.6164	0.037551127	4.735	1
4520 TF	ENST00000402696	p.E231D	c.693	0.098686736	3.341	1
4520 TF	ENST00000402696	p.S317C	c.950	0.098686736	0	1
4521 SUB1	ENST00000265073	p.R75H	c.224	0.068583246	3.866	1
4521 SUB1	ENST00000265073	p.D76N	c.226	0.011056204	6.499	1
4521 SUB1	ENST00000265073	p.K126R	c.377	0.07963945	0	1
4522 CHEK2	ENST00000382580	p.A201V	c.602	0.12137056	0	1
4522 CHEK2	ENST00000382580	p.R224H	c.671	0.052932421	4.34	1
4522 CHEK2	ENST00000382580	p.D246E	c.738	0.075547817	3.796	1
4523 ITGAX	ENST00000562522	p.P919L	c.2756	0.008338479	0	1
4523 ITGAX	ENST00000562522	p.S1077F	c.3230	0.008338479	6.906	1
4524 ITGAX	ENST00000562522	p.K196N	c.588	0.015581738	6.004	1
4524 ITGAX	ENST00000562522	p.A231T	c.691	0.015581738	0	1
4525 CDK2	ENST00000553376	p.K34T	c.101	0.02456929	0	1
4525 CDK2	ENST00000553376	p.G13D	c.38	0.02456929	5.347	1
4527 HSD17B11	ENST00000358290	p.G47A	c.140	0.018517075	0	1
4527 HSD17B11	ENST00000358290	p.P239S	c.715	0.018517075	5.755	1
4528 DLD	ENST00000205402	p.G246A	c.737	0.009156424	0	1

4528 DLD	ENST00000205402	p.T276K	c.827	0.009156424	6.771	1
4529 HSP90AB1	ENST00000353801	p.I44M	c.132	0.013239569	6.239	1
4529 HSP90AB1	ENST00000353801	p.K72N	c.216	0.013239569	0	1
4531 NPR3	ENST00000265074	p.S336F	c.1007	0.014884969	0	1
4531 NPR3	ENST00000265074	p.E359Q	c.1075	0.014884969	6.07	1
4532 DNPEP	ENST00000523282	p.K387R	c.1160	0.077912575	3.682	1
4532 DNPEP	ENST00000523282	p.P419L	c.1256	0.077912575	0	1
4533 TTN	ENST00000589042	p.H14348Y	c.43042	0.022749837	5.458	1
4533 TTN	ENST00000589042	p.G14370R	c.43108	0.022749837	0	1
4534 GDNF	ENST00000427982	p.V144I	c.430	0.006176477	0	1
4534 GDNF	ENST00000427982	p.H215R	c.644	0.006176477	7.339	1
4535 SLK	ENST00000369755	p.I82M	c.246	0.076780302	3.809	1
4535 SLK	ENST00000369755	p.C86S	c.257	0.081583774	3.715	1
4535 SLK	ENST00000369755	p.I151V	c.451	0.147497811	0	1
4536 CUL1	ENST00000602748	p.P256K	c.766_767	0.016980232	0	1
4536 CUL1	ENST00000602748	p.R321H	c.962	0.016980232	5.88	1
4537 NPY1R	ENST00000296533	p.K114N	c.342	0.116064607	0	1
4537 NPY1R	ENST00000296533	p.I175N	c.524	0.116064607	3.107	1
4538 CTNND1	ENST00000428599	p.E676K	c.2026	0.008280881	6.916	1
4538 CTNND1	ENST00000428599	p.V720A	c.2159	0.008280881	0	1
4539 ARHGAP25	ENST00000409202	p.I48V	c.142	0.192375903	2.378	1
4539 ARHGAP25	ENST00000409202	p.R123H	c.368	0.192375903	0	1
4540 GNMT	ENST00000372808	p.G131D	c.392	0.016898043	5.887	1
4540 GNMT	ENST00000372808	p.A164V	c.491	0.016898043	0	1
4541 ABL1	ENST00000372348	p.D400Y	c.1198	0.138384077	2.906	1
4541 ABL1	ENST00000372348	p.F401L	c.1203	0.042208491	4.747	1
4541 ABL1	ENST00000372348	p.Y459H	c.1375	0.170655748	0	1
4542 BMX	ENST00000348343	p.H534R	c.1601	0.023980408	5.382	1
4542 BMX	ENST00000348343	p.S593L	c.1778	0.023980408	0	1
4543 BIRC7	ENST00000217169	p.V263I	c.787	0.032106295	0	1
4543 BIRC7	ENST00000217169	p.R294H	c.881	0.032106295	4.961	1
4544 FGA	ENST00000302053	p.H741Y	c.2221	0.082469244	3.6	1
4544 FGA	ENST00000302053	p.L863P	c.2588	0.082469244	0	1
4545 GGA3	ENST00000245541	p.L49M	c.145	0.051760666	0	1
4545 GGA3	ENST00000245541	p.G6K	c.17_16	0.051760666	4.272	1
4546 MVD	ENST00000301012	p.A176S	c.526	0.028577034	5.129	1
4546 MVD	ENST00000301012	p.M215I	c.645	0.009151045	7.655	1
4546 MVD	ENST00000301012	p.R27H	c.80	0.033538561	0	1
4547 FAP	ENST00000188790	p.L206H	c.617	0.015592542	0	1
4547 FAP	ENST00000188790	p.L296H	c.887	0.015592542	6.003	1
4548 NOS2	ENST00000313735	p.M444I	c.1332	0.012006837	0	1
4548 NOS2	ENST00000313735	p.H477Y	c.1429	0.012006837	6.38	1
4549 SSU72	ENST00000291386	p.V42A	c.125	0.019263318	5.698	1
4549 SSU72	ENST00000291386	p.N15K	c.45	0.019263318	0	1
4550 PAPOLG	ENST00000238714	p.L145V	c.433	0.00367765	8.087	1
4550 PAPOLG	ENST00000238714	p.R146K	c.437	0.005719085	7.45	1
4550 PAPOLG	ENST00000238714	p.L167V	c.499	0.009396735	0	1
4551 PTGIS	ENST00000244043	p.R359H	c.1076	0.006900899	0	1
4551 PTGIS	ENST00000244043	p.Y73H	c.217	0.006900899	7.179	1

4552	APAF1	ENST00000551964	p.S780I	c.2339	0.035158078	0	1
4552	APAF1	ENST00000551964	p.S829C	c.2485	0.035158078	4.83	1
4553	TLR8	ENST00000311912	p.T208N	c.623	0.139757731	2.839	1
4553	TLR8	ENST00000311912	p.S230Y	c.689	0.139757731	0	1
4554	TTN	ENST00000589042	p.E28489Q	c.85465	0.049446081	0	1
4554	TTN	ENST00000589042	p.P28536H	c.85607	0.049446081	4.338	1
4555	GNLY	ENST00000526018	p.D69N	c.205	0.164026407	0	1
4555	GNLY	ENST00000526018	p.V31M	c.91	0.164026407	2.608	1
4556	ITGB4	ENST00000450894	p.G1128D	c.3383	0.156697479	3.725	1
4556	ITGB4	ENST00000450894	p.R1158M	c.3473	0.149534011	3.795	1
4556	ITGB4	ENST00000450894	p.A1198T	c.3592	1.147667527	0	2
4557	PDE4B	ENST00000341517	p.D512N	c.1534	0.022686848	0	1
4557	PDE4B	ENST00000341517	p.R669S	c.2007	0.022686848	5.462	1
4558	XRCC5	ENST00000392132	p.A9T	c.25	0.081917305	4.9	1
4558	XRCC5	ENST00000392132	p.H131Y	c.391	1.033492921	0	1
4558	XRCC5	ENST00000392132	p.H131P	c.392	1.033492921	0	1
4559	FGF10	ENST00000264664	p.N159K	c.477	0.017169597	5.864	1
4559	FGF10	ENST00000264664	p.K195I	c.584	0.017169597	0	1
4560	EXOSC2	ENST00000372358	p.E232D	c.696	0.002796814	8.482	1
4560	EXOSC2	ENST00000372358	p.R238W	c.712	0.003035185	8.364	1
4560	EXOSC2	ENST00000372358	p.D270N	c.808	0.005831999	0	1
4561	PUS10	ENST00000316752	p.L116I	c.346	0.011533706	6.438	1
4561	PUS10	ENST00000316752	p.P22S	c.64	0.011533706	0	1
4562	AGO1	ENST00000373204	p.P286L	c.857	0.112734422	3.149	1
4562	AGO1	ENST00000373204	p.P321L	c.962	0.112734422	0	1
4563	NDRG2	ENST00000556147	p.P160L	c.479	0.03619665	4.788	1
4563	NDRG2	ENST00000556147	p.D263E	c.789	0.03619665	0	1
4564	FST	ENST00000256759	p.T213N	c.638	0.011517728	0	1
4564	FST	ENST00000256759	p.Y235H	c.703	0.011517728	6.44	1
4565	CANT1	ENST00000591773	p.A101V	c.302	0.058964891	0	1
4565	CANT1	ENST00000591773	p.L136M	c.406	0.058964891	4.084	1
4566	MC4R	ENST00000299766	p.M79I	c.237	0.029779354	5.226	1
4566	MC4R	ENST00000299766	p.R147M	c.440	0.141264899	0	1
4566	MC4R	ENST00000299766	p.A244V	c.731	0.117606616	3.126	1
4567	OPRK1	ENST00000265572	p.S44L	c.131	0.174705871	2.517	1
4567	OPRK1	ENST00000265572	p.S123F	c.368	0.174705871	0	1
4568	LRRC4	ENST00000249363	p.R155H	c.464	0.010033717	6.639	1
4568	LRRC4	ENST00000249363	p.E224G	c.671	0.010033717	0	1
4569	MVK	ENST00000228510	p.T37A	c.109	0.034196678	0	1
4569	MVK	ENST00000228510	p.P11L	c.32	0.034196678	4.87	1
4570	PDIA3	ENST00000300289	p.R344C	c.1030	1.005497533	0	2
4570	PDIA3	ENST00000300289	p.Y222H	c.664	0.010995065	7.507	1
4571	CD86	ENST00000330540	p.C40Y	c.119	0.003071161	0	1
4571	CD86	ENST00000330540	p.S90L	c.269	0.003071161	8.347	1
4572	CD1A	ENST00000289429	p.Q220R	c.659	0.007905103	6.983	1
4572	CD1A	ENST00000289429	p.V222L	c.664	0.072443497	3.787	1
4572	CD1A	ENST00000289429	p.A264T	c.790	0.0803486	0	1
4573	CPOX	ENST00000264193	p.S356R	c.1068	0.045154075	0	1
4573	CPOX	ENST00000264193	p.E302G	c.905	0.045154075	4.469	1

4574	ABL1	ENST00000372348	p.F91V	c.271	1.181872585	0	2
4574	ABL1	ENST00000372348	p.V130L	c.388	0.363745171	2.459	1
4575	GBP1	ENST00000370473	p.L67M	c.199	0.112578247	0	1
4575	GBP1	ENST00000370473	p.K246T	c.737	0.112578247	3.151	1
4576	GAS6	ENST00000357389	p.I480V	c.1438	0.003865846	8.015	1
4576	GAS6	ENST00000357389	p.A554S	c.1660	0.003865846	0	1
4577	HDAC3	ENST00000305264	p.V90I	c.268	0.012877533	0	1
4577	HDAC3	ENST00000305264	p.E140K	c.418	0.012877533	6.279	1
4578	TXNL4B	ENST00000423037	p.N86D	c.256	0.2913853	2.779	1
4578	TXNL4B	ENST00000423037	p.E23Q	c.67	1.14569265	0	1
4578	TXNL4B	ENST00000423037	p.E23D	c.69	1.14569265	0	1
4579	CSNK1E	ENST00000400206	p.H126Y	c.376	0.007796271	7.003	1
4579	CSNK1E	ENST00000400206	p.G175S	c.523	0.007796271	0	1
4580	IDE	ENST00000265986	p.F372Y	c.1115	0.19582789	0	1
4580	IDE	ENST00000265986	p.F317C	c.950	0.112581327	3.279	1
4580	IDE	ENST00000265986	p.D321E	c.963	0.01676723	6.139	1
4580	IDE	ENST00000265986	p.P330H	c.989	0.096447213	3.669	1
4581	TNFRSF21	ENST00000296861	p.K582in_frame_del	c.1746_1744	0.170957633	0	1
4581	TNFRSF21	ENST00000296861	p.E630K	c.1888	0.151607061	2.754	1
4581	TNFRSF21	ENST00000296861	p.L644M	c.1930	0.026086069	5.46	1
4582	GC	ENST00000504199	p.F178S	c.533	0.007976657	6.97	1
4582	GC	ENST00000504199	p.S200N	c.599	0.007976657	0	1
4583	CD46	ENST00000322875	p.Y247C	c.740	0.012693236	0	1
4583	CD46	ENST00000322875	p.S274I	c.821	0.007021524	7.154	1
4583	CD46	ENST00000322875	p.T275N	c.824	0.005671712	7.462	1
4584	SLC3A2	ENST00000377892	p.N342S	c.1025	0.058924033	4.085	1
4584	SLC3A2	ENST00000377892	p.A478V	c.1433	0.058924033	0	1
4585	MGAM	ENST00000475668	p.M1266T	c.3797	0.05440941	0	1
4585	MGAM	ENST00000475668	p.P2490H	c.7469	0.05440941	4.2	1
4586	SH3GL3	ENST00000324537	p.G99S	c.295	1.00994371	0	2
4586	SH3GL3	ENST00000324537	p.E134K	c.400	0.019887421	6.652	1
4587	RAN	ENST00000448750	p.H48Y	c.142	0.00839066	6.897	1
4587	RAN	ENST00000448750	p.T50I	c.149	0.008674522	6.849	1
4587	RAN	ENST00000448750	p.M197I	c.591	0.017065182	0	1
4588	C1S	ENST00000328916	p.T121M	c.362	0.013649576	6.195	1
4588	C1S	ENST00000328916	p.P160Q	c.479	0.013649576	0	1
4589	ACE2	ENST00000427411	p.K458T	c.1373	0.007850499	0	1
4589	ACE2	ENST00000427411	p.R204I	c.611	0.007850499	6.993	1
4590	OGG1	ENST00000302036	p.W47L	c.140	0.052229185	0	1
4590	OGG1	ENST00000302036	p.F142L	c.426	0.052229185	4.259	1
4591	POLD2	ENST00000452185	p.A69S	c.205	0.00298511	8.388	1
4591	POLD2	ENST00000452185	p.C91W	c.273	0.00298511	0	1
4592	TYW5	ENST00000354611	p.R108Q	c.323	0.081052472	3.625	1
4592	TYW5	ENST00000354611	p.R149Q	c.446	0.083299136	0	1
4592	TYW5	ENST00000354611	p.K174Q	c.520	0.002246664	8.798	1
4593	CETP	ENST00000200676	p.E133K	c.397	0.009698652	6.688	1
4593	CETP	ENST00000200676	p.D135N	c.403	0.009678505	6.691	1
4593	CETP	ENST00000200676	p.F184L	c.550	0.019377158	0	1
4594	KIF11	ENST00000260731	p.P338S	c.1012	0.011808749	0	1

4594 KIF11	ENST00000260731	p.A37T	c.109	0.011808749	6.404	1
4595 RXRA	ENST00000481739	p.V149A	c.446	1.104024842	0	2
4595 RXRA	ENST00000481739	p.G199S	c.595	0.208049684	3.265	1
4596 TPP1	ENST00000299427	p.Q56K	c.166	0.031620413	4.983	1
4596 TPP1	ENST00000299427	p.PLT93in_frame_del	c.286_278	0.031620413	0	1
4597 CRKL	ENST00000354336	p.A102V	c.305	0.069492447	0	1
4597 CRKL	ENST00000354336	p.A13P	c.37	0.069492447	3.847	1
4598 TNPO1	ENST00000337273	p.Y526C	c.1577	0.012182888	6.359	1
4598 TNPO1	ENST00000337273	p.Y569C	c.1706	0.012182888	0	1
4599 IL17F	ENST00000336123	p.S80Y	c.239	0.028577034	0	1
4599 IL17F	ENST00000336123	p.G106C	c.316	0.028577034	5.129	1
4600 PTPRG	ENST00000474889	p.Q856K	c.2566	0.031928753	4.969	1
4600 PTPRG	ENST00000474889	p.V1103I	c.3307	0.031928753	0	1
4601 VPS4B	ENST00000238497	p.E443K	c.1327	0.069927319	3.838	1
4601 VPS4B	ENST00000238497	p.E293A	c.878	0.069927319	0	1
4602 RELA	ENST00000406246	p.E127Q	c.379	0.009888723	6.66	1
4602 RELA	ENST00000406246	p.R149H	c.446	0.009888723	0	1
4603 GLMN	ENST00000370360	p.P219H	c.656	0.002003864	8.963	1
4603 GLMN	ENST00000370360	p.D284Y	c.850	0.002003864	0	1
4604 USP7	ENST00000344836	p.A530V	c.1589	1.007572577	0	2
4604 USP7	ENST00000344836	p.Q237P	c.710	0.015145153	7.045	1
4605 SUGT1	ENST00000343788	p.K190E	c.568	0.396392068	2.335	1
4605 SUGT1	ENST00000343788	p.L225F	c.673	1.198196034	0	2
4606 HHIP	ENST00000296575	p.P409Q	c.1226	0.008501894	0	1
4606 HHIP	ENST00000296575	p.Y474C	c.1421	0.008501894	6.878	1
4607 UCHL3	ENST00000377595	p.M37V	c.109	0.030542801	0	1
4607 UCHL3	ENST00000377595	p.A205V	c.614	0.008121714	6.944	1
4607 UCHL3	ENST00000377595	p.A224V	c.671	0.022421086	5.479	1
4608 TAS2R39	ENST00000446620	p.F136Y	c.407	0.092205716	3.439	1
4608 TAS2R39	ENST00000446620	p.F224L	c.670	0.092205716	0	1
4609 PTPRC	ENST00000442510	p.E1070K	c.3208	1.012841878	0	2
4609 PTPRC	ENST00000442510	p.R1170S	c.3510	0.025683756	6.283	1
4610 CLEC9A	ENST00000355819	p.W134R	c.400	0.048462075	0	1
4610 CLEC9A	ENST00000355819	p.T226K	c.677	0.048462075	4.367	1
4611 C1S	ENST00000328916	p.G440R	c.1318	0.041839227	4.579	1
4611 C1S	ENST00000328916	p.A585T	c.1753	0.041839227	0	1
4612 AGT	ENST00000366667	p.A397V	c.1190	0.004512054	0	1
4612 AGT	ENST00000366667	p.R116C	c.346	0.004512054	7.792	1
4613 DUSP16	ENST00000228862	p.M5V	c.13	0.031211166	0	1
4613 DUSP16	ENST00000228862	p.L98V	c.292	0.014967738	6.062	1
4613 DUSP16	ENST00000228862	p.L104I	c.310	0.016243429	5.944	1
4614 KLHL3	ENST00000309755	p.G490R	c.1468	0.027223569	0	1
4614 KLHL3	ENST00000309755	p.D511N	c.1531	0.027223569	5.199	1
4615 TNFSF4	ENST00000281834	p.E68K	c.202	0.016345077	5.935	1
4615 TNFSF4	ENST00000281834	p.S134F	c.401	0.005945443	7.394	1
4615 TNFSF4	ENST00000281834	p.V165L	c.493	0.02229052	0	1
4616 FGF12	ENST00000450716	p.V95L	c.283	0.189172388	3.555	1
4616 FGF12	ENST00000450716	p.L113M	c.337	0.105024968	3.369	1
4616 FGF12	ENST00000450716	p.S134L	c.401	0.190027573	0	1

4616 FGF12	ENST00000450716	p.P138L	c.413	0.104010728	6.938	1
4617 IFI16	ENST00000295809	p.I629M	c.1887	0.142427678	0	1
4617 IFI16	ENST00000295809	p.D652N	c.1954	0.0842809	3.657	1
4617 IFI16	ENST00000295809	p.R657Q	c.1970	0.068159653	3.985	1
4618 PPP1R13L	ENST00000418234	p.G761R	c.2281	0.089622203	3.48	1
4618 PPP1R13L	ENST00000418234	p.T786I	c.2357	0.089622203	0	1
4619 AGO2	ENST00000220592	p.L650I	c.1948	0.046166814	0	1
4619 AGO2	ENST00000220592	p.A690T	c.2068	0.046166814	4.437	1
4620 RNASE4	ENST00000304704	p.R82H	c.245	0.030670596	0	1
4620 RNASE4	ENST00000304704	p.P25S	c.73	0.030670596	5.027	1
4621 PTGES	ENST00000340607	p.A45V	c.134	0.065789447	0	1
4621 PTGES	ENST00000340607	p.R122Q	c.365	0.065789447	3.926	1
4622 TLR4	ENST00000355622	p.D95Y	c.283	0.059870951	4.062	1
4622 TLR4	ENST00000355622	p.A121D	c.362	0.059870951	0	1
4623 USP2	ENST00000260187	p.S422L	c.1265	0.155178436	0	1
4623 USP2	ENST00000260187	p.K488T	c.1463	0.155178436	2.688	1
4624 CYP19A1	ENST00000559878	p.E335K	c.1003	0.03890232	0	1
4624 CYP19A1	ENST00000559878	p.E357K	c.1069	0.03890232	4.684	1
4625 GUSB	ENST00000304895	p.V96I	c.286	0.018249491	5.776	1
4625 GUSB	ENST00000304895	p.N173S	c.518	0.018249491	0	1
4626 ASH2L	ENST00000343823	p.F139L	c.415	1.087777805	0	2
4626 ASH2L	ENST00000343823	p.A174V	c.521	0.175555609	3.51	1
4627 PPFIA2	ENST00000549396	p.A929V	c.2786	0.004364403	7.84	1
4627 PPFIA2	ENST00000549396	p.V962A	c.2885	0.004364403	0	1
4628 CA8	ENST00000317995	p.L99F	c.295	0.108640286	0	1
4628 CA8	ENST00000317995	p.A164T	c.490	0.038922997	4.784	1
4628 CA8	ENST00000317995	p.I166T	c.497	0.074968988	3.789	1
4629 HTRA3	ENST00000307358	p.Q403R	c.1208	6.091759415	0	7
4629 HTRA3	ENST00000307358	p.R438Q	c.1313	0.642315903	3.446	1
4630 NQO1	ENST00000320623	p.R211C	c.631	0.007883216	6.987	1
4630 NQO1	ENST00000320623	p.A29T	c.85	0.007883216	0	1
4631 PPP2CA	ENST00000481195	p.L170I	c.508	0.15442733	0	1
4631 PPP2CA	ENST00000481195	p.F220S	c.659	0.15442733	2.695	1
4632 NPM1	ENST00000517671	p.V99A	c.296	0.007726335	7.016	1
4632 NPM1	ENST00000517671	p.K32E	c.94	0.007726335	0	1
4633 UPP2	ENST00000605860	p.T218M	c.653	0.020890633	0	1
4633 UPP2	ENST00000605860	p.A329V	c.986	0.020890633	5.581	1
4634 NAALAD2	ENST00000534061	p.P540Q	c.1619	0.087413505	3.516	1
4634 NAALAD2	ENST00000534061	p.W236L	c.707	0.087413505	0	1
4635 LGALS2	ENST00000215886	p.F50I	c.148	0.116467554	4.102	1
4635 LGALS2	ENST00000215886	p.P78T	c.232	1.058233777	0	1
4635 LGALS2	ENST00000215886	p.P78Q	c.233	1.058233777	0	1
4636 CLC	ENST00000221804	p.A11T	c.31	0.108894274	0	1
4636 CLC	ENST00000221804	p.A120S	c.358	0.108894274	3.199	1
4637 DNAJB1	ENST00000254322	p.L172I	c.514	0.118036076	0	1
4637 DNAJB1	ENST00000254322	p.D241G	c.722	0.030451586	5.144	1
4637 DNAJB1	ENST00000254322	p.R249K	c.746	0.079902772	3.704	1
4637 DNAJB1	ENST00000254322	p.G251D	c.752	0.014020302	6.263	1
4638 CAND1	ENST00000545606	p.S124F	c.371	0.019572882	0	1

4638 CAND1	ENST00000545606	p.Q165R	c.494	0.019572882	5.675	1
4639 KEAP1	ENST00000171111	p.G603W	c.1807	0.137288599	0	1
4639 KEAP1	ENST00000171111	p.G332C	c.994	0.04342074	4.66	1
4639 KEAP1	ENST00000171111	p.G333S	c.997	0.101599552	3.355	1
4640 HDAC8	ENST00000373573	p.H334Y	c.1000	0.095533215	9.146	1
4640 HDAC8	ENST00000373573	p.M40V	c.118	0.147495945	5.678	1
4640 HDAC8	ENST00000373573	p.T311M	c.932	1.021297366	0	2
4641 TLE1	ENST00000376499	p.L722in_frame_del	c.2166_2164	0.063667991	0	1
4641 TLE1	ENST00000376499	p.S744N	c.2231	0.022270528	6.611	1
4641 TLE1	ENST00000376499	p.I754V	c.2260	0.053437636	4.226	1
4642 ITGA2B	ENST00000262407	p.R551W	c.1651	0.057154068	4.129	1
4642 ITGA2B	ENST00000262407	p.R590Q	c.1769	0.057154068	0	1
4643 PSPH	ENST00000437355	p.C18F	c.53	0.009407323	6.732	1
4643 PSPH	ENST00000437355	p.D183N	c.547	0.009407323	0	1
4645 ETV6	ENST00000396373	p.R369W	c.1105	4.008166876	0	2
4645 ETV6	ENST00000396373	p.R369L	c.1106	4.008166876	0	1
4645 ETV6	ENST00000396373	p.R369Q	c.1106	4.008166876	0	2
4645 ETV6	ENST00000396373	p.R418G	c.1252	0.040834379	6.936	1
4646 PARP16	ENST00000261888	p.E104D	c.312	0.041035035	4.607	1
4646 PARP16	ENST00000261888	p.Y267C	c.800	0.041035035	0	1
4647 OBSCN	ENST00000570156	p.G3893E	c.11678	0.201072179	0	1
4647 OBSCN	ENST00000570156	p.G3938V	c.11813	0.126086962	3.105	1
4647 OBSCN	ENST00000570156	p.A3940V	c.11819	0.094707905	3.559	1
4648 CYP2C9	ENST00000260682	p.G431E	c.1292	1.053996137	0	2
4648 CYP2C9	ENST00000260682	p.I88T	c.263	0.107992273	4.211	1
4649 UPP2	ENST00000605860	p.M160I	c.480	0.008920033	7.028	1
4649 UPP2	ENST00000605860	p.E184K	c.550	0.171802477	0	1
4649 UPP2	ENST00000605860	p.Y277F	c.830	0.165397838	2.607	1
4650 PROZ	ENST00000342783	p.Q192K	c.574	0.06237017	0	1
4650 PROZ	ENST00000342783	p.R246S	c.738	0.06237017	4.003	1
4651 TGM2	ENST00000361475	p.P373R	c.1118	0.128514228	2.96	1
4651 TGM2	ENST00000361475	p.G221C	c.661	0.128514228	0	1
4652 PTPN5	ENST00000358540	p.G445E	c.1334	0.076680311	0	1
4652 PTPN5	ENST00000358540	p.Q530K	c.1588	0.076680311	3.705	1
4653 MTERFD2	ENST00000391980	p.V115G	c.344	0.061260193	0	1
4653 MTERFD2	ENST00000391980	p.C142S	c.424	0.013630667	6.197	1
4653 MTERFD2	ENST00000391980	p.K146N	c.438	0.047629526	4.392	1
4654 TAS2R39	ENST00000446620	p.E93K	c.277	0.059375024	0	1
4654 TAS2R39	ENST00000446620	p.S116G	c.346	0.059375024	4.074	1
4655 PADI4	ENST00000375448	p.I336V	c.1006	0.138408073	0	1
4655 PADI4	ENST00000375448	p.A310T	c.928	0.138408073	2.853	1
4656 CEACAM5	ENST00000221992	p.T41R	c.122	0.020992241	6.574	1
4656 CEACAM5	ENST00000221992	p.S106F	c.317	1.010496121	0	2
4657 NF1	ENST00000358273	p.K1568R	c.4703	0.01594226	0	1
4657 NF1	ENST00000358273	p.G1668V	c.5003	0.01594226	5.971	1
4658 NUP98	ENST00000324932	p.S709C	c.2126	0.005027302	0	1
4658 NUP98	ENST00000324932	p.I758M	c.2274	0.005027302	7.636	1
4659 HSPBP1	ENST00000255631	p.R282Q	c.845	0.009618316	6.7	1
4659 HSPBP1	ENST00000255631	p.Q330L	c.989	0.009618316	0	1

4660 PPT2	ENST00000395523	p.S136F	c.407	0.064480199	3.955	1
4660 PPT2	ENST00000395523	p.H283N	c.846_847	0.064480199	0	1
4661 VAV1	ENST00000602142	p.E234Q	c.700	1.007850499	0	1
4661 VAV1	ENST00000602142	p.E234D	c.702	1.007850499	0	1
4661 VAV1	ENST00000602142	p.H293Q	c.879	0.015700997	6.993	1
4662 MAP2K7	ENST00000545011	p.L350M	c.1048	0.016933218	0	1
4662 MAP2K7	ENST00000545011	p.L403F	c.1207	0.016933218	5.884	1
4663 C3	ENST00000245907	p.E586D	c.1758	0.075050214	0	1
4663 C3	ENST00000245907	p.I786N	c.2357	0.075050214	3.736	1
4664 CHAT	ENST00000337653	p.D446N	c.1336	0.20546129	2.79	1
4664 CHAT	ENST00000337653	p.R566S	c.1696	0.240308398	0	1
4664 CHAT	ENST00000337653	p.W198G	c.592	0.156597642	3.385	1
4665 CAND1	ENST00000545606	p.I435V	c.1303	0.006057759	0	1
4665 CAND1	ENST00000545606	p.H472Y	c.1414	0.006057759	7.367	1
4666 ATXN3	ENST00000545170	p.G127E	c.380	0.302079461	1.727	1
4666 ATXN3	ENST00000545170	p.D175N	c.523	0.302079461	0	1
4667 STAMBPL1	ENST00000371924	p.V432L	c.1294	0.013120805	0	1
4667 STAMBPL1	ENST00000371924	p.D274V	c.821	0.013120805	6.252	1
4668 FARS2	ENST00000324331	p.T387I	c.1160	0.044163551	0	1
4668 FARS2	ENST00000324331	p.T67A	c.199	0.044163551	4.501	1
4669 CPA4	ENST00000222482	p.L420F	c.1258	0.014417851	0	1
4669 CPA4	ENST00000222482	p.A173T	c.517	0.014417851	6.116	1
4670 PPP3CA	ENST00000394854	p.NERMPPR480in_frame_del	c.1459_1439	0.032940357	4.924	1
4670 PPP3CA	ENST00000394854	p.H151Y	c.451	0.032940357	0	1
4671 EML1	ENST00000334192	p.S710F	c.2129	0.008048859	0	1
4671 EML1	ENST00000334192	p.G758E	c.2273	0.008048859	6.957	1
4672 DUSP11	ENST00000272444	p.E133G	c.398	0.267757706	1.901	1
4672 DUSP11	ENST00000272444	p.L194R	c.581	0.267757706	0	1
4673 VAV1	ENST00000602142	p.S413P	c.1237	0.070560275	3.825	1
4673 VAV1	ENST00000602142	p.R455W	c.1363	0.010401966	6.587	1
4673 VAV1	ENST00000602142	p.Y482H	c.1444	0.080962241	0	1
4674 USP2	ENST00000260187	p.E372G	c.1115	0.072846325	3.779	1
4674 USP2	ENST00000260187	p.D303A	c.909_908	0.072846325	0	1
4675 POLI	ENST00000579534	p.A682T	c.2044	0.027073027	0	1
4675 POLI	ENST00000579534	p.Y714D	c.2140	0.027073027	5.207	1
4676 BACE2	ENST00000330333	p.V147M	c.439	0.012877533	0	1
4676 BACE2	ENST00000330333	p.P207L	c.620	0.012877533	6.279	1
4677 MMP20	ENST00000260228	p.F221L	c.661	0.186468003	2.423	1
4677 MMP20	ENST00000260228	p.P253L	c.758	0.186468003	0	1
4678 CCNH	ENST00000256897	p.F110S	c.329	0.071694189	3.802	1
4678 CCNH	ENST00000256897	p.I143M	c.429	0.071694189	0	1
4679 SERPINA7	ENST00000327674	p.F82Y	c.245	0.221123921	3.452	1
4679 SERPINA7	ENST00000327674	p.D149N	c.445	1.094884489	0	2
4679 SERPINA7	ENST00000327674	p.L153F	c.457	0.045378537	8.156	1
4680 KIF3C	ENST00000264712	p.V371A	c.1112	0.083620472	0	1
4680 KIF3C	ENST00000264712	p.Q87L	c.260	0.083620472	3.58	1
4681 DHODH	ENST00000219240	p.T62N	c.185	0.073452357	8.232	1
4681 DHODH	ENST00000219240	p.R69W	c.205	1.053115997	0	1
4681 DHODH	ENST00000219240	p.R69Q	c.206	1.053115997	0	1

4681 DHODH	ENST00000219240	p.D105Y	c.313	0.166380386	4.328	1
4682 HS3ST5	ENST00000312719	p.P346R	c.1037	0.335410556	3.576	1
4682 HS3ST5	ENST00000312719	p.R325C	c.973	3.083852639	0	3
4682 HS3ST5	ENST00000312719	p.R325H	c.974	3.083852639	0	1
4683 ZG16B	ENST00000382280	p.E73K	c.217	0.10041175	3.316	1
4683 ZG16B	ENST00000382280	p.P186L	c.557	0.10041175	0	1
4684 PTPRE	ENST00000419012	p.Q500R	c.1499	0.069108166	3.855	1
4684 PTPRE	ENST00000419012	p.A632T	c.1894	0.069108166	0	1
4685 PC	ENST00000393958	p.D613G	c.1838	0.024843289	5.331	1
4685 PC	ENST00000393958	p.R644W	c.1930	0.024843289	0	1
4686 PKP2	ENST00000070846	p.I533V	c.1597	0.117196387	3.093	1
4686 PKP2	ENST00000070846	p.A570T	c.1708	0.117196387	0	1
4687 LILRB4	ENST00000434286	p.L143Q	c.428	0.081390262	3.619	1
4687 LILRB4	ENST00000434286	p.A178T	c.532	0.081390262	0	1
4688 VPS33A	ENST00000267199	p.L144F	c.430	0.02919773	5.098	1
4688 VPS33A	ENST00000267199	p.A175T	c.523	0.039818263	0	1
4688 VPS33A	ENST00000267199	p.M205I	c.615	0.010620533	6.557	1
4689 PRPSAP2	ENST00000268835	p.I108M	c.324	0.10896978	0	1
4689 PRPSAP2	ENST00000268835	p.T144S	c.431	0.10896978	3.198	1
4690 TGM3	ENST00000381458	p.R608W	c.1822	1.013193764	0	1
4690 TGM3	ENST00000381458	p.R608Q	c.1823	1.013193764	0	1
4690 TGM3	ENST00000381458	p.A692T	c.2074	0.026387528	6.244	1
4691 PIK3C3	ENST00000262039	p.K335N	c.1005	0.069327135	3.949	1
4691 PIK3C3	ENST00000262039	p.C336F	c.1007	0.033960238	7.059	1
4691 PIK3C3	ENST00000262039	p.H370R	c.1109	0.07224837	0	1
4692 CSNK2A2	ENST00000262506	p.F233L	c.699	0.064257114	3.96	1
4692 CSNK2A2	ENST00000262506	p.F285V	c.853	0.064257114	0	1
4693 ITGAX	ENST00000562522	p.F240L	c.718	0.079219533	3.658	1
4693 ITGAX	ENST00000562522	p.I281T	c.842	0.079219533	0	1
4694 DCTN1	ENST00000361874	p.R90C	c.268	0.100323262	3.398	1
4694 DCTN1	ENST00000361874	p.Q95H	c.285	0.063011165	4.119	1
4694 DCTN1	ENST00000361874	p.R32C	c.94	0.152415309	0	1
4695 SULT1C2	ENST00000437390	p.E36K	c.106	0.070854338	0	1
4695 SULT1C2	ENST00000437390	p.S132Y	c.395	0.070854338	3.819	1
4696 FGD3	ENST00000375482	p.W620R	c.1858	0.199022025	0	1
4696 FGD3	ENST00000375482	p.D667Y	c.1999	0.199022025	2.329	1
4697 KIF18A	ENST00000263181	p.R168C	c.502	1.004896613	0	2
4697 KIF18A	ENST00000263181	p.A230D	c.689	0.009793227	7.674	1
4698 PPM1K	ENST00000608933	p.I300S	c.899	0.080269738	3.639	1
4698 PPM1K	ENST00000608933	p.V326L	c.976	0.080269738	0	1
4699 ALKBH5	ENST00000399138	p.P157Q	c.470	0.072997962	3.776	1
4699 ALKBH5	ENST00000399138	p.R291W	c.871	0.072997962	0	1
4700 RBBP7	ENST00000380084	p.H219Y	c.655	1.010416396	0	2
4700 RBBP7	ENST00000380084	p.H243D	c.727	0.020832792	6.585	1
4701 SNX11	ENST00000393405	p.R57W	c.169	0.204475515	3.29	1
4701 SNX11	ENST00000393405	p.R25Q	c.74	1.102237757	0	2
4702 TTN	ENST00000589042	p.R33703Q	c.101108	0.103995939	3.348	1
4702 TTN	ENST00000589042	p.Y33758C	c.101273	0.064710908	4.085	1
4702 TTN	ENST00000589042	p.T33782A	c.101344	0.157133098	0	1

4703 SYT4	ENST00000255224	p.P192T	c.574	0.126569351	2.982	1
4703 SYT4	ENST00000255224	p.I254N	c.761	0.126569351	0	1
4704 CBX1	ENST00000393408	p.E120K	c.358	0.022343515	0	1
4704 CBX1	ENST00000393408	p.S141F	c.422	0.022343515	5.484	1
4705 APPL2	ENST00000551662	p.D147A	c.440	0.015843517	7.179	1
4705 APPL2	ENST00000551662	p.R177G	c.529	1.006900899	0	1
4705 APPL2	ENST00000551662	p.R177Q	c.530	1.006900899	0	1
4706 CSK	ENST00000309470	p.Y129C	c.386	0.030353359	5.042	1
4706 CSK	ENST00000309470	p.G162E	c.485	0.030353359	0	1
4707 GSTP1	ENST00000398606	p.H163Y	c.487	0.009999003	6.644	1
4707 GSTP1	ENST00000398606	p.N201D	c.601	0.009999003	0	1
4708 ASH2L	ENST00000343823	p.S192F	c.575	0.1273614	2.973	1
4708 ASH2L	ENST00000343823	p.D250Y	c.748	0.1273614	0	1
4709 A2M	ENST00000318602	p.K456R	c.1367	0.04410237	4.503	1
4709 A2M	ENST00000318602	p.I481N	c.1442	0.04410237	0	1
4710 FGF1	ENST00000359370	p.D51N	c.151	0.05101269	4.293	1
4710 FGF1	ENST00000359370	p.V152F	c.454	0.05101269	0	1
4711 ADPRH	ENST00000478399	p.R134W	c.400	0.036407585	4.967	1
4711 ADPRH	ENST00000478399	p.R160Q	c.479	0.17066923	0	1
4711 ADPRH	ENST00000478399	p.S209A	c.625	0.143130723	2.85	1
4712 ABL2	ENST00000502732	p.K403N	c.1209	0.074480161	0	1
4712 ABL2	ENST00000502732	p.V425M	c.1273	0.074480161	3.747	1
4713 CYP19A1	ENST00000559878	p.E483G	c.1448	0.143388378	2.802	1
4713 CYP19A1	ENST00000559878	p.R192C	c.574	0.143388378	0	1
4714 DDC	ENST00000444124	p.V382A	c.1145	0.016042024	5.962	1
4714 DDC	ENST00000444124	p.V404I	c.1210	0.016042024	0	1
4715 VCL	ENST00000211998	p.R669G	c.2005	0.051438772	4.281	1
4715 VCL	ENST00000211998	p.N231S	c.692	0.051438772	0	1
4716 BARD1	ENST00000260947	p.G574D	c.1721	0.022813	0	1
4716 BARD1	ENST00000260947	p.H606D	c.1816	0.022813	5.454	1
4717 P2RY13	ENST00000325602	p.S102C	c.305	0.135184345	3.887	1
4717 P2RY13	ENST00000325602	p.D288N	c.862	1.067592173	0	1
4717 P2RY13	ENST00000325602	p.D288G	c.863	1.067592173	0	1
4718 CNOT1	ENST00000317147	p.H1442Y	c.4324	0.05848038	4.141	1
4718 CNOT1	ENST00000317147	p.R1446H	c.4337	0.033551927	4.977	1
4718 CNOT1	ENST00000317147	p.P1517F	c.4550_4549	0.088432838	0	1
4719 AK2	ENST00000373449	p.H145L	c.434	0.215685336	0	1
4719 AK2	ENST00000373449	p.E170K	c.508	0.215685336	2.213	1
4720 B3GAT2	ENST00000230053	p.V222A	c.665	0.011932168	0	1
4720 B3GAT2	ENST00000230053	p.T294N	c.881	0.011932168	6.389	1
4721 NOS2	ENST00000313735	p.A348V	c.1043	0.030500993	0	1
4721 NOS2	ENST00000313735	p.T432I	c.1295	0.030500993	5.035	1
4722 HMGCS2	ENST00000369406	p.G232E	c.695	0.011932168	6.389	1
4722 HMGCS2	ENST00000369406	p.R274H	c.821	0.011932168	0	1
4723 OTC	ENST0000039007	p.A128V	c.383	0.032084048	0	1
4723 OTC	ENST0000039007	p.S156Y	c.467	0.032084048	4.962	1
4724 TTN	ENST00000589042	p.V24628I	c.73882	0.129138806	0	1
4724 TTN	ENST00000589042	p.A24709T	c.74125	0.058360059	4.203	1
4724 TTN	ENST00000589042	p.K24710N	c.74130	0.078906092	3.74	1

4725 FGF13	ENST00000370603	p.R120L	c.359	0.007976657	6.97	1
4725 FGF13	ENST00000370603	p.T164A	c.490	0.044323304	0	1
4725 FGF13	ENST00000370603	p.A201V	c.602	0.006782346	7.204	1
4725 FGF13	ENST00000370603	p.F204V	c.610	0.029564301	5.08	1
4726 GZMB	ENST00000382542	p.N138K	c.414	0.030841142	0	1
4726 GZMB	ENST00000382542	p.T218S	c.653	0.030841142	5.019	1
4727 TEAD2	ENST00000598810	p.Q357H	c.1071	0.016775506	0	1
4727 TEAD2	ENST00000598810	p.K393T	c.1178	0.00839066	6.897	1
4727 TEAD2	ENST00000598810	p.G287S	c.859	0.008384846	6.898	1
4728 FGFR4	ENST00000502906	p.C56Y	c.167	0.04591152	5.445	1
4728 FGFR4	ENST00000502906	p.R85C	c.253	1.02295576	0	2
4729 MUTYH	ENST00000450313	p.R116W	c.346	1.032509383	0	2
4729 MUTYH	ENST00000450313	p.R274Q	c.821	0.065018767	4.943	1
4730 CYP46A1	ENST00000261835	p.R251L	c.752	0.040740537	4.846	1
4730 CYP46A1	ENST00000261835	p.R262W	c.784	0.17767475	2.542	1
4730 CYP46A1	ENST00000261835	p.D289N	c.865	0.206474845	0	1
4731 ATG4A	ENST00000372232	p.Q83E	c.247	0.00537321	7.54	1
4731 ATG4A	ENST00000372232	p.I114L	c.340	0.00537321	0	1
4732 OPN1SW	ENST00000249389	p.G171C	c.511	0.053846635	5.215	1
4732 OPN1SW	ENST00000249389	p.R196S	c.586	1.026923317	0	1
4732 OPN1SW	ENST00000249389	p.R196H	c.587	1.026923317	0	1
4733 RET	ENST00000355710	p.G823E	c.2468	0.092333629	0	1
4733 RET	ENST00000355710	p.R844Q	c.2531	0.092333629	3.437	1
4734 MET	ENST00000318493	p.V1110I	c.3328	0.017062821	5.873	1
4734 MET	ENST00000318493	p.D1246H	c.3736	0.017062821	0	1
4735 CTPS1	ENST00000372616	p.T150I	c.449_450	0.008765183	0	1
4735 CTPS1	ENST00000372616	p.V180I	c.538	0.008765183	6.834	1
4736 HAT1	ENST00000264108	p.I114S	c.341	0.073812041	3.76	1
4736 HAT1	ENST00000264108	p.W184R	c.550	0.073812041	0	1
4737 KDR	ENST00000263923	p.E240D	c.720	0.111469261	3.309	1
4737 KDR	ENST00000263923	p.H269Y	c.805	0.115317519	3.255	1
4737 KDR	ENST00000263923	p.G296D	c.887	0.205648526	0	1
4738 CRYGB	ENST00000260988	p.M91I	c.273	0.097058609	0	1
4738 CRYGB	ENST00000260988	p.V127M	c.379	0.097058609	3.365	1
4739 FARP1	ENST00000376586	p.E844K	c.2530	0.021270533	5.555	1
4739 FARP1	ENST00000376586	p.Q883R	c.2648	0.021270533	0	1
4740 PDGFA	ENST00000354513	p.R128C	c.382	0.001786065	0	1
4740 PDGFA	ENST00000354513	p.A178T	c.532	0.001786065	9.129	1
4741 C8A	ENST00000361249	p.N482K	c.1446	0.28048587	2.834	1
4741 C8A	ENST00000361249	p.D323N	c.967	1.140242935	0	2
4742 TRIP10	ENST00000313244	p.R400Q	c.1199	0.018274807	0	1
4742 TRIP10	ENST00000313244	p.L476F	c.1426	0.018274807	5.774	1
4743 CPN1	ENST00000370418	p.E41K	c.121	1.028935813	0	1
4743 CPN1	ENST00000370418	p.E41Q	c.121	1.028935813	0	1
4743 CPN1	ENST00000370418	p.E101K	c.301	0.057871626	5.111	1
4744 SDK2	ENST00000392650	p.D522N	c.1564	0.213750544	0	1
4744 SDK2	ENST00000392650	p.G552S	c.1654	0.213750544	2.226	1
4745 TUSC3	ENST00000503731	p.R63C	c.187	0.446273486	3.164	1
4745 TUSC3	ENST00000503731	p.R117C	c.349	3.111568371	0	2

4745 TUSC3	ENST00000503731	p.R117H	c.350	3.111568371	0	2
4746 MPDZ	ENST00000546205	p.I395T	c.1184	0.048294409	0	1
4746 MPDZ	ENST00000546205	p.N441D	c.1321	0.048294409	4.372	1
4747 DPYS	ENST00000351513	p.G216C	c.646	1.013331658	0	1
4747 DPYS	ENST00000351513	p.G216S	c.646	1.013331658	0	1
4747 DPYS	ENST00000351513	p.W285C	c.855	0.026663316	6.229	1
4748 DYRK2	ENST00000344096	p.P506L	c.1517	0.017015578	0	1
4748 DYRK2	ENST00000344096	p.H532Y	c.1594	0.017015578	5.877	1
4749 PTPN4	ENST00000263708	p.Q565H	c.1695	0.027969533	5.16	1
4749 PTPN4	ENST00000263708	p.N604Y	c.1810	0.027969533	0	1
4750 PHYH	ENST00000263038	p.R201W	c.601	1.041148966	0	1
4750 PHYH	ENST00000263038	p.R201Q	c.602	1.041148966	0	1
4750 PHYH	ENST00000263038	p.H247Q	c.741	0.082297933	4.603	1
4751 MAP2K2	ENST00000262948	p.G83S	c.247	0.024929539	5.326	1
4751 MAP2K2	ENST00000262948	p.H104R	c.311	0.024929539	0	1
4752 PPP1CC	ENST00000340766	p.L38M	c.112	0.011899131	0	1
4752 PPP1CC	ENST00000340766	p.F152C	c.455	0.011899131	6.393	1
4753 KIT	ENST00000288135	p.F772V	c.2314	0.190386092	0	1
4753 KIT	ENST00000288135	p.R804W	c.2410	0.190386092	2.393	1
4754 RAB9A	ENST00000464506	p.V51M	c.151	0.207905525	3.266	1
4754 RAB9A	ENST00000464506	p.R170Q	c.509	1.103952762	0	2
4755 ASPA	ENST00000263080	p.Q138H	c.414	0.056445407	0	1
4755 ASPA	ENST00000263080	p.P217S	c.649	0.056445407	4.147	1
4756 CANT1	ENST00000591773	p.G343R	c.1027	1.07557223	0	1
4756 CANT1	ENST00000591773	p.G343D	c.1028	1.07557223	0	1
4756 CANT1	ENST00000591773	p.R301C	c.901	0.151144459	3.726	1
4757 CYTH1	ENST00000361101	p.V188I	c.562	0.016232173	5.945	1
4757 CYTH1	ENST00000361101	p.F214L	c.642	0.016232173	0	1
4759 XDH	ENST00000379416	p.R104K	c.311	0.080440494	7.246	1
4759 XDH	ENST00000379416	p.E138K	c.412	1.104524891	0	1
4759 XDH	ENST00000379416	p.E138D	c.414	1.104524891	0	1
4759 XDH	ENST00000379416	p.G159C	c.475	0.263139305	3.352	1
4760 TLR3	ENST00000296795	p.S236N	c.707	0.009698652	0	1
4760 TLR3	ENST00000296795	p.T262A	c.784	0.009698652	6.688	1
4761 MMAB	ENST00000545712	p.G87E	c.260	0.01903766	5.715	1
4761 MMAB	ENST00000545712	p.E91K	c.271	0.006881792	7.183	1
4761 MMAB	ENST00000545712	p.R190H	c.569	0.025919452	0	1
4762 DYSF	ENST00000410020	p.R977Q	c.2930	0.024348893	6.36	1
4762 DYSF	ENST00000410020	p.R1056Q	c.3167	1.012174447	0	2
4763 DDX39B	ENST00000417556	p.V357A	c.1070	0.031120305	5.006	1
4763 DDX39B	ENST00000417556	p.H333Y	c.997	0.031120305	0	1
4764 LILRB2	ENST00000391749	p.P410L	c.1229	0.07732078	3.693	1
4764 LILRB2	ENST00000391749	p.S43C	c.127	0.07732078	0	1
4765 HIST1H1B	ENST00000331442	p.P121A	c.361	0.021138254	5.564	1
4765 HIST1H1B	ENST00000331442	p.T187A	c.559	0.021138254	0	1
4766 SERPINA5	ENST00000554866	p.L400F	c.1198	0.016581985	6.786	1
4766 SERPINA5	ENST00000554866	p.R54I	c.161_162	0.02254205	0	1
4766 SERPINA5	ENST00000554866	p.Q276K	c.826	0.013480334	6.213	1
4767 PLEC	ENST00000322810	p.D677N	c.2029	0.030143693	6.052	1

4767 PLEC	ENST00000322810	p.R748C	c.2242	1.015071847	0	2
4768 TLR5	ENST00000366881	p.L438I	c.1312	0.014477938	6.11	1
4768 TLR5	ENST00000366881	p.F460L	c.1380	0.01975884	0	1
4768 TLR5	ENST00000366881	p.L507M	c.1519	0.005280902	7.565	1
4769 UBE2D2	ENST00000398733	p.P61S	c.181	0.031401994	4.993	1
4769 UBE2D2	ENST00000398733	p.E9Q	c.25	0.031401994	0	1
4770 PRDM12	ENST00000253008	p.T112N	c.335	0.107469561	3.218	1
4770 PRDM12	ENST00000253008	p.K187N	c.561	0.107469561	0	1
4771 SUV39H2	ENST00000354919	p.R353Q	c.1058	0.021196943	0	1
4771 SUV39H2	ENST00000354919	p.Y280S	c.839	0.021196943	5.56	1
4772 SAE1	ENST00000270225	p.H172R	c.515	0.104096971	0	1
4772 SAE1	ENST00000270225	p.K210N	c.630	0.104096971	3.264	1
4773 DICER1	ENST00000343455	p.F854L	c.2562	0.064433552	3.956	1
4773 DICER1	ENST00000343455	p.CLPSIL1053in_frame_del	c.3175_3158	0.064433552	0	1
4774 CUL3	ENST00000264414	p.N49D	c.145	0.011686607	0	1
4774 CUL3	ENST00000264414	p.A115T	c.343	0.011686607	6.419	1
4776 PRKCI	ENST00000295797	p.E559Q	c.1675	0.066661611	0	1
4776 PRKCI	ENST00000295797	p.K267N	c.801	0.066661611	3.907	1
4777 HCN4	ENST00000261917	p.K645N	c.1935	0.01594226	5.971	1
4777 HCN4	ENST00000261917	p.R669H	c.2006	0.01594226	0	1
4778 RPL4	ENST00000307961	p.E13K	c.37	0.001588631	0	1
4778 RPL4	ENST00000307961	p.E254K	c.760	0.001588631	9.298	1
4779 EIF4A3	ENST00000269349	p.F265C	c.794	0.097058609	3.365	1
4779 EIF4A3	ENST00000269349	p.M297I	c.891	0.097058609	0	1
4780 PYGM	ENST00000164139	p.H583L	c.1748	0.013084476	0	1
4780 PYGM	ENST00000164139	p.V742A	c.2225	0.013084476	6.256	1
4781 CNNM2	ENST00000369878	p.R454W	c.1360	0.082927821	0	1
4781 CNNM2	ENST00000369878	p.R488H	c.1463	0.082927821	3.592	1
4782 CDON	ENST00000392693	p.T857I	c.2570	0.029523345	0	1
4782 CDON	ENST00000392693	p.E909A	c.2726	0.029523345	5.082	1
4783 LHPP	ENST00000368842	p.R107C	c.319	0.011241669	6.475	1
4783 LHPP	ENST00000368842	p.N134S	c.401	0.011241669	0	1
4784 HUWE1	ENST00000342160	p.L4080F	c.12240	0.013994464	6.159	1
4784 HUWE1	ENST00000342160	p.L4104V	c.12310	0.06175623	0	1
4784 HUWE1	ENST00000342160	p.F4181C	c.12542	0.047761766	4.388	1
4785 KDR	ENST00000263923	p.T668K	c.2003	1.131578894	0	1
4785 KDR	ENST00000263923	p.T668M	c.2003	1.131578894	0	1
4785 KDR	ENST00000263923	p.S691Y	c.2072	0.263157789	2.926	1
4786 CSTA	ENST00000264474	p.G75R	c.223	0.018073253	5.79	1
4786 CSTA	ENST00000264474	p.E15D	c.45	0.018073253	0	1
4787 KDR	ENST00000263923	p.L151R	c.452	0.046294994	0	1
4787 KDR	ENST00000263923	p.D180N	c.538	0.046294994	4.433	1
4788 EPHA5	ENST00000273854	p.S66L	c.197	0.027223569	5.199	1
4788 EPHA5	ENST00000273854	p.Y99H	c.295	0.027223569	0	1
4789 DCPS	ENST00000263579	p.A220T	c.658	1.029564301	0	2
4789 DCPS	ENST00000263579	p.H279N	c.835	0.059128603	5.08	1
4790 CPN1	ENST00000370418	p.G341D	c.1022	0.069348092	0	1
4790 CPN1	ENST00000370418	p.V403M	c.1207	0.069348092	3.85	1
4791 NAT2	ENST00000286479	p.F7Y	c.20	0.006973023	7.164	1

4791 NAT2	ENST00000286479	p.T81I	c.242_243	0.006973023	0	1
4792 SORBS1	ENST00000607232	p.A1058T	c.3172	0.157126672	2.67	1
4792 SORBS1	ENST00000607232	p.P1111S	c.3331	0.157126672	0	1
4793 DAO	ENST00000228476	p.R199W	c.595	1.134064577	0	1
4793 DAO	ENST00000228476	p.R199Q	c.596	1.134064577	0	1
4793 DAO	ENST00000228476	p.R283W	c.847	0.268129154	2.899	1
4794 XDH	ENST00000379416	p.T1033S	c.3098	0.017725867	5.818	1
4794 XDH	ENST00000379416	p.V1082I	c.3244	0.017725867	0	1
4795 ERAP2	ENST00000437043	p.K96N	c.288	0.015030116	0	1
4795 ERAP2	ENST00000437043	p.Q123E	c.367	0.015030116	6.056	1
4796 PC	ENST00000393958	p.D799N	c.2395	0.063857505	3.969	1
4796 PC	ENST00000393958	p.V831M	c.2491	0.063857505	0	1
4797 IL3RA	ENST00000331035	p.A86P	c.256	1	0	1
4797 IL3RA	ENST00000331035	p.A86T	c.256	1	0	1
4798 SEC24B	ENST00000504968	p.N556H	c.1666	0.015030116	6.056	1
4798 SEC24B	ENST00000504968	p.S1093A	c.3277	0.015030116	0	1
4799 ALDH5A1	ENST00000348925	p.S121R	c.363	0.08820474	3.503	1
4799 ALDH5A1	ENST00000348925	p.R172H	c.515	0.08820474	0	1
4800 HSPA8	ENST00000227378	p.Y41H	c.121	1.032284825	0	2
4800 HSPA8	ENST00000227378	p.E231A	c.692	0.064569649	4.953	1
4801 FGF8	ENST00000320185	p.R129Q	c.386	0.008559247	9.854	1
4801 FGF8	ENST00000320185	p.I137M	c.411	0.176428929	0	1
4801 FGF8	ENST00000320185	p.A169V	c.506	0.15642372	2.791	1
4801 FGF8	ENST00000320185	p.A181V	c.542	0.035321725	5.018	1
4802 NFATC2	ENST00000396009	p.E606K	c.1816	0.043888902	4.51	1
4802 NFATC2	ENST00000396009	p.G663W	c.1987	0.043888902	0	1
4803 PLAT	ENST00000220809	p.E397K	c.1189	0.273573425	1.87	1
4803 PLAT	ENST00000220809	p.R524H	c.1571	0.273573425	0	1
4804 SNRNP200	ENST00000323853	p.E412D	c.1236	0.013965393	0	1
4804 SNRNP200	ENST00000323853	p.V894A	c.2681	0.013965393	6.162	1
4805 ITGA4	ENST00000397033	p.D439N	c.1315	0.017264621	7.441	1
4805 ITGA4	ENST00000397033	p.E508K	c.1522	2.005754874	0	1
4805 ITGA4	ENST00000397033	p.E508A	c.1523	2.005754874	0	1
4805 ITGA4	ENST00000397033	p.E508D	c.1524	2.005754874	0	1
4806 JMJD6	ENST00000445478	p.A75V	c.224	0.007715632	7.018	1
4806 JMJD6	ENST00000445478	p.R173M	c.518	0.008974206	6.8	1
4806 JMJD6	ENST00000445478	p.W196C	c.588	0.023509897	0	1
4806 JMJD6	ENST00000445478	p.P268S	c.802	0.006820059	7.196	1
4807 GSG2	ENST00000325418	p.R552L	c.1655	0.05212069	0	1
4807 GSG2	ENST00000325418	p.L669I	c.2005	0.05212069	4.262	1
4808 ACE2	ENST00000427411	p.N194K	c.582	0.028281452	6.144	1
4808 ACE2	ENST00000427411	p.H195Y	c.583	1.115663054	4.112	2
4808 ACE2	ENST00000427411	p.R219H	c.656	1.129803779	0	1
4808 ACE2	ENST00000427411	p.R219P	c.656	1.129803779	0	1
4809 GSTK1	ENST00000479303	p.M48I	c.144	0.051545847	4.278	1
4809 GSTK1	ENST00000479303	p.P3H	c.8	0.051545847	0	1
4810 CYP1A1	ENST00000567032	p.R377Q	c.1130	1.008980615	0	2
4810 CYP1A1	ENST00000567032	p.L420V	c.1258	0.010949433	7.513	1
4810 CYP1A1	ENST00000567032	p.R464C	c.1390_1389	0.007011797	8.156	1

4811	MAPK14	ENST00000229795	p.P191H	c.572	0.012242144	6.352	1
4812	LCN1	ENST00000263598	p.G77A	c.230	0.009472756	6.722	1
4812	LCN1	ENST00000263598	p.C171R	c.511	0.009472756	0	1
4813	TTR	ENST00000237014	p.L9V	c.25	0.030374406	6.041	1
4813	TTR	ENST00000237014	p.R123C	c.367	1.015187203	0	1
4813	TTR	ENST00000237014	p.R123H	c.368	1.015187203	0	1
4814	IL6R	ENST00000368485	p.R250I	c.749	0.00611683	7.353	1
4814	IL6R	ENST00000368485	p.G299R	c.895	0.00611683	0	1
4815	SYNCRIP	ENST00000369622	p.I353M	c.1059	0.083215726	0	1
4815	SYNCRIP	ENST00000369622	p.E397K	c.1189	0.083215726	3.587	1
4816	RARB	ENST00000404969	p.E343Q	c.1027	0.102663838	0	1
4816	RARB	ENST00000404969	p.A255T	c.763	0.102663838	3.284	1
4817	CHAT	ENST00000337653	p.L408H	c.1223	0.081559684	0	1
4817	CHAT	ENST00000337653	p.A217V	c.650	0.081559684	3.616	1
4818	MSN	ENST00000360270	p.A532D	c.1595	0.071793647	3.8	1
4818	MSN	ENST00000360270	p.Q160H	c.480	0.071793647	0	1
4819	KLHL40	ENST00000287777	p.V553I	c.1657	0.071644512	0	1
4819	KLHL40	ENST00000287777	p.F608C	c.1823	0.071644512	3.803	1
4820	CAB39	ENST00000409788	p.L131F	c.393	0.045185384	4.468	1
4820	CAB39	ENST00000409788	p.S163L	c.488	0.045185384	0	1
4821	HGD	ENST00000283871	p.S366I	c.1097	0.05101269	0	1
4821	HGD	ENST00000283871	p.D91H	c.271	0.05101269	4.293	1
4822	PTPRM	ENST00000400060	p.A73D	c.218	0.00927781	6.752	1
4822	PTPRM	ENST00000400060	p.P110T	c.328	0.078003819	0	1
4822	PTPRM	ENST00000400060	p.P136R	c.407	0.068726009	3.863	1
4823	B3GAT2	ENST00000230053	p.V227L	c.679	0.027814867	0	1
4823	B3GAT2	ENST00000230053	p.E284V	c.851	0.027814867	5.168	1
4824	GFPT1	ENST00000357308	p.H377D	c.1129	0.011187256	6.482	1
4824	GFPT1	ENST00000357308	p.V462A	c.1385	0.011187256	0	1
4825	ANXA5	ENST00000296511	p.R50H	c.149	0.043164827	4.534	1
4825	ANXA5	ENST00000296511	p.A83S	c.247	0.043164827	0	1
4826	AOC3	ENST00000308423	p.T381M	c.1142	0.086930123	0	1
4826	AOC3	ENST00000308423	p.P215L	c.644	0.086930123	3.524	1
4828	CYP2C9	ENST00000260682	p.K185T	c.554	0.017313005	6.852	1
4828	CYP2C9	ENST00000260682	p.E250K	c.748	1.008656503	0	2
4829	PPIF	ENST00000225174	p.P72Q	c.215	0.051474439	0	1
4829	PPIF	ENST00000225174	p.Y121S	c.362	0.051474439	4.28	1
4830	IFNB1	ENST00000380232	p.D94N	c.280	0.010657405	0	1
4830	IFNB1	ENST00000380232	p.E158K	c.472	0.010657405	6.552	1
4831	ASL	ENST00000304874	p.A404T	c.1210	0.010957025	6.512	1
4831	ASL	ENST00000304874	p.W428S	c.1283	0.010957025	0	1
4832	BTK	ENST00000308731	p.K60E	c.178	0.071828285	3.89	1
4832	BTK	ENST00000308731	p.E108K	c.322	0.132335469	0	1
4832	BTK	ENST00000308731	p.N161T	c.482	0.069260225	3.946	1
4833	CCL20	ENST00000358813	p.L34F	c.100	0.25348987	0	1
4833	CCL20	ENST00000358813	p.I60N	c.179	0.25348987	1.98	1
4834	ABCB10	ENST00000344517	p.W440G	c.1318	1.011454037	0	1
4834	ABCB10	ENST00000344517	p.W440C	c.1320	1.011454037	0	1
4834	ABCB10	ENST00000344517	p.A296V	c.887	0.022908074	6.448	1

4835	SGPL1	ENST00000373202	p.V378I	c.1132	0.009080579	0	1
4835	SGPL1	ENST00000373202	p.K219R	c.656	0.009080579	6.783	1
4836	SELE	ENST00000333360	p.I56V	c.166	0.061896429	4.014	1
4836	SELE	ENST00000333360	p.E92K	c.274	0.061896429	0	1
4837	APLP1	ENST00000221891	p.E393D	c.1179	0.01147788	0	1
4837	APLP1	ENST00000221891	p.R415C	c.1243	0.01147788	6.445	1
4838	CAPN2	ENST00000295006	p.R469W	c.1405	0.091125586	0	1
4838	CAPN2	ENST00000295006	p.E205K	c.613	0.091125586	3.456	1
4839	PCDH9	ENST00000544246	p.A265V	c.794	0.075362989	0	1
4839	PCDH9	ENST00000544246	p.L318F	c.954	0.075362989	3.73	1
4840	SLC4A1	ENST00000262418	p.E68K	c.202	0.124481219	0	1
4840	SLC4A1	ENST00000262418	p.G172V	c.515	0.124481219	3.006	1
4841	CTTN	ENST00000376561	p.D479V	c.1436	0.013489681	0	1
4842	GBP1	ENST00000370473	p.R406H	c.1217	0.142694338	0	1
4842	GBP1	ENST00000370473	p.P451L	c.1352	0.142694338	2.809	1
4843	PCK1	ENST00000319441	p.P273H	c.818	0.01406253	0	1
4843	PCK1	ENST00000319441	p.K304M	c.911	0.01406253	6.152	1
4844	UPF3B	ENST00000276201	p.H70Y	c.208	0.08478777	4.56	1
4844	UPF3B	ENST00000276201	p.P75L	c.224	0.019763743	6.661	1
4844	UPF3B	ENST00000276201	p.R113C	c.337	1.052275757	0	1
4844	UPF3B	ENST00000276201	p.R113H	c.338	1.052275757	0	1
4845	AP1B1	ENST00000405198	p.D234N	c.700	0.006973023	7.164	1
4845	AP1B1	ENST00000405198	p.D273N	c.817	0.006973023	0	1
4846	GRM3	ENST00000361669	p.E49K	c.145	0.168754748	0	1
4846	GRM3	ENST00000361669	p.D102N	c.304	0.168754748	2.567	1
4847	GRM5	ENST00000305447	p.M202V	c.604	0.078563336	0	1
4847	GRM5	ENST00000305447	p.S304R	c.912	0.078563336	3.67	1
4848	FDPS	ENST00000356657	p.D197G	c.590	0.110108672	3.183	1
4848	FDPS	ENST00000356657	p.D240Y	c.718	0.110108672	0	1
4849	SRP19	ENST00000505459	p.N43S	c.128	0.015789637	6.134	1
4849	SRP19	ENST00000505459	p.P44L	c.131	0.110444829	3.199	1
4849	SRP19	ENST00000505459	p.P20H	c.59	0.123133357	0	1
4850	MAP2K4	ENST00000415385	p.L396V	c.1186	1.016676958	0	1
4850	MAP2K4	ENST00000415385	p.L396P	c.1187	1.016676958	0	1
4850	MAP2K4	ENST00000415385	p.S195L	c.584	1.016676958	6.906	2
4851	TBX5	ENST00000405440	p.A130D	c.389	1.023389422	0	1
4851	TBX5	ENST00000405440	p.A130V	c.389	1.023389422	0	1
4851	TBX5	ENST00000405440	p.H164Y	c.490	0.046778843	5.418	1
4852	GDNF	ENST00000427982	p.R129K	c.386	0.003257543	9.262	1
4852	GDNF	ENST00000427982	p.E170Q	c.508	1.001628772	0	1
4852	GDNF	ENST00000427982	p.E170D	c.510	1.001628772	0	1
4853	SGK1	ENST00000367858	p.L279in_frame_del	c.839_837	0.13860008	0	1
4853	SGK1	ENST00000367858	p.I323V	c.967	0.13860008	2.851	1
4854	PRKAA2	ENST00000371244	p.R442K	c.1325	0.011646175	0	1
4854	PRKAA2	ENST00000371244	p.M537I	c.1611	0.011646175	6.424	1
4855	MTHFD1	ENST00000545908	p.T132I	c.395	0.060917477	4.037	1
4855	MTHFD1	ENST00000545908	p.S164F	c.491	0.060917477	0	1
4856	C4A	ENST00000428956	p.S1116P	c.3346	0.00669825	0	1
4856	C4A	ENST00000428956	p.S1171F	c.3512	0.00669825	7.222	1

4857	RET	ENST00000355710	p.R813W	c.2437	0.079109787	4.66	1
4857	RET	ENST00000355710	p.R912L	c.2735	1.039554894	0	1
4857	RET	ENST00000355710	p.R912Q	c.2735	1.039554894	0	1
4858	CFH	ENST00000367429	p.P1080L	c.3239	0.02547101	0	1
4858	CFH	ENST00000367429	p.S1105Y	c.3314	0.02547101	5.295	1
4859	EPHA2	ENST00000358432	p.R425H	c.1274	1.014288517	0	1
4859	EPHA2	ENST00000358432	p.R425L	c.1274	1.014288517	0	1
4859	EPHA2	ENST00000358432	p.P329S	c.985	0.028577034	6.129	1
4860	CA8	ENST00000317995	p.N84S	c.251	0.118421259	3.078	1
4860	CA8	ENST00000317995	p.Q190H	c.570	0.118421259	0	1
4861	SULT1E1	ENST00000226444	p.E55K	c.163	0.39610711	2.921	1
4861	SULT1E1	ENST00000226444	p.R77Q	c.230	2.132035703	0	3
4862	NF1	ENST00000358273	p.Q1617H	c.4851	0.027814867	6.168	1
4862	NF1	ENST00000358273	p.D1837N	c.5509	1.013907433	0	2
4863	ADPRHL2	ENST00000373178	p.R245C	c.733	0.060120466	4.056	1
4863	ADPRHL2	ENST00000373178	p.E266Q	c.796	0.060120466	0	1
4864	CXCR1	ENST00000295683	p.R175C	c.523	1.18737495	0	2
4864	CXCR1	ENST00000295683	p.V201L	c.601	0.3747499	2.416	1
4865	CTPS2	ENST00000359276	p.L432V	c.1294	0.016447362	0	1
4865	CTPS2	ENST00000359276	p.I489M	c.1467	0.016447362	5.926	1
4866	DBB2	ENST00000256996	p.T371M	c.1112	1.006280086	0	2
4866	DBB2	ENST00000256996	p.S396L	c.1187	0.165284309	7.315	1
4867	EIF1AX	ENST00000379607	p.S74L	c.221	0.006768257	7.207	1
4867	EIF1AX	ENST00000379607	p.A113V	c.338	0.006768257	0	1
4868	CLEC4E	ENST00000299663	p.C79R	c.235	0.061001985	4.035	1
4868	CLEC4E	ENST00000299663	p.G209E	c.626	0.061001985	0	1
4869	REG3A	ENST00000305165	p.G85R	c.253	0.085117091	3.833	1
4869	REG3A	ENST00000305165	p.W133L	c.398	0.227958026	2.231	1
4869	REG3A	ENST00000305165	p.W158C	c.474	0.283181113	0	1
4870	RPAP3	ENST00000005386	p.A282T	c.844	0.082013203	3.608	1
4870	RPAP3	ENST00000005386	p.D312Y	c.934	0.082013203	0	1
4871	DLG4	ENST00000399510	p.R356Q	c.1067	0.028105572	5.153	1
4871	DLG4	ENST00000399510	p.A433T	c.1297	0.028105572	0	1
4872	VDR	ENST00000550325	p.R418H	c.1253	0.166200889	0	1
4872	VDR	ENST00000550325	p.R171W	c.511	0.166200889	2.589	1
4873	IFNG	ENST00000229135	p.S88N	c.263	0.038580081	0	1
4873	IFNG	ENST00000229135	p.N33K	c.99	0.038580081	4.696	1
4874	CUTA	ENST00000374500	p.C94Y	c.281	0.122173221	0	1
4874	CUTA	ENST00000374500	p.E137G	c.410	0.122173221	3.033	1
4875	INADL	ENST00000371158	p.I137T	c.410	0.300200857	2.736	1
4875	INADL	ENST00000371158	p.A173in_frame_del	c.516_518	1.150100428	0	1
4875	INADL	ENST00000371158	p.A173T	c.517	1.150100428	0	1
4876	ROCK2	ENST00000315872	p.D255E	c.765	0.026515872	0	1
4876	ROCK2	ENST00000315872	p.P293T	c.877	0.026515872	5.237	1
4877	SEC23A	ENST00000307712	p.L45P	c.134	0.137071449	2.867	1
4877	SEC23A	ENST00000307712	p.P453R	c.1358	0.137071449	0	1
4878	LIFR	ENST00000263409	p.V277M	c.829	0.045278265	6.05	1
4878	LIFR	ENST00000263409	p.E319K	c.955	2.015092755	0	3
4879	DPP4	ENST00000360534	p.E668K	c.2002	0.175312406	0	1

4879 DPP4	ENST00000360534	p.G260A	c.779	0.175312406	2.512	1
4880 ALKBH8	ENST00000417449	p.MV141in_frame_del	c.425_420	0.018866884	5.728	1
4880 ALKBH8	ENST00000417449	p.G218C	c.652	0.018866884	0	1
4881 CYP2A6	ENST00000301141	p.S465P	c.1393	0.013415085	0	1
4881 CYP2A6	ENST00000301141	p.D169N	c.505	0.013415085	6.22	1
4883 IL1R1	ENST00000410023	p.L246M	c.736	0.010401966	0	1
4883 IL1R1	ENST00000410023	p.I293T	c.878	0.010401966	6.587	1
4884 CASC5	ENST00000346991	p.R2122I	c.6365	0.012318753	0	1
4884 CASC5	ENST00000346991	p.E2241K	c.6721	0.012318753	6.343	1
4885 IQGAP1	ENST00000268182	p.K1165N	c.3495	0.032084048	0	1
4885 IQGAP1	ENST00000268182	p.P1273A	c.3817	0.032084048	4.962	1
4886 CYP1A1	ENST00000567032	p.R206H	c.617	0.003955292	7.982	1
4886 CYP1A1	ENST00000567032	p.Y207C	c.620	0.062586703	3.998	1
4886 CYP1A1	ENST00000567032	p.M265I	c.795	0.066541996	0	1
4887 FAR5B	ENST00000281828	p.N503H	c.1507	0.131032809	0	1
4887 FAR5B	ENST00000281828	p.P577S	c.1729	0.131032809	2.932	1
4888 SOS1	ENST00000426016	p.D430A	c.1289	0.03179624	5.975	1
4888 SOS1	ENST00000426016	p.N474K	c.1422	1.01589812	0	2
4889 FGF10	ENST00000264664	p.T86I	c.257	0.008561029	0	1
4889 FGF10	ENST00000264664	p.A199V	c.596	0.008561029	6.868	1
4890 TF	ENST00000402696	p.R475T	c.1424	0.014229216	6.135	1
4890 TF	ENST00000402696	p.P482S	c.1444	0.010896435	6.52	1
4890 TF	ENST00000402696	p.L681P	c.2042	0.025125651	0	1
4891 GRB10	ENST00000398812	p.R520H	c.1559	0.012958118	0	1
4891 GRB10	ENST00000398812	p.L567M	c.1699	0.012958118	6.27	1
4892 ECHS1	ENST00000368547	p.M103I	c.309	0.103163176	3.277	1
4892 ECHS1	ENST00000368547	p.M276V	c.826	0.103163176	0	1
4893 GSN	ENST00000373818	p.V526A	c.1577	0.028557233	0	1
4893 GSN	ENST00000373818	p.R741G	c.2221	0.028557233	5.13	1
4894 RAB18	ENST00000423465	p.L200S	c.599	0.064480199	0	1
4894 RAB18	ENST00000423465	p.S243T	c.728	0.064480199	3.955	1
4895 TATDN3	ENST00000532324	p.V146A	c.437	0.010344445	0	1
4895 TATDN3	ENST00000532324	p.F172L	c.514	0.010344445	6.595	1
4896 PRKACA	ENST00000308677	p.L83P	c.248	1.037917299	0	2
4896 PRKACA	ENST00000308677	p.K318N	c.954	0.075834598	4.721	1
4897 RAB7A	ENST00000265062	p.A159V	c.476	0.009030365	0	1
4897 RAB7A	ENST00000265062	p.K31N	c.93	0.009030365	6.791	1
4898 ROBO2	ENST00000332191	p.E709Q	c.2125	0.22221067	0	1
4898 ROBO2	ENST00000332191	p.T732A	c.2194	0.22221067	2.17	1
4899 CLEC5A	ENST00000546910	p.E94K	c.280	2.007041019	0	3
4899 CLEC5A	ENST00000546910	p.R135S	c.403	0.022293281	7.15	1
4900 PECR	ENST00000265322	p.R73Q	c.218	0.059705184	4.066	1
4900 PECR	ENST00000265322	p.T97A	c.289	0.059705184	0	1
4901 NT5C2	ENST00000404739	p.K361N	c.1083	0.028222703	0	1
4901 NT5C2	ENST00000404739	p.R456C	c.1366	0.028222703	5.147	1
4902 OAS1	ENST00000445409	p.Y51C	c.152	0.011857963	6.398	1
4902 OAS1	ENST00000445409	p.E101K	c.301	0.011857963	0	1
4903 MAPK8	ENST00000374189	p.L115I	c.343	1.02110897	0	2
4903 MAPK8	ENST00000374189	p.E217Q	c.649	0.04221794	5.566	1

4904 MRE11A	ENST00000407439	p.L47V	c.139	0.012885684	0	1
4904 MRE11A	ENST00000407439	p.E80K	c.238	0.00994371	6.652	1
4904 MRE11A	ENST00000407439	p.V153A	c.458	0.002941974	8.409	1
4905 ANK1	ENST00000396942	p.A478V	c.1433	0.070756181	4.821	1
4905 ANK1	ENST00000396942	p.A494T	c.1480	0.015282242	7.032	1
4905 ANK1	ENST00000396942	p.L522F	c.1564	1.043019212	0	1
4905 ANK1	ENST00000396942	p.L522H	c.1565	1.043019212	0	1
4906 STIM1	ENST00000300737	p.R69H	c.206	0.01070182	0	1
4906 STIM1	ENST00000300737	p.S116N	c.347	0.01070182	6.546	1
4907 NUDT10	ENST00000356450	p.T93M	c.278	0.063197005	3.984	1
4907 NUDT10	ENST00000356450	p.A20V	c.59	0.063197005	0	1
4909 NEDD4	ENST00000508342	p.R541I	c.1622	0.012267627	6.349	1
4909 NEDD4	ENST00000508342	p.S574I	c.1721	0.012267627	0	1
4910 ERBB3	ENST00000267101	p.L792V	c.2374	0.014091803	6.149	1
4910 ERBB3	ENST00000267101	p.S846I	c.2537	0.014091803	0	1
4911 TLL1	ENST00000507499	p.H252Y	c.754	0.023947187	0	1
4911 TLL1	ENST00000507499	p.G288R	c.862	0.023947187	5.384	1
4912 S100A2	ENST00000368708	p.N87S	c.260	0.173258736	0	1
4912 S100A2	ENST00000368708	p.H17Y	c.49	0.173258736	2.529	1
4913 THBS2	ENST00000366787	p.L668P	c.2003	0.021567459	0	1
4913 THBS2	ENST00000366787	p.D943Y	c.2827	0.021567459	5.535	1
4914 ZFYVE9	ENST00000371591	p.H1350N	c.4048	0.019143521	5.707	1
4914 ZFYVE9	ENST00000371591	p.I1420S	c.4259	0.019143521	0	1
4915 PRL	ENST00000306482	p.W119C	c.357	0.052048486	0	1
4915 PRL	ENST00000306482	p.T151I	c.452	0.052048486	4.264	1
4916 NFATC1	ENST00000427363	p.R487C	c.1459	0.248962438	2.006	1
4916 NFATC1	ENST00000427363	p.T551M	c.1652	0.248962438	0	1
4918 NOS3	ENST00000297494	p.R262Q	c.785	1.074531805	0	2
4918 NOS3	ENST00000297494	p.R285H	c.854	0.149063609	3.746	1
4919 DBT	ENST00000370132	p.R61L	c.182	0.008431471	6.89	1
4919 DBT	ENST00000370132	p.D96H	c.286	0.003887343	8.007	1
4919 DBT	ENST00000370132	p.T140M	c.419	0.012318813	0	1
4920 HGF	ENST00000222390	p.C211F	c.632	0.094795508	4.984	1
4920 HGF	ENST00000222390	p.A289T	c.865	2.031598503	0	3
4921 ITGB2	ENST00000397850	p.H371Y	c.1111	0.115615172	0	1
4921 ITGB2	ENST00000397850	p.R429W	c.1285	0.107172005	3.222	1
4921 ITGB2	ENST00000397850	p.A430V	c.1289	0.008443167	6.888	1
4922 CRADD	ENST00000332896	p.L58P	c.173	0.51696504	0	1
4922 CRADD	ENST00000332896	p.L9H	c.26	0.321699795	1.972	1
4922 CRADD	ENST00000332896	p.R13H	c.38	0.328865993	1.932	1
4923 SEMA7A	ENST00000261918	p.P201L	c.602	0.069204037	3.853	1
4923 SEMA7A	ENST00000261918	p.P222R	c.665	0.073826892	0	1
4923 SEMA7A	ENST00000261918	p.R261G	c.781	0.009766476	7.757	1
4924 ZCWPW2	ENST00000383768	p.N70Y	c.208	0.038956287	4.682	1
4924 ZCWPW2	ENST00000383768	p.W30C	c.90	0.038956287	0	1
4925 PDK4	ENST00000005178	p.E71K	c.211	0.56134612	2.418	1
4925 PDK4	ENST00000005178	p.R161Q	c.482	2.187115373	0	3
4926 MMP13	ENST00000260302	p.A384G	c.1151	0.169810786	0	1
4926 MMP13	ENST00000260302	p.D432Y	c.1294	0.169810786	2.558	1

4927 MAOB	ENST00000378069	p.F402S	c.1205	0.012225184	0	1
4927 MAOB	ENST00000378069	p.P266L	c.797	0.012225184	6.354	1
4928 IQSEC1	ENST00000429247	p.D455H	c.1363	0.001755381	0	1
4928 IQSEC1	ENST00000429247	p.R496H	c.1487	0.001755381	9.154	1
4929 RNASE2	ENST00000304625	p.Y134F	c.401	0.173860246	0	1
4929 RNASE2	ENST00000304625	p.I160M	c.480	0.173860246	2.524	1
4930 GART	ENST00000381831	p.R424C	c.1270	0.042955897	0	1
4930 GART	ENST00000381831	p.Q241R	c.722	0.042955897	4.541	1
4931 ADAM22	ENST00000315984	p.L370P	c.1109	0.004521446	0	1
4931 ADAM22	ENST00000315984	p.S268F	c.803	0.004521446	7.789	1
4932 IDH2	ENST00000330062	p.R140W	c.418	16.22359008	0	1
4932 IDH2	ENST00000330062	p.R140L	c.419	16.22359008	0	1
4932 IDH2	ENST00000330062	p.R140Q	c.419	16.22359008	0	15
4932 IDH2	ENST00000330062	p.R172K	c.515	9.380103138	5.483	7
4932 IDH2	ENST00000330062	p.R172M	c.515	9.380103138	5.483	1
4932 IDH2	ENST00000330062	p.R172S	c.516	9.380103138	5.483	2
4933 CP	ENST00000264613	p.L805Q	c.2414	0.022908074	5.448	1
4933 CP	ENST00000264613	p.Q970H	c.2910	0.022908074	0	1
4934 SGPL1	ENST00000373202	p.Y416N	c.1246	0.008292369	0	1
4934 SGPL1	ENST00000373202	p.V324A	c.971	0.008292369	6.914	1
4935 STAT1	ENST00000409465	p.H215Y	c.643	0.004587742	0	1
4935 STAT1	ENST00000409465	p.L280M	c.838	0.004587742	7.768	1
4936 PRDM9	ENST00000296682	p.Q255H	c.765	0.003786288	8.045	1
4936 PRDM9	ENST00000296682	p.R323W	c.966_967	0.003786288	0	1
4937 VCL	ENST00000211998	p.S795F	c.2384	0.009374776	0	1
4937 VCL	ENST00000211998	p.Y822C	c.2465	0.009374776	6.737	1
4938 CALCRL	ENST00000392370	p.V78A	c.233	0.010635267	0	1
4938 CALCRL	ENST00000392370	p.D106G	c.317	0.010635267	6.555	1
4939 ALDH4A1	ENST00000290597	p.R540C	c.1618	0.00666121	7.23	1
4939 ALDH4A1	ENST00000290597	p.V204M	c.610	0.143827702	0	1
4939 ALDH4A1	ENST00000290597	p.V229M	c.685	0.137166492	2.866	1
4940 PDE1B	ENST00000243052	p.P200Q	c.599_600	0.059622472	0	1
4940 PDE1B	ENST00000243052	p.N314Y	c.940	0.059622472	4.068	1
4941 NPM2	ENST00000289820	p.L106R	c.317	0.13499707	0	1
4941 NPM2	ENST00000289820	p.R28W	c.82	0.13499707	2.889	1
4942 NTRK1	ENST00000524377	p.R682H	c.2045	0.022158438	5.496	1
4942 NTRK1	ENST00000524377	p.I699V	c.2095	0.010230355	6.611	1
4942 NTRK1	ENST00000524377	p.D738N	c.2212	0.032388793	0	1
4943 RAE1	ENST00000527947	p.T103M	c.308	0.017886315	6.805	1
4943 RAE1	ENST00000527947	p.A124T	c.370	1.008943158	0	2
4944 NRP1	ENST00000374867	p.R402Q	c.1205	0.098960733	3.337	1
4944 NRP1	ENST00000374867	p.G331S	c.991_990	0.098960733	0	1
4945 LAMP3	ENST00000265598	p.D357N	c.1069	1.015920175	0	2
4945 LAMP3	ENST00000265598	p.K224N	c.672	0.03184035	5.973	1
4946 RPS21	ENST00000370592	p.K41T	c.122	0.003393524	0	1
4947 TGM3	ENST00000381458	p.A391V	c.1172	0.013021144	6.263	1
4947 TGM3	ENST00000381458	p.L460F	c.1378	0.013021144	0	1
4948 SDR39U1	ENST00000399395	p.A167V	c.500	0.013859317	0	1
4948 SDR39U1	ENST00000399395	p.R255Q	c.764	0.013859317	6.173	1

4949	EPRS	ENST00000366923	p.G1239A	c.3716	0.016265962	5.942	1
4949	EPRS	ENST00000366923	p.R1278L	c.3833	0.016265962	0	1
4950	KHK	ENST00000260599	p.H137Q	c.411	0.022813	5.454	1
4950	KHK	ENST00000260599	p.R167W	c.499	0.022813	0	1
4951	F11	ENST00000403665	p.E305K	c.913	0.075362989	4.73	1
4951	F11	ENST00000403665	p.R326H	c.977	1.037681495	0	2
4952	PABPC1	ENST00000318607	p.R94H	c.281	0.081503171	4.617	1
4952	PABPC1	ENST00000318607	p.A181T	c.541	1.040751585	0	2
4953	ARR3	ENST00000307959	p.L44I	c.130	0.021050525	5.57	1
4953	ARR3	ENST00000307959	p.A148D	c.443	0.021050525	0	1
4954	DCUN1D1	ENST00000292782	p.S101R	c.303	0.009611651	6.701	1
4954	DCUN1D1	ENST00000292782	p.P142H	c.425	0.009611651	0	1
4955	KDM1A	ENST00000542151	p.W670R	c.2008	0.109651694	3.189	1
4955	KDM1A	ENST00000542151	p.I804V	c.2410	0.109651694	0	1
4956	GGA2	ENST00000309859	p.W65C	c.195	0.12410922	0	1
4956	GGA2	ENST00000309859	p.R105C	c.313	0.069671548	3.925	1
4956	GGA2	ENST00000309859	p.E109K	c.325	0.062110638	4.101	1
4957	SSH2	ENST00000540801	p.M421I	c.1263	0.005444442	0	1
4957	SSH2	ENST00000540801	p.T456I	c.1367	0.005444442	7.521	1
4958	MTMR2	ENST00000352297	p.R387Q	c.1160	0.010082519	0	1
4958	MTMR2	ENST00000352297	p.R194H	c.581	0.010082519	6.632	1
4959	SYK	ENST00000375754	p.E362K	c.1083_1084	0.024895003	5.328	1
4959	SYK	ENST00000375754	p.G437E	c.1310	0.024895003	0	1
4960	IL3	ENST00000296870	p.L72F	c.214	0.25348987	0	1
4960	IL3	ENST00000296870	p.T112M	c.335	0.25348987	1.98	1
4961	PKLR	ENST00000342741	p.Q353H	c.1059	0.007774685	7.007	1
4961	PKLR	ENST00000342741	p.T384M	c.1151	0.06886907	3.86	1
4961	PKLR	ENST00000342741	p.L76K	c.227_226	0.076643755	0	1
4962	CTSK	ENST00000271651	p.Y181H	c.541	0.061639544	0	1
4962	CTSK	ENST00000271651	p.E226Q	c.676	0.061639544	4.02	1
4963	PFKM	ENST00000340802	p.L459P	c.1376	0.022550051	0	1
4963	PFKM	ENST00000340802	p.V527A	c.1580	0.010145614	6.623	1
4963	PFKM	ENST00000340802	p.K749T	c.2246	0.012404436	6.333	1
4964	S100B	ENST00000291700	p.I37M	c.111	0.243332344	2.039	1
4964	S100B	ENST00000291700	p.F77S	c.230	0.243332344	0	1
4965	TREML1	ENST00000426005	p.E101K	c.301	0.069108166	3.855	1
4965	TREML1	ENST00000426005	p.P23L	c.68	0.069108166	0	1
4966	DOCK2	ENST00000256935	p.R1446Q	c.4337	0.027603595	0	1
4966	DOCK2	ENST00000256935	p.Q1489H	c.4467	0.027603595	5.179	1
4967	RORC	ENST00000392697	p.R428C	c.1282	0.13887491	0	1
4967	RORC	ENST00000392697	p.S452N	c.1355	0.039013426	4.822	1
4967	RORC	ENST00000392697	p.F455L	c.1365	0.107181182	3.272	1
4968	MSRB1	ENST00000399753	p.P44S	c.130	0.075362989	3.73	1
4968	MSRB1	ENST00000399753	p.Q220K	c.658	0.075362989	0	1
4969	GAD2	ENST00000259271	p.D134V	c.401	0.025683756	0	1
4969	GAD2	ENST00000259271	p.A170E	c.509	0.025683756	5.283	1
4970	GALNS	ENST00000268695	p.H443Y	c.1327	0.008037709	0	1
4970	GALNS	ENST00000268695	p.S53F	c.158	0.008037709	6.959	1
4971	APOH	ENST00000205948	p.P85S	c.253	0.059416194	0	1

4971 APOH	ENST00000205948	p.G128E	c.383	0.059416194	4.073	1
4972 APPL2	ENST00000551662	p.V25M	c.73	0.018123432	5.786	1
4972 APPL2	ENST00000551662	p.V323M	c.967	0.018123432	0	1
4973 SRC	ENST00000445403	p.G347E	c.1040	0.064973715	0	1
4973 SRC	ENST00000445403	p.R391C	c.1171	0.064973715	3.944	1
4974 PLK1	ENST00000300093	p.A520T	c.1558	0.243792182	4.598	1
4974 PLK1	ENST00000300093	p.Y582C	c.1745	0.17452172	7.231	1
4974 PLK1	ENST00000300093	p.M586V	c.1756	1.04794842	0	2
4975 FN1	ENST00000354785	p.C518Y	c.1553	0.012762015	0	1
4975 FN1	ENST00000354785	p.R550L	c.1649	0.012762015	6.292	1
4976 IL1A	ENST00000263339	p.M127I	c.381	0.028855697	0	1
4976 IL1A	ENST00000263339	p.G169C	c.505	0.028855697	5.115	1
4977 ETV6	ENST00000396373	p.L79S	c.236	0.086629368	3.529	1
4977 ETV6	ENST00000396373	p.S109A	c.325	0.086629368	0	1
4978 KDM3B	ENST00000314358	p.V1417L	c.4249	0.156764052	7.665	1
4978 KDM3B	ENST00000314358	p.S1418L	c.4253	1.038466639	0	2
4978 KDM3B	ENST00000314358	p.A1680V	c.5039	0.213988309	4.898	1
4979 GUCY1A3	ENST00000296518	p.T621S	c.1861	0.014348065	0	1
4979 GUCY1A3	ENST00000296518	p.G652E	c.1955	0.014348065	6.123	1
4980 TLR8	ENST00000311912	p.N658T	c.1973	0.013396501	6.222	1
4980 TLR8	ENST00000311912	p.A682T	c.2044	0.064257114	3.96	1
4980 TLR8	ENST00000311912	p.R707H	c.2120	0.077653615	0	1
4981 SERPINA12	ENST00000556881	p.G250D	c.749	0.006215129	7.33	1
4981 SERPINA12	ENST00000556881	p.L274F	c.820	0.006215129	0	1
4982 NFASC	ENST00000367172	p.R77Q	c.230	0.101040109	0	1
4982 NFASC	ENST00000367172	p.E145K	c.433	0.101040109	3.307	1
4983 GTF2F1	ENST00000394456	p.E136K	c.406	0.132310549	2.918	1
4983 GTF2F1	ENST00000394456	p.R17L	c.50	0.132310549	0	1
4984 SYMPK	ENST00000245934	p.R148W	c.442	1.013878544	0	1
4984 SYMPK	ENST00000245934	p.R148L	c.443	1.013878544	0	1
4984 SYMPK	ENST00000245934	p.Y222C	c.665	0.027757087	6.171	1
4985 EPHX2	ENST00000521400	p.L417S	c.1250	0.010919117	0	1
4985 EPHX2	ENST00000521400	p.V498M	c.1492	0.010919117	6.517	1
4986 CHAT	ENST00000337653	p.R365W	c.1093	0.095061172	0	1
4986 CHAT	ENST00000337653	p.L282P	c.845	0.095061172	3.395	1
4987 SCO1	ENST00000255390	p.W159L	c.476	0.049309178	0	1
4987 SCO1	ENST00000255390	p.P198L	c.593	0.049309178	4.342	1
4988 ACAT1	ENST00000265838	p.G57C	c.169	0.007249012	0	1
4988 ACAT1	ENST00000265838	p.V240D	c.719	0.007249012	7.108	1
4989 POT1	ENST00000357628	p.I78T	c.233	0.099373156	0	1
4989 POT1	ENST00000357628	p.R137L	c.410	0.099373156	3.331	1
4990 CKB	ENST00000348956	p.D221Y	c.661	0.049755506	4.329	1
4990 CKB	ENST00000348956	p.E306K	c.916	0.049755506	0	1
4991 CUL4B	ENST00000404115	p.E738Q	c.2212	0.015441963	0	1
4991 CUL4B	ENST00000404115	p.D812H	c.2434	0.015441963	6.017	1
4992 LRRC4	ENST00000249363	p.A395T	c.1183	0.023633875	5.403	1
4992 LRRC4	ENST00000249363	p.G264W	c.790	0.028124089	0	1
4992 LRRC4	ENST00000249363	p.L285I	c.853	0.004490214	7.799	1
4993 ITGA5	ENST00000293379	p.G413E	c.1238	0.071992978	0	1

4993	ITGA5	ENST00000293379	p.G457V	c.1370	0.071992978	3.796	1
4994	NOTCH1	ENST00000277541	p.C461Y	c.1382	0.056289124	0	1
4994	NOTCH1	ENST00000277541	p.G484V	c.1451	0.056289124	4.151	1
4995	CTSE	ENST00000361052	p.R393C	c.1177	0.025260027	5.307	1
4995	CTSE	ENST00000361052	p.F246L	c.738	0.025260027	0	1
4996	TGFBR2	ENST00000359013	p.K151T	c.452	0.013331658	6.229	1
4996	TGFBR2	ENST00000359013	p.F174L	c.522	0.013331658	0	1
4997	PRPF8	ENST00000572621	p.A1847T	c.5539	1.031119496	6.591	2
4997	PRPF8	ENST00000572621	p.H1875R	c.5624	2.020746331	0	1
4997	PRPF8	ENST00000572621	p.HL1875in_frame_delQ	c.5627_5625	2.020746331	0	1
4997	PRPF8	ENST00000572621	p.HL1875in_frame_del	c.5629_5624	2.020746331	0	1
4998	RHOB	ENST00000272233	p.S88N	c.263	0.023617499	5.404	1
4998	RHOB	ENST00000272233	p.D13Y	c.37	0.023617499	0	1
4999	IL6ST	ENST00000381287	p.E138A	c.413	0.24570515	0	1
4999	IL6ST	ENST00000381287	p.N223S	c.668	0.24570515	2.025	1
5000	GGT1	ENST00000406383	p.T456S	c.1366	1.032735504	0	1
5000	GGT1	ENST00000406383	p.T456M	c.1367	1.032735504	0	1
5000	GGT1	ENST00000406383	p.G283R	c.847	0.065471008	4.933	1
5001	GNB1	ENST00000378609	p.D205N	c.613	0.031774209	4.976	1
5001	GNB1	ENST00000378609	p.D228N	c.682	0.031774209	0	1
5002	SETD2	ENST00000409792	p.K1560R	c.4679	1.099995016	0	1
5002	SETD2	ENST00000409792	p.K1560N	c.4680	1.099995016	0	1
5002	SETD2	ENST00000409792	p.H1603R	c.4808	0.199990032	3.322	1
5003	C12orf5	ENST00000179259	p.V94A	c.281	0.026259805	5.251	1
5003	C12orf5	ENST00000179259	p.G122A	c.365	0.026259805	0	1
5004	PTPRS	ENST00000372412	p.D138G	c.413	0.134343647	0	1
5004	PTPRS	ENST00000372412	p.S159N	c.476	0.134343647	2.896	1
5005	DYNLRB1	ENST00000374846	p.R124C	c.370	0.06146888	0	1
5005	DYNLRB1	ENST00000374846	p.E148K	c.442	0.06146888	4.024	1
5006	ACO1	ENST00000379923	p.L633Q	c.1898	0.065289735	0	1
5006	ACO1	ENST00000379923	p.P111T	c.331	0.065289735	3.937	1
5007	EGFR	ENST00000275493	p.E160K	c.478	0.01551707	6.01	1
5007	EGFR	ENST00000275493	p.S198R	c.594	0.01551707	0	1
5008	PPM1A	ENST00000325642	p.D182G	c.545	0.042600081	0	1
5008	PPM1A	ENST00000325642	p.A269S	c.805	0.042600081	4.553	1
5009	TDP1	ENST00000393454	p.A568G	c.1703	0.008263679	0	1
5009	TDP1	ENST00000393454	p.N162Y	c.483_484	0.008263679	6.919	1
5010	HTRA1	ENST00000368984	p.G213R	c.637	0.020193013	5.63	1
5010	HTRA1	ENST00000368984	p.D257Y	c.769	0.020193013	0	1
5011	GALT	ENST00000378842	p.M341T	c.1022	0.008596708	0	1
5011	GALT	ENST00000378842	p.R201H	c.602	0.008596708	6.862	1
5012	FANCM	ENST00000267430	p.M2000I	c.6000	1.077696854	0	2
5012	FANCM	ENST00000267430	p.I2022M	c.6066	0.155393709	3.686	1
5013	CEACAM1	ENST00000161559	p.E71K	c.211	0.015071847	0	1
5013	CEACAM1	ENST00000161559	p.G136E	c.407	0.015071847	6.052	1
5014	ERBB3	ENST00000267101	p.S467F	c.1400	0.256316809	2.964	1
5014	ERBB3	ENST00000267101	p.R490H	c.1469	1.128158405	0	2
5015	FTO	ENST00000471389	p.K391Q	c.1171	0.059457392	0	1
5015	FTO	ENST00000471389	p.E129K	c.385	0.059457392	4.072	1

5016	TPSAB1	ENST00000461509	p.P151H	c.452	0.055475709	4.172	1
5016	TPSAB1	ENST00000461509	p.G159E	c.476	0.006862738	7.187	1
5016	TPSAB1	ENST00000461509	p.A246V	c.737	0.062338447	0	1
5017	AKR1C3	ENST00000380554	p.T82N	c.245	0.084202099	0	1
5017	AKR1C3	ENST00000380554	p.V111L	c.331	0.084202099	3.57	1
5018	PDXK	ENST00000291565	p.V229I	c.685	0.015931214	0	1
5018	PDXK	ENST00000291565	p.P286R	c.857	0.015931214	5.972	1
5019	POLR2H	ENST00000429568	p.L39V	c.115	0.176531801	2.502	1
5019	POLR2H	ENST00000429568	p.A146T	c.435_436	0.176531801	0	1
5020	ALB	ENST00000295897	p.L371R	c.1112	0.048900736	0	1
5020	ALB	ENST00000295897	p.A234D	c.701	0.048900736	4.354	1
5021	HDDC2	ENST00000398153	p.D62N	c.184	0.039118639	4.676	1
5021	HDDC2	ENST00000398153	p.F138Y	c.413	0.039118639	0	1
5022	ADAMTS5	ENST00000284987	p.P476L	c.1427	0.074842419	0	1
5022	ADAMTS5	ENST00000284987	p.A314P	c.940	0.074842419	3.74	1
5023	HSD17B4	ENST00000504811	p.D385Y	c.1153	0.052192995	4.26	1
5023	HSD17B4	ENST00000504811	p.Q571R	c.1712	0.052192995	0	1
5024	MTOR	ENST00000361445	p.I2333M	c.6999	0.034148417	6.457	1
5024	MTOR	ENST00000361445	p.I2500F	c.7498	2.011382806	0	1
5024	MTOR	ENST00000361445	p.I2500M	c.7500	2.011382806	0	2
5025	NAALAD2	ENST00000534061	p.E135Q	c.403	0.023486898	0	1
5025	NAALAD2	ENST00000534061	p.A242E	c.725	0.023486898	5.412	1
5026	VTA1	ENST00000367630	p.C38G	c.112	0.196963472	2.344	1
5026	VTA1	ENST00000367630	p.V127F	c.379	0.196963472	0	1
5027	TGFBR1	ENST00000552516	p.R259L	c.776	0.008212288	0	1
5027	TGFBR1	ENST00000552516	p.I324V	c.970	0.008212288	6.928	1
5028	MTMR2	ENST00000352297	p.L361F	c.1081	0.012191336	6.358	1
5028	MTMR2	ENST00000352297	p.V491I	c.1471	0.012191336	0	1
5029	BRD1	ENST00000404034	p.M362I	c.1086	0.260362765	0	1
5029	BRD1	ENST00000404034	p.A383T	c.1147	0.256292024	1.972	1
5029	BRD1	ENST00000404034	p.T389M	c.1166	0.006855947	7.516	1
5030	MDM2	ENST00000462284	p.R422I	c.1265_1266	0.021123607	0	1
5030	MDM2	ENST00000462284	p.I446V	c.1336	0.021123607	5.565	1
5031	MTR	ENST00000366577	p.P953L	c.2858	0.01053256	0	1
5031	MTR	ENST00000366577	p.D1095N	c.3283	0.01053256	6.569	1
5032	PITRM1	ENST00000380989	p.H511Y	c.1531	0.009813612	0	1
5032	PITRM1	ENST00000380989	p.V864L	c.2590	0.009813612	6.671	1
5033	AURKB	ENST00000316199	p.I129T	c.386	0.042276507	4.564	1
5033	AURKB	ENST00000316199	p.R249H	c.746	0.042276507	0	1
5034	EPHX2	ENST00000521400	p.R113S	c.339	0.018274807	0	1
5034	EPHX2	ENST00000521400	p.F149S	c.446	0.018274807	5.774	1
5035	KIT	ENST00000288135	p.A219V	c.656	0.062847536	0	1
5035	KIT	ENST00000288135	p.T302I	c.905	0.062847536	3.992	1
5036	EPHA3	ENST00000336596	p.V609A	c.1826	0.161320311	3.632	1
5036	EPHA3	ENST00000336596	p.L668M	c.2002	1.080660156	0	1
5036	EPHA3	ENST00000336596	p.L668Q	c.2003	1.080660156	0	1
5037	GRM7	ENST00000467425	p.T223I	c.668	0.02335702	5.42	1
5037	GRM7	ENST00000467425	p.R255S	c.765	0.02335702	0	1
5038	GRM7	ENST00000467425	p.V343M	c.1027	0.061213769	4.03	1

5038 GRM7	ENST00000467425	p.Q409K	c.1225	0.072549333	0	1
5038 GRM7	ENST00000467425	p.G459C	c.1375	0.011335564	6.463	1
5039 ARHGDI	ENST00000583868	p.S124F	c.371	0.049446081	4.338	1
5039 ARHGDI	ENST00000583868	p.T148in_frame_del	c.443_441	0.049446081	0	1
5040 SI	ENST00000264382	p.T211I	c.632	0.02910592	5.183	1
5040 SI	ENST00000264382	p.R232H	c.695	0.084879661	0	1
5040 SI	ENST00000264382	p.I311V	c.931	0.058931244	4.124	1
5041 SKP2	ENST00000274255	p.H199N	c.595	0.147265435	9.489	1
5041 SKP2	ENST00000274255	p.G200C	c.598	2.011117218	0	1
5041 SKP2	ENST00000274255	p.G200D	c.599	2.011117218	0	2
5041 SKP2	ENST00000274255	p.T225I	c.674	0.17226726	6.684	1
5042 CFH	ENST00000367429	p.D1119N	c.3355	0.013897797	6.169	1
5042 CFH	ENST00000367429	p.P1161S	c.3481	0.013897797	0	1
5043 LYPLAL1	ENST00000366928	p.R117M	c.350	0.129767409	2.946	1
5043 LYPLAL1	ENST00000366928	p.S21I	c.62	0.129767409	0	1
5044 NR1I2	ENST00000337940	p.L387I	c.1159	0.010373165	0	1
5044 NR1I2	ENST00000337940	p.G317R	c.949	0.010373165	6.591	1
5045 ICAM2	ENST00000579687	p.L142M	c.424	0.160171711	0	1
5045 ICAM2	ENST00000579687	p.P166T	c.496	0.12397297	3.07	1
5045 ICAM2	ENST00000579687	p.P168L	c.503	0.045985182	4.605	1
5046 PNLIP	ENST00000369221	p.T87A	c.259	1.055283777	0	1
5046 PNLIP	ENST00000369221	p.T87I	c.260	1.055283777	0	1
5046 PNLIP	ENST00000369221	p.A328T	c.982	0.110567554	4.177	1
5047 PDGFRB	ENST00000261799	p.A719V	c.2156	0.021065121	5.569	1
5047 PDGFRB	ENST00000261799	p.Y778C	c.2333	0.021065121	0	1
5048 PPP2R1A	ENST00000322088	p.M291K	c.872	0.117603263	0	1
5048 PPP2R1A	ENST00000322088	p.C329F	c.986	0.117603263	3.088	1
5049 AKR1C3	ENST00000380554	p.R91Q	c.272	0.018440224	5.761	1
5049 AKR1C3	ENST00000380554	p.A150V	c.449	0.018440224	0	1
5050 TFRC	ENST00000360110	p.L381M	c.1141	0.01167851	0	1
5050 TFRC	ENST00000360110	p.P308L	c.923	0.01167851	6.42	1
5051 ZAP70	ENST00000264972	p.V366M	c.1096	0.084260483	0	1
5051 ZAP70	ENST00000264972	p.V413I	c.1237	0.084260483	3.569	1
5052 ASS1	ENST00000372394	p.Q125R	c.374	0.112578247	0	1
5052 ASS1	ENST00000372394	p.R146K	c.437	0.112578247	3.151	1
5053 CYP3A4	ENST00000336411	p.P368S	c.1102	0.016187231	5.949	1
5053 CYP3A4	ENST00000336411	p.R403H	c.1208	0.016187231	0	1
5054 MME	ENST00000360490	p.Q561H	c.1683	0.044842173	0	1
5054 MME	ENST00000360490	p.L674V	c.2020	0.044842173	4.479	1
5055 TP73	ENST00000378295	p.L148F	c.444	0.007193951	0	1
5055 TP73	ENST00000378295	p.S289F	c.866	0.007193951	7.119	1
5056 TRIM33	ENST00000358465	p.R968H	c.2903	0.018879966	0	1
5056 TRIM33	ENST00000358465	p.E1079D	c.3237	0.018879966	5.727	1
5057 HMBOX1	ENST00000524238	p.C278Y	c.833	0.010194961	0	1
5057 HMBOX1	ENST00000524238	p.A303V	c.908	0.010194961	6.616	1
5058 TUBG1	ENST00000251413	p.R372Q	c.1115	0.027374947	0	1
5058 TUBG1	ENST00000251413	p.R296Q	c.887	0.027374947	5.191	1
5059 OPRK1	ENST00000265572	p.H162Y	c.484	0.299992846	2.737	1
5059 OPRK1	ENST00000265572	p.R252H	c.755	1.149996423	0	2

5060 CFH	ENST00000367429	p.E570K	c.1708	0.050555084	0	1
5060 CFH	ENST00000367429	p.G615R	c.1843	0.050555084	4.306	1
5061 SAP18	ENST00000382533	p.G103D	c.308	0.164253953	2.606	1
5061 SAP18	ENST00000382533	p.S130Y	c.389	0.164253953	0	1
5062 RYR2	ENST00000360064	p.S451R	c.1351	0.024245806	5.469	1
5062 RYR2	ENST00000360064	p.L454M	c.1360	0.077424583	3.758	1
5062 RYR2	ENST00000360064	p.Q455H	c.1365	0.026753641	5.327	1
5062 RYR2	ENST00000360064	p.S530F	c.1589	0.12140374	0	1
5063 ADARB1	ENST00000496664	p.R514C	c.1540	0.006447699	0	1
5063 ADARB1	ENST00000496664	p.S685F	c.2054	0.006447699	7.277	1
5064 ARHGEF1	ENST00000599846	p.R191Q	c.572	0.020531744	0	1
5064 ARHGEF1	ENST00000599846	p.R232Q	c.695	0.020531744	5.606	1
5065 CYP1A2	ENST00000343932	p.M448I	c.1344	0.051617354	0	1
5065 CYP1A2	ENST00000343932	p.A97T	c.289	0.051617354	4.276	1
5066 CAMK1D	ENST00000378847	p.Q308E	c.922	0.01594226	6.971	1
5066 CAMK1D	ENST00000378847	p.G32L	c.94_95	1.00797113	0	1
5066 CAMK1D	ENST00000378847	p.G32E	c.95	1.00797113	0	1
5067 PDCD4	ENST00000280154	p.A347S	c.1039	0.006189334	7.336	1
5067 PDCD4	ENST00000280154	p.R256S	c.768	0.013210859	0	1
5067 PDCD4	ENST00000280154	p.Q290H	c.870	0.007021524	7.154	1
5069 ROBO2	ENST00000332191	p.A435V	c.1304	0.128781744	0	1
5069 ROBO2	ENST00000332191	p.L473P	c.1418	0.128781744	2.957	1
5070 AGO2	ENST00000220592	p.P590L	c.1770_1769	0.015909144	5.974	1
5070 AGO2	ENST00000220592	p.T657M	c.1970	0.015909144	0	1
5071 ASS1	ENST00000372394	p.P198S	c.592	0.084260483	0	1
5071 ASS1	ENST00000372394	p.R279P	c.836	0.084260483	3.569	1
5073 ATIC	ENST00000236959	p.R379Q	c.1136	2.007976657	0	3
5073 ATIC	ENST00000236959	p.Q218K	c.652	0.023929972	6.97	1
5074 HPGD	ENST00000296522	p.A166V	c.497	0.100133735	0	1
5074 HPGD	ENST00000296522	p.G240C	c.718	0.100133735	3.32	1
5075 IL23A	ENST00000228534	p.A47V	c.140	0.025541729	0	1
5075 IL23A	ENST00000228534	p.S119N	c.356	0.025541729	5.291	1
5077 TAF1L	ENST00000242310	p.D1522Y	c.4564	0.059829466	4.063	1
5077 TAF1L	ENST00000242310	p.D1636N	c.4906	0.059829466	0	1
5078 ITGAV	ENST00000261023	p.M430I	c.1290	0.11931687	3.203	1
5078 ITGAV	ENST00000261023	p.Y48N	c.142	0.207347937	0	1
5078 ITGAV	ENST00000261023	p.P71S	c.211	0.109479261	3.34	1
5079 SERPINA3	ENST00000467132	p.D342G	c.1025	0.154856087	0	1
5079 SERPINA3	ENST00000467132	p.H92R	c.275	0.154856087	2.691	1
5080 P2RY1	ENST00000305097	p.M279I	c.837	0.067498535	0	1
5080 P2RY1	ENST00000305097	p.T305R	c.914	0.067498535	3.889	1
5081 BRD3	ENST00000303407	p.R34H	c.101	0.173258736	2.529	1
5081 BRD3	ENST00000303407	p.N93Y	c.277	0.173258736	0	1
5082 DCC	ENST00000442544	p.V883I	c.2647	0.099787298	0	1
5082 DCC	ENST00000442544	p.F918L	c.2754	0.099787298	3.325	1
5083 CMTR1	ENST00000373451	p.R532Q	c.1595	0.026332713	0	1
5083 CMTR1	ENST00000373451	p.R228G	c.682	0.026332713	5.247	1
5084 CCKAR	ENST00000295589	p.S36F	c.107	0.098413497	3.345	1
5084 CCKAR	ENST00000295589	p.V9L	c.25	0.098413497	0	1

5085 RACGAP1	ENST00000547905	p.H368L	c.1103	0.076893209	3.701	1
5085 RACGAP1	ENST00000547905	p.L409V	c.1225	0.076893209	0	1
5086 NFKB1	ENST00000226574	p.A837V	c.2510	0.007520269	7.055	1
5086 NFKB1	ENST00000226574	p.M860I	c.2580	0.007520269	0	1
5087 FOLH1	ENST00000256999	p.V358M	c.1072	0.098073012	3.35	1
5087 FOLH1	ENST00000256999	p.F418I	c.1252	0.098073012	0	1
5088 TRNT1	ENST00000251607	p.L269S	c.806	0.001503979	0	1
5088 TRNT1	ENST00000251607	p.D304N	c.910	0.001503979	9.377	1
5089 C3	ENST00000245907	p.R710G	c.2128	1.0217476	0	1
5089 C3	ENST00000245907	p.R710Q	c.2129	1.0217476	0	1
5089 C3	ENST00000245907	p.R1427K	c.4280	1.0217476	6.523	2
5090 SMTN	ENST00000358743	p.R857H	c.2570	0.142299254	0	1
5090 SMTN	ENST00000358743	p.V902E	c.2705	0.142299254	2.813	1
5091 HEXB	ENST00000261416	p.G418R	c.1252	0.079466201	3.672	1
5091 HEXB	ENST00000261416	p.P442S	c.1324	0.091349896	0	1
5091 HEXB	ENST00000261416	p.Q479R	c.1436	0.013907099	6.277	1
5092 PNMT	ENST00000269582	p.P42L	c.125	0.011686607	6.419	1
5092 PNMT	ENST00000269582	p.L262F	c.784	0.011686607	0	1
5093 NEDD4	ENST00000508342	p.K1000R	c.2999	0.115502822	3.114	1
5093 NEDD4	ENST00000508342	p.M1082T	c.3245	0.115502822	0	1
5094 HMGCS1	ENST00000325110	p.T452M	c.1355	0.03991293	5.647	1
5094 HMGCS1	ENST00000325110	p.S67A	c.199	1.019956465	0	1
5094 HMGCS1	ENST00000325110	p.S67T	c.199	1.019956465	0	1
5095 TNPO1	ENST00000337273	p.C285Y	c.854	0.007796271	7.003	1
5095 TNPO1	ENST00000337273	p.L308S	c.923	0.007796271	0	1
5096 IL7	ENST00000263851	p.E77K	c.229	0.288171587	0	1
5096 IL7	ENST00000263851	p.K136N	c.408	0.288171587	1.795	1
5097 TEK	ENST00000380036	p.L819P	c.2456	0.018879966	6.727	1
5097 TEK	ENST00000380036	p.R842C	c.2524	1.009439983	0	2
5098 ASH2L	ENST00000343823	p.R417W	c.1249	1.016288528	0	2
5098 ASH2L	ENST00000343823	p.P493H	c.1478	0.032577055	5.94	1
5100 UPF1	ENST00000599848	p.V134M	c.400	0.011414409	0	1
5100 UPF1	ENST00000599848	p.P246L	c.737	0.011414409	6.453	1
5101 PTPRS	ENST00000372412	p.R1493Q	c.4478	0.12771501	0	1
5101 PTPRS	ENST00000372412	p.T1554M	c.4661	0.12771501	2.969	1
5102 EPHA5	ENST00000273854	p.R135W	c.403	0.041463911	4.592	1
5102 EPHA5	ENST00000273854	p.R191S	c.571	0.041463911	0	1
5104 DICER1	ENST00000343455	p.E1705K	c.5113	2.088554631	0	1
5104 DICER1	ENST00000343455	p.E1705Q	c.5113	2.088554631	0	1
5104 DICER1	ENST00000343455	p.E1705A	c.5114	2.088554631	0	1
5104 DICER1	ENST00000343455	p.D1709N	c.5125	1.078102236	7.653	2
5104 DICER1	ENST00000343455	p.M1821I	c.5463	0.362247442	3.669	1
5105 STARD13	ENST00000336934	p.P963H	c.2888	0.01127288	0	1
5105 STARD13	ENST00000336934	p.T1020A	c.3058	0.01127288	6.471	1
5106 UCHL1	ENST00000284440	p.E74K	c.220	0.15442733	0	1
5106 UCHL1	ENST00000284440	p.N184S	c.551	0.15442733	2.695	1
5107 ECE1	ENST00000374893	p.F405V	c.1213	0.011390698	0	1
5107 ECE1	ENST00000374893	p.E532K	c.1594	0.011390698	6.456	1
5108 CAPG	ENST00000263867	p.R153W	c.457	0.014248956	0	1

5108	CAPG	ENST00000263867	p.D268N	c.802	0.014248956	6.133	1
5109	PITRM1	ENST00000380989	p.V110I	c.328	0.063990431	0	1
5109	PITRM1	ENST00000380989	p.H254Y	c.760	0.063990431	3.966	1
5110	POLK	ENST00000241436	p.L383F	c.1147	0.00709491	7.139	1
5110	POLK	ENST00000241436	p.A82S	c.244	0.00709491	0	1
5111	ALDH5A1	ENST00000348925	p.M377I	c.1131	0.026042288	0	1
5111	ALDH5A1	ENST00000348925	p.P455S	c.1363	0.026042288	5.263	1
5112	ENPEP	ENST00000265162	p.R887G	c.2659	1.080772052	0	1
5112	ENPEP	ENST00000265162	p.R887I	c.2660	1.080772052	0	1
5112	ENPEP	ENST00000265162	p.P224L	c.671	0.161544104	3.63	1
5113	GALK2	ENST00000560031	p.T400A	c.1198	0.087656203	0	1
5113	GALK2	ENST00000560031	p.E49K	c.145	0.087656203	3.512	1
5114	LYN	ENST00000519728	p.D66Y	c.196	0.21538654	2.215	1
5114	LYN	ENST00000519728	p.M90I	c.270	0.21538654	0	1
5115	PON1	ENST00000542556	p.E92K	c.274	0.177759676	2.492	1
5116	HEBP2	ENST00000607197	p.D170N	c.508	0.037655385	4.731	1
5116	HEBP2	ENST00000607197	p.Q196P	c.587	0.037655385	0	1
5117	DPP4	ENST00000360534	p.A306T	c.916	0.026979361	0	1
5117	DPP4	ENST00000360534	p.I327T	c.980	0.026979361	5.212	1
5118	DCTD	ENST00000357067	p.D43G	c.128	0.094041484	0	1
5118	DCTD	ENST00000357067	p.W78C	c.234	0.089498046	3.482	1
5118	DCTD	ENST00000357067	p.D21N	c.61	0.004543438	7.782	1
5119	IL6R	ENST00000368485	p.P136L	c.407	0.020081349	6.638	1
5119	IL6R	ENST00000368485	p.V194I	c.580	1.010040675	0	2
5120	TP53BP2	ENST00000343537	p.C34Y	c.101	0.06421259	0	1
5120	TP53BP2	ENST00000343537	p.R67Q	c.200	0.06421259	3.961	1
5121	PREP	ENST00000369110	p.R245C	c.733	1.016288528	0	1
5121	PREP	ENST00000369110	p.R245H	c.734	1.016288528	0	1
5121	PREP	ENST00000369110	p.T298M	c.893	0.032577055	5.94	1
5122	RB1	ENST00000267163	p.A488V	c.1463	0.008644511	6.854	1
5122	RB1	ENST00000267163	p.L550I	c.1648	0.008644511	0	1
5123	GHR	ENST00000230882	p.Q83R	c.248	0.059005776	0	1
5123	GHR	ENST00000230882	p.G133S	c.397	0.059005776	4.083	1
5124	ITSN2	ENST00000355123	p.L759S	c.2276	0.468460723	2.094	1
5124	ITSN2	ENST00000355123	p.D787N	c.2359	1.234230362	0	1
5124	ITSN2	ENST00000355123	p.D787V	c.2360	1.234230362	0	1
5125	AGO1	ENST00000373204	p.R712H	c.2135	0.15346696	0	1
5125	AGO1	ENST00000373204	p.D216G	c.647	0.15346696	2.704	1
5126	ERBB2	ENST00000269571	p.V94I	c.280	0.011957006	6.386	1
5126	ERBB2	ENST00000269571	p.R138W	c.412	0.011957006	0	1
5127	SKA2	ENST00000330137	p.S76T	c.227	0.002773647	8.494	1
5127	SKA2	ENST00000330137	p.R77H	c.230	0.013415085	6.22	1
5127	SKA2	ENST00000330137	p.K115R	c.344	0.016188732	0	1
5128	GMPR	ENST00000259727	p.E136V	c.407	0.043980262	4.507	1
5128	GMPR	ENST00000259727	p.E167Q	c.499	0.043980262	0	1
5129	NUMBL	ENST00000598779	p.R53W	c.157	0.048260946	4.373	1
5129	NUMBL	ENST00000598779	p.R10L	c.29	0.048260946	0	1
5130	BIRC2	ENST00000227758	p.F335L	c.1005	1.230046913	0	2
5130	BIRC2	ENST00000227758	p.V298M	c.892	0.460093825	2.12	1

5131 GSS	ENST00000216951	p.Q366H	c.1098	0.025453361	0	1
5131 GSS	ENST00000216951	p.A393T	c.1177	0.025453361	5.296	1
5132 AQP2	ENST00000199280	p.G100R	c.298	0.035018732	6.588	1
5132 AQP2	ENST00000199280	p.V194I	c.580	1.010394758	0	2
5133 FASLG	ENST00000367721	p.E161K	c.481	0.007259068	7.106	1
5133 FASLG	ENST00000367721	p.E163K	c.487	0.004534	7.785	1
5133 FASLG	ENST00000367721	p.T274A	c.820	0.011793067	0	1
5134 CRABP2	ENST00000368222	p.R12Q	c.35	0.115502822	3.114	1
5134 CRABP2	ENST00000368222	p.E119K	c.355	0.115502822	0	1
5135 CAMKMT	ENST00000378494	p.R211Q	c.632	0.07139664	0	1
5135 CAMKMT	ENST00000378494	p.Y239C	c.716	0.07139664	3.808	1
5136 NXT1	ENST00000254998	p.L92F	c.274	0.076680311	0	1
5136 NXT1	ENST00000254998	p.F113L	c.339	0.076680311	3.705	1
5137 CLEC4D	ENST00000299665	p.R137K	c.410	0.009752582	6.68	1
5137 CLEC4D	ENST00000299665	p.K191E	c.571	0.009752582	0	1
5138 RAB5A	ENST00000273047	p.S34L	c.101	0.011866185	6.397	1
5138 RAB5A	ENST00000273047	p.G78R	c.232	0.011866185	0	1
5139 P2RY12	ENST00000302632	p.G90R	c.268	0.042777619	4.547	1
5139 P2RY12	ENST00000302632	p.R168K	c.503	0.042777619	0	1
5140 FBP2	ENST00000375337	p.I139M	c.417	0.016333752	5.936	1
5140 FBP2	ENST00000375337	p.L176F	c.526	0.016333752	0	1
5141 NPR3	ENST00000265074	p.A426S	c.1276	0.029137078	6.101	1
5141 NPR3	ENST00000265074	p.D299N	c.895	1.014568539	0	1
5141 NPR3	ENST00000265074	p.D299Y	c.895	1.014568539	0	1
5142 VRK1	ENST00000216639	p.K356E	c.1066	1.869234689	0	1
5142 VRK1	ENST00000216639	p.K356N	c.1068	1.869234689	0	1
5142 VRK1	ENST00000216639	p.Y198C	c.593	0.017072701	8.681	1
5142 VRK1	ENST00000216639	p.R203W	c.607	1.545008427	2.148	1
5142 VRK1	ENST00000216639	p.R203Q	c.608	1.545008427	2.148	1
5142 VRK1	ENST00000216639	p.R219I	c.656	1.28608519	3.212	2
5142 VRK1	ENST00000216639	p.D222N	c.664	0.54485133	2.324	1
5143 VTA1	ENST00000367630	p.K62R	c.185	0.350624813	2.512	1
5143 VTA1	ENST00000367630	p.P8S	c.22	1.175312406	0	1
5143 VTA1	ENST00000367630	p.P8H	c.23	1.175312406	0	1
5144 PDIA5	ENST00000316218	p.V51A	c.152	0.093234002	3.423	1
5144 PDIA5	ENST00000316218	p.C81F	c.242	0.093234002	0	1
5145 ADAM8	ENST00000445355	p.H232L	c.695	0.066569263	3.909	1
5145 ADAM8	ENST00000445355	p.V326M	c.976	0.066569263	0	1
5146 ATXN3	ENST00000545170	p.T60M	c.179	0.091505356	3.45	1
5146 ATXN3	ENST00000545170	p.S96G	c.286	0.091505356	0	1
5147 CYP2A13	ENST00000330436	p.L395M	c.1183	1.006510572	0	2
5147 CYP2A13	ENST00000330436	p.H84Y	c.250	0.013021144	7.263	1
5148 CDK4	ENST00000257904	p.R139Q	c.416	0.010026765	6.64	1
5148 CDK4	ENST00000257904	p.Q168E	c.502	0.010026765	0	1
5149 KHK	ENST00000260599	p.L208F	c.624	0.190518104	3.392	1
5149 KHK	ENST00000260599	p.A232S	c.694	1.095259052	0	2
5150 IL10RA	ENST00000227752	p.H41Y	c.121	0.012886462	6.278	1
5150 IL10RA	ENST00000227752	p.V86M	c.256	0.012886462	0	1
5151 PKN2	ENST00000370521	p.E822G	c.2465	0.069108166	3.855	1

5151 PKN2	ENST00000370521	p.V845M	c.2533	0.069108166	0	1
5153 PRSS1	ENST00000486171	p.S67L	c.200	0.118311048	0	1
5153 PRSS1	ENST00000486171	p.P111S	c.331	0.026582665	5.363	1
5153 PRSS1	ENST00000486171	p.Q112K	c.334	0.096297085	3.411	1
5154 ASB9	ENST00000380488	p.K163E	c.487	0.150935074	0	1
5154 ASB9	ENST00000380488	p.G198D	c.593	0.150935074	2.728	1
5155 YWHAQ	ENST00000238081	p.I166M	c.498	0.025970183	0	1
5155 YWHAQ	ENST00000238081	p.I217S	c.650	0.025970183	5.267	1
5156 RAP1B	ENST00000250559	p.M72V	c.214	0.013763584	0	1
5156 RAP1B	ENST00000250559	p.R102Q	c.305	0.013763584	6.183	1
5157 GSS	ENST00000216951	p.R252Q	c.755	0.093687475	3.416	1
5157 GSS	ENST00000216951	p.S289L	c.866	0.093687475	0	1
5158 IQGAP1	ENST00000268182	p.I1041L	c.3121	0.062025273	4.011	1
5158 IQGAP1	ENST00000268182	p.A1178V	c.3533	0.062025273	0	1
5159 L3MBTL1	ENST00000427442	p.K522N	c.1566	0.252088114	2.988	1
5159 L3MBTL1	ENST00000427442	p.A564T	c.1690	1.126044057	0	2
5160 COMP	ENST00000222271	p.R665Q	c.1994	0.012499377	6.322	1
5160 COMP	ENST00000222271	p.M717I	c.2151	0.012499377	0	1
5161 F5	ENST00000367796	p.S2091L	c.6272	1.14252067	0	2
5161 F5	ENST00000367796	p.K2093N	c.6279	0.101311448	6.563	1
5161 F5	ENST00000367796	p.K2120R	c.6359	0.344046967	2.922	1
5162 DLG2	ENST00000543673	p.L351P	c.1052	0.050032176	0	1
5162 DLG2	ENST00000543673	p.V296I	c.886	0.050032176	4.321	1
5164 PTK2B	ENST00000544172	p.R643W	c.1927	0.073099229	0	1
5164 PTK2B	ENST00000544172	p.Y664C	c.1991	0.073099229	3.774	1
5165 TBX5	ENST00000405440	p.M83L	c.247	0.026791112	9.454	1
5165 TBX5	ENST00000405440	p.L102I	c.304	0.088435374	0	1
5165 TBX5	ENST00000405440	p.F155L	c.465	0.083307658	4.153	1
5165 TBX5	ENST00000405440	p.V186M	c.556	0.032529631	5.021	1
5166 DARS2	ENST00000361951	p.L404I	c.1210	0.009881871	6.661	1
5166 DARS2	ENST00000361951	p.R428G	c.1282	0.009881871	0	1
5167 DCC	ENST00000442544	p.Y916H	c.2746	0.156041319	0	1
5167 DCC	ENST00000442544	p.T939M	c.2816	0.156041319	2.68	1
5168 LGALS8	ENST00000526589	p.V245I	c.733	0.167937928	2.574	1
5168 LGALS8	ENST00000526589	p.M311V	c.931	0.167937928	0	1
5169 RFC5	ENST00000454402	p.E143D	c.429	0.112344391	0	1
5169 RFC5	ENST00000454402	p.Q166H	c.498	0.112344391	3.154	1
5170 HPN	ENST00000392226	p.S362N	c.1085	0.189990607	2.396	1
5170 HPN	ENST00000392226	p.N323D	c.967	0.189990607	0	1
5171 MAPK9	ENST00000343111	p.A348V	c.1043	0.006070369	0	1
5171 MAPK9	ENST00000343111	p.N63K	c.189	0.006070369	7.364	1
5172 POR	ENST00000447222	p.A479V	c.1436	0.038287042	4.707	1
5173 MLST8	ENST00000564088	p.R36Q	c.107	0.073302184	3.77	1
5173 MLST8	ENST00000564088	p.N73T	c.218	0.073302184	0	1
5174 GM2A	ENST00000357164	p.V74I	c.220	0.077481731	0	1
5174 GM2A	ENST00000357164	p.P120S	c.358	0.077481731	3.69	1
5175 TOP1	ENST00000361337	p.K456N	c.1368	0.061767853	0	1
5175 TOP1	ENST00000361337	p.V588I	c.1762	0.061767853	4.017	1
5176 CTNNA1	ENST00000302763	p.G566R	c.1696	0.010474317	6.577	1

5176 CTNNA1	ENST00000302763	p.P855A	c.2563	0.010474317	0	1
5177 KDM6B	ENST00000254846	p.G1360C	c.4078	0.009705377	0	1
5177 KDM6B	ENST00000254846	p.V1508I	c.4522	0.009705377	6.687	1
5178 RAB43	ENST00000315150	p.R89H	c.266	0.011280697	6.47	1
5178 RAB43	ENST00000315150	p.G121C	c.361_360	0.011280697	0	1
5179 GAS6	ENST00000357389	p.L464M	c.1390	0.004337261	0	1
5179 GAS6	ENST00000357389	p.G496K	c.1487_1486	0.004337261	7.849	1
5180 BPHL	ENST00000380379	p.I238T	c.713	0.151249261	2.725	1
5180 BPHL	ENST00000380379	p.H265Y	c.793	0.151249261	0	1
5181 THRB	ENST00000280696	p.R353W	c.1057	1.022892201	0	1
5181 THRB	ENST00000280696	p.R353Q	c.1058	1.022892201	0	1
5181 THRB	ENST00000280696	p.Q267H	c.801	0.045784402	5.449	1
5182 SNX33	ENST00000308527	p.P229S	c.685	0.002355093	8.73	1
5182 SNX33	ENST00000308527	p.P256R	c.767	0.002355093	0	1
5183 PARP15	ENST00000464300	p.S439P	c.1315	0.020876157	5.582	1
5183 PARP15	ENST00000464300	p.P277S	c.829	0.020876157	0	1
5184 ANK1	ENST00000396942	p.R1139W	c.3415	1.008656503	0	1
5184 ANK1	ENST00000396942	p.R1139Q	c.3416	1.008656503	0	1
5184 ANK1	ENST00000396942	p.V1176I	c.3526	0.017313005	6.852	1
5185 STK3	ENST00000523601	p.E59D	c.177	0.007976657	0	1
5185 STK3	ENST00000523601	p.A82T	c.244	0.007976657	6.97	1
5186 VPS29	ENST00000546588	p.V183A	c.548	0.006977858	7.163	1
5186 VPS29	ENST00000546588	p.E207K	c.619	0.006977858	0	1
5187 B3GAT3	ENST00000265471	p.T198A	c.592	0.138120561	2.856	1
5187 B3GAT3	ENST00000265471	p.T309I	c.926	0.138120561	0	1
5188 UBA3	ENST00000361055	p.R37C	c.109	0.009752582	0	1
5188 UBA3	ENST00000361055	p.L63V	c.187	0.009752582	6.68	1
5189 FARSA	ENST00000588025	p.V396I	c.1186	0.002116652	0	1
5189 FARSA	ENST00000588025	p.I292T	c.875	0.002116652	8.884	1
5190 CRYBB2	ENST00000398215	p.V141M	c.421	0.036308825	4.838	1
5190 CRYBB2	ENST00000398215	p.S142L	c.425	0.039818429	4.7	1
5190 CRYBB2	ENST00000398215	p.D176N	c.526	0.073436922	0	1
5191 PTGR1	ENST00000309195	p.K231N	c.693	0.00647457	0	1
5191 PTGR1	ENST00000309195	p.R266C	c.796	0.00647457	7.271	1
5192 HGD	ENST00000283871	p.R336K	c.1007	0.125562599	0	1
5192 HGD	ENST00000283871	p.T369A	c.1105	0.049273188	4.454	1
5192 HGD	ENST00000283871	p.P370L	c.1109	0.083583786	3.645	1
5193 RBBP4	ENST00000373493	p.T37A	c.109	0.029666941	5.075	1
5193 RBBP4	ENST00000373493	p.V401A	c.1202	0.029666941	0	1
5194 PIR	ENST00000380421	p.K46E	c.136	0.103736823	0	1
5194 PIR	ENST00000380421	p.H112D	c.334	0.103736823	3.269	1
5195 PRPS1	ENST00000543248	p.W154L	c.461	0.053437636	4.226	1
5195 PRPS1	ENST00000543248	p.I247F	c.739	0.053437636	0	1
5196 EML1	ENST00000334192	p.D778N	c.2332	0.023633875	6.403	1
5196 EML1	ENST00000334192	p.D291N	c.871	0.017122059	6.868	1
5196 EML1	ENST00000334192	p.S314P	c.940	1.020377967	0	1
5196 EML1	ENST00000334192	p.S314L	c.941	1.020377967	0	1
5197 TBC1D1	ENST00000261439	p.G853V	c.2558	0.010308656	6.6	1
5197 TBC1D1	ENST00000261439	p.Y874C	c.2621	0.010308656	0	1

5198 ADCY10	ENST00000367851	p.I395V	c.1183	1.022561394	0	2
5198 ADCY10	ENST00000367851	p.Q283H	c.849	0.045122787	5.47	1
5199 EPHB1	ENST00000398015	p.M447I	c.1341	0.166200889	3.589	1
5199 EPHB1	ENST00000398015	p.R497W	c.1489	1.083100444	0	1
5199 EPHB1	ENST00000398015	p.R497Q	c.1490	1.083100444	0	1
5200 GBE1	ENST00000429644	p.F616S	c.1847	0.009929935	7.654	1
5200 GBE1	ENST00000429644	p.R679C	c.2035	1.004964968	0	1
5200 GBE1	ENST00000429644	p.R679H	c.2036	1.004964968	0	1
5201 ENO3	ENST00000518175	p.V344I	c.1030	0.028755864	0	1
5201 ENO3	ENST00000518175	p.P36A	c.106	0.028755864	5.12	1
5202 ITGA2	ENST00000296585	p.V176A	c.527	0.155936015	0	1
5202 ITGA2	ENST00000296585	p.G212V	c.635	0.133529542	3.306	1
5202 ITGA2	ENST00000296585	p.S240T	c.718	0.08724522	4.189	1
5203 ACVR2B	ENST00000352511	p.E111K	c.331	1.003980044	0	2
5203 ACVR2B	ENST00000352511	p.Y31F	c.92	0.007960087	7.973	1
5204 HIST1H2BA	ENST00000274764	p.S93F	c.278	0.013212067	7.242	1
5204 HIST1H2BA	ENST00000274764	p.TKAVTKYTS117in_frame_del	c.347_373	1.006606033	0	1
5204 HIST1H2BA	ENST00000274764	p.T117A	c.349	1.006606033	0	1
5205 CEACAM5	ENST00000221992	p.N410K	c.1230	0.016676958	0	1
5205 CEACAM5	ENST00000221992	p.S332A	c.994	0.016676958	5.906	1
5206 TSTA3	ENST00000425753	p.T115I	c.344	0.008999122	6.796	1
5206 TSTA3	ENST00000425753	p.S144W	c.431	0.008999122	0	1
5207 BPIFA1	ENST00000375413	p.G49E	c.146	0.002895443	8.432	1
5207 BPIFA1	ENST00000375413	p.E117K	c.349	0.002895443	0	1
5208 SUL1A2	ENST00000335715	p.P87S	c.259	0.025016088	0	1
5208 SUL1A2	ENST00000335715	p.R244C	c.730_729	0.025016088	5.321	1
5209 RYR2	ENST00000360064	p.S402N	c.1205	0.153999759	2.699	1
5209 RYR2	ENST00000360064	p.L235V	c.703	0.153999759	0	1
5210 ACTN4	ENST00000252699	p.R65W	c.193	0.136407985	2.874	1
5210 ACTN4	ENST00000252699	p.D236N	c.706	0.136407985	0	1
5211 ACVR2B	ENST00000352511	p.A34T	c.100	0.020432365	0	1
5211 ACVR2B	ENST00000352511	p.E71K	c.211	0.020432365	5.613	1
5212 FGFR1	ENST00000341462	p.A171S	c.511	0.031995216	4.966	1
5212 FGFR1	ENST00000341462	p.R251W	c.751	0.031995216	0	1
5213 XDH	ENST00000379416	p.P363L	c.1088	0.039584081	0	1
5213 XDH	ENST00000379416	p.F418L	c.1254	0.024688791	5.34	1
5213 XDH	ENST00000379416	p.G437S	c.1309	0.01489529	6.069	1
5214 EGFR	ENST00000275493	p.T363I	c.1088	0.014219357	0	1
5214 EGFR	ENST00000275493	p.G331R	c.991	0.014219357	6.136	1
5215 UBA3	ENST00000361055	p.C249Y	c.746	0.020617311	0	1
5215 UBA3	ENST00000361055	p.S290L	c.869	0.020617311	5.6	1
5216 ERAP2	ENST00000437043	p.S432L	c.1295	0.008716713	6.842	1
5216 ERAP2	ENST00000437043	p.F931L	c.2791	0.008716713	0	1
5217 LRP6	ENST00000261349	p.R341H	c.1022	0.022390026	5.481	1
5217 LRP6	ENST00000261349	p.T312A	c.934	0.022390026	0	1
5218 PLA2G4A	ENST00000367466	p.P686S	c.2056	0.013859317	0	1
5218 PLA2G4A	ENST00000367466	p.M256I	c.768	0.013859317	6.173	1
5219 PIK3CG	ENST00000496166	p.V223I	c.667	0.038206516	6.295	1
5219 PIK3CG	ENST00000496166	p.V274I	c.820	2.012735505	0	3

5220	KSR2	ENST00000339824	p.D660N	c.1978	0.005912566	0	1
5220	KSR2	ENST00000339824	p.R718L	c.2153	0.005912566	7.402	1
5221	MME	ENST00000360490	p.E233K	c.697	0.139951611	2.837	1
5221	MME	ENST00000360490	p.E280K	c.838	0.139951611	0	1
5222	PIK3C3	ENST00000262039	p.V726I	c.2176	0.020146117	0	1
5222	PIK3C3	ENST00000262039	p.G786V	c.2357	0.010216182	6.613	1
5222	PIK3C3	ENST00000262039	p.C802Y	c.2405	0.009929935	6.654	1
5223	CR2	ENST00000367057	p.G932R	c.2794	0.031995216	0	1
5223	CR2	ENST00000367057	p.C953Y	c.2858	0.031995216	4.966	1
5224	KLRG1	ENST00000266551	p.E93K	c.277	0.092718433	0	1
5224	KLRG1	ENST00000266551	p.P179S	c.535	0.092718433	3.431	1
5225	A2M	ENST00000318602	p.Q1051H	c.3153	0.064390872	0	1
5225	A2M	ENST00000318602	p.H1259R	c.3776	0.064390872	3.957	1
5226	HSD17B11	ENST00000358290	p.F56C	c.167	0.026042288	5.263	1
5226	HSD17B11	ENST00000358290	p.A85V	c.254	0.026042288	0	1
5227	HTRA2	ENST00000258080	p.D250N	c.748	0.025068161	0	1
5227	HTRA2	ENST00000258080	p.Q279E	c.835	0.025068161	5.318	1
5228	GCKR	ENST00000264717	p.E536K	c.1606	0.010237448	0	1
5228	GCKR	ENST00000264717	p.A574T	c.1720	0.010237448	6.61	1
5229	FLNB	ENST00000490882	p.A1059V	c.3176	0.044718016	0	1
5229	FLNB	ENST00000490882	p.D1089N	c.3265	0.044718016	4.483	1
5230	MARK3	ENST00000335102	p.K376Q	c.1126	0.049340909	6.663	1
5230	MARK3	ENST00000335102	p.E120K	c.358	4.009868182	0	5
5231	RARB	ENST00000404969	p.C105S	c.313	0.06643098	0	1
5231	RARB	ENST00000404969	p.Q141E	c.421	0.06643098	3.912	1
5232	MCTS1	ENST00000371315	p.T131A	c.391	0.005140057	7.604	1
5232	MCTS1	ENST00000371315	p.V133A	c.398	0.005786874	7.433	1
5232	MCTS1	ENST00000371315	p.G164D	c.491	0.010926931	0	1
5233	PTPRM	ENST00000400060	p.L501I	c.1501	0.029482445	6.084	1
5233	PTPRM	ENST00000400060	p.T562A	c.1684	1.014741223	0	1
5233	PTPRM	ENST00000400060	p.T562S	c.1684	1.014741223	0	1
5234	HECTD1	ENST00000399332	p.D1290H	c.3868	0.179617522	2.477	1
5234	HECTD1	ENST00000399332	p.K1333R	c.3998	0.179617522	0	1
5235	GLUL	ENST00000311223	p.R299C	c.895	0.007699604	0	1
5235	GLUL	ENST00000311223	p.A321T	c.961	0.007699604	7.021	1
5236	RGS16	ENST00000367558	p.A97T	c.289	0.002989252	8.386	1
5236	RGS16	ENST00000367558	p.A149S	c.445	0.002989252	0	1
5237	PNPT1	ENST00000447944	p.Y334S	c.1001	0.014397878	0	1
5237	PNPT1	ENST00000447944	p.S93F	c.278	0.014397878	6.118	1
5238	CYP1A1	ENST00000567032	p.G225K	c.674_673	1.002273294	0	1
5238	CYP1A1	ENST00000567032	p.G225L	c.674_673	1.002273294	0	1
5238	CYP1A1	ENST00000567032	p.S247P	c.739	0.004546588	8.781	1
5239	ENO2	ENST00000541477	p.K5Q	c.13	0.018866884	5.728	1
5239	ENO2	ENST00000541477	p.A74V	c.221	0.018866884	0	1
5240	PCSK9	ENST00000302118	p.G227D	c.680	0.010019817	0	1
5240	PCSK9	ENST00000302118	p.P288L	c.863_864	0.010019817	6.641	1
5241	CD180	ENST00000256447	p.N244T	c.731	0.014033318	6.155	1
5241	CD180	ENST00000256447	p.G270R	c.808	0.014033318	0	1
5242	RPS6KA1	ENST00000531382	p.R443H	c.1328	0.016333752	5.936	1

5242 RPS6KA1	ENST00000531382	p.R502W	c.1504	0.016333752	0	1
5243 GRM3	ENST00000361669	p.S175R	c.525	0.546547745	0	1
5243 GRM3	ENST00000361669	p.E219K	c.655	0.42796814	1.47	1
5243 GRM3	ENST00000361669	p.G223R	c.667	0.252551288	2.43	1
5244 TBC1D14	ENST00000448507	p.E450K	c.1348	0.056344161	4.178	1
5244 TBC1D14	ENST00000448507	p.I493V	c.1477	0.075132892	0	1
5244 TBC1D14	ENST00000448507	p.A570V	c.1709	0.020986111	5.652	1
5245 GRIK2	ENST00000421544	p.R748W	c.2242	1.011033238	0	1
5245 GRIK2	ENST00000421544	p.R748Q	c.2243	1.011033238	0	1
5245 GRIK2	ENST00000421544	p.K797R	c.2390	0.022066475	6.502	1
5246 CFP	ENST00000247153	p.R346H	c.1037	2.002496288	0	3
5246 CFP	ENST00000247153	p.R368Q	c.1103	0.007488863	8.646	1
5247 RNLS	ENST00000331772	p.RD138in_frame_delS	c.416_414	0.047994071	4.381	1
5247 RNLS	ENST00000331772	p.D172Y	c.514	0.047994071	0	1
5248 NR5A2	ENST00000367362	p.D525N	c.1573	0.025382887	5.3	1
5248 NR5A2	ENST00000367362	p.E329K	c.985	0.025382887	0	1
5249 SYK	ENST00000375754	p.T371M	c.1112	0.228299563	3.131	1
5249 SYK	ENST00000375754	p.D603N	c.1807	1.114149781	0	2
5250 GUCA1C	ENST00000261047	p.E39K	c.115	3.043767385	0	4
5250 GUCA1C	ENST00000261047	p.T63A	c.187	0.17506954	4.514	1
5251 DDX6	ENST00000264018	p.K367E	c.1099	0.024013675	5.38	1
5251 DDX6	ENST00000264018	p.L393M	c.1177	0.024013675	0	1
5252 CPA1	ENST00000011292	p.W173S	c.518	0.021762679	0	1
5252 CPA1	ENST00000011292	p.I215V	c.643	0.021762679	5.522	1
5253 PIGR	ENST00000356495	p.I352N	c.1055	0.00467441	7.741	1
5253 PIGR	ENST00000356495	p.V245I	c.733	0.00467441	0	1
5255 PRCP	ENST00000393399	p.D479H	c.1435	0.012081974	6.371	1
5255 PRCP	ENST00000393399	p.G125W	c.373	0.012081974	0	1
5256 RNF168	ENST00000318037	p.P38Q	c.113	0.097869287	0	1
5256 RNF168	ENST00000318037	p.R91G	c.271	0.097869287	3.353	1
5257 IL6R	ENST00000368485	p.R63K	c.188	0.040582456	4.623	1
5257 IL6R	ENST00000368485	p.T105S	c.313	0.040582456	0	1
5258 GP1BA	ENST00000329125	p.P204S	c.610	1.073658713	0	1
5258 GP1BA	ENST00000329125	p.P204L	c.611	1.073658713	0	1
5258 GP1BA	ENST00000329125	p.E228D	c.684	0.147317426	3.763	1
5259 IGF2R	ENST00000356956	p.V1888M	c.5662	0.121161227	4.045	1
5259 IGF2R	ENST00000356956	p.R1949G	c.5845	1.060580614	0	1
5259 IGF2R	ENST00000356956	p.R1949Q	c.5846	1.060580614	0	1
5260 MRI1	ENST00000040663	p.R249H	c.746	0.11558291	3.113	1
5260 MRI1	ENST00000040663	p.R288H	c.863	0.11558291	0	1
5261 PKM	ENST00000319622	p.D354N	c.1060	0.124394965	0	1
5261 PKM	ENST00000319622	p.C317Y	c.950	0.124394965	3.007	1
5262 FHOD1	ENST00000258201	p.L181F	c.541	0.057911754	4.11	1
5262 FHOD1	ENST00000258201	p.A222T	c.664	0.057911754	0	1
5263 SERPIND1	ENST00000406799	p.A161V	c.482	0.009169126	0	1
5263 SERPIND1	ENST00000406799	p.D223Y	c.667	0.009169126	6.769	1
5264 AXL	ENST00000301178	p.N43T	c.128	0.010019817	0	1
5264 AXL	ENST00000301178	p.S128F	c.383	0.010019817	6.641	1
5265 ALDH4A1	ENST00000290597	p.H358R	c.1073	0.009131072	0	1

5265	ALDH4A1	ENST00000290597	p.Y456H	c.1366	0.009131072	6.775	1
5266	FGA	ENST00000302053	p.G819R	c.2455	1.012006837	0	1
5266	FGA	ENST00000302053	p.G819A	c.2456	1.012006837	0	1
5266	FGA	ENST00000302053	p.S852F	c.2555	0.024013675	6.38	1
5267	NFASC	ENST00000367172	p.S139Y	c.416	0.074273944	0	1
5267	NFASC	ENST00000367172	p.T222I	c.665	0.074273944	3.751	1
5268	RAMP1	ENST00000409726	p.T51I	c.152	0.010709241	0	1
5268	RAMP1	ENST00000409726	p.L19I	c.55	0.010709241	6.545	1
5269	MASP1	ENST00000296280	p.E83Q	c.247	1.013917077	0	1
5269	MASP1	ENST00000296280	p.E83D	c.249	1.013917077	0	1
5269	MASP1	ENST00000296280	p.S115Y	c.344	0.027834153	6.167	1
5270	MEMO1	ENST00000379383	p.G54V	c.161	0.018073253	0	1
5270	MEMO1	ENST00000379383	p.Y292F	c.875	0.018073253	5.79	1
5271	ASB9	ENST00000380488	p.I56F	c.166	0.002833891	0	1
5271	ASB9	ENST00000380488	p.S83F	c.248	0.002833891	8.463	1
5272	PI3	ENST00000243924	p.R82W	c.244	1.092823138	9.128	2
5272	PI3	ENST00000243924	p.A84P	c.250	3.024436298	0	1
5272	PI3	ENST00000243924	p.A84T	c.250	3.024436298	0	2
5272	PI3	ENST00000243924	p.A84V	c.251_252	3.024436298	0	1
5272	PI3	ENST00000243924	p.C109Y	c.326	0.25479462	5.583	1
5273	MYO5C	ENST00000261839	p.L1382S	c.4145	0.008961774	6.802	1
5273	MYO5C	ENST00000261839	p.K1735R	c.5204	0.008961774	0	1
5274	KCNMA1	ENST00000404771	p.T1058A	c.3172	0.059539875	0	1
5274	KCNMA1	ENST00000404771	p.D1107N	c.3319	0.059539875	4.07	1
5275	CRAT	ENST00000318080	p.R37W	c.109	0.017861536	5.807	1
5275	CRAT	ENST00000318080	p.N96K	c.288	0.017861536	0	1
5276	MCL1	ENST00000369026	p.D242N	c.724	0.019478144	0	1
5276	MCL1	ENST00000369026	p.L290F	c.870	0.019478144	5.682	1
5277	CFH	ENST00000367429	p.T690I	c.2069_2070	0.262065619	2.932	1
5277	CFH	ENST00000367429	p.G736A	c.2207	1.131032809	0	1
5277	CFH	ENST00000367429	p.G736V	c.2207	1.131032809	0	1
5278	MYO5C	ENST00000261839	p.A1585V	c.4754	0.026923317	0	1
5278	MYO5C	ENST00000261839	p.D1707N	c.5119	0.026923317	5.215	1
5279	AP4B1	ENST00000256658	p.R677W	c.2029	0.167240944	2.58	1
5279	AP4B1	ENST00000256658	p.L699S	c.2096	0.167240944	0	1
5280	HSPBP1	ENST00000255631	p.A138T	c.412	0.00323056	8.274	1
5280	HSPBP1	ENST00000255631	p.A165V	c.494	0.00323056	0	1
5281	POLG	ENST00000442287	p.S809G	c.2425	0.005589752	0	1
5281	POLG	ENST00000442287	p.I840T	c.2519	0.005589752	7.483	1
5282	REG1A	ENST00000233735	p.R109H	c.326	1.126306431	0	2
5282	REG1A	ENST00000233735	p.D151Y	c.451	0.252612862	2.985	1
5283	CEACAM5	ENST00000221992	p.S599F	c.1796	0.016992006	0	1
5283	CEACAM5	ENST00000221992	p.S667P	c.1999	0.016992006	5.879	1
5284	TMPRSS11E	ENST00000305363	p.A389S	c.1165	0.032272462	5.051	1
5284	TMPRSS11E	ENST00000305363	p.I192M	c.576	0.071986733	3.839	1
5284	TMPRSS11E	ENST00000305363	p.G315E	c.944	0.10004346	0	1
5285	IMPA1	ENST00000449740	p.H159R	c.476	0.212851531	0	1
5285	IMPA1	ENST00000449740	p.K215T	c.644	0.148532135	2.855	1
5285	IMPA1	ENST00000449740	p.S216Y	c.647	0.084951003	3.744	1

5286 MME	ENST00000360490	p.K437E	c.1309	0.025443782	5.36	1
5286 MME	ENST00000360490	p.P483A	c.1447	0.069315567	0	1
5286 MME	ENST00000360490	p.E534Q	c.1600	0.046061563	4.475	1
5287 HMGCS2	ENST00000369406	p.D151N	c.451	0.004651785	7.748	1
5287 HMGCS2	ENST00000369406	p.E236Q	c.706	0.004651785	0	1
5288 CYP7A1	ENST00000301645	p.L467F	c.1401	0.063460381	3.978	1
5288 CYP7A1	ENST00000301645	p.W166C	c.498	0.063460381	0	1
5289 ADSL	ENST00000454266	p.T368M	c.1103	0.083273427	3.586	1
5289 ADSL	ENST00000454266	p.R314C	c.940	0.083273427	0	1
5291 EXOSC10	ENST00000376936	p.R427C	c.1279	0.008104843	6.947	1
5291 EXOSC10	ENST00000376936	p.P183S	c.547	0.008104843	0	1
5292 CPOX	ENST00000264193	p.P363T	c.1087	0.047202268	0	1
5292 CPOX	ENST00000264193	p.G280E	c.839	0.047202268	4.405	1
5293 ERBB3	ENST00000267101	p.M60R	c.179	0.057312753	0	1
5293 ERBB3	ENST00000267101	p.G284R	c.850	0.057312753	4.125	1
5294 C8A	ENST00000361249	p.E493K	c.1477	0.041781265	0	1
5294 C8A	ENST00000361249	p.L159M	c.475	0.041781265	4.581	1
5296 PARP3	ENST00000398755	p.E425D	c.1275	0.161992621	2.626	1
5296 PARP3	ENST00000398755	p.T482I	c.1445	0.161992621	0	1
5297 CYP2R1	ENST00000334636	p.N373S	c.1118	0.018312848	5.771	1
5297 CYP2R1	ENST00000334636	p.W321R	c.961	0.018312848	0	1
5298 CHEK1	ENST00000427383	p.H138Y	c.412	0.016851257	0	1
5298 CHEK1	ENST00000427383	p.Y173H	c.517	0.016851257	5.891	1
5299 DDX58	ENST00000379883	p.R109H	c.326	0.05230164	4.257	1
5299 DDX58	ENST00000379883	p.A30T	c.88	0.05230164	0	1
5300 FOLH1	ENST00000256999	p.D230H	c.688	0.162329825	0	1
5300 FOLH1	ENST00000256999	p.G321R	c.961	0.162329825	2.623	1
5301 FGFR4	ENST00000502906	p.V168D	c.503	0.016198455	6.948	1
5301 FGFR4	ENST00000502906	p.R203C	c.607	1.008099227	0	2
5302 REM1	ENST00000201979	p.T128N	c.383	0.001932923	0	1
5302 REM1	ENST00000201979	p.R201H	c.602	0.001932923	9.015	1
5303 APOBEC3G	ENST00000452957	p.L193I	c.577	0.068203992	3.874	1
5303 APOBEC3G	ENST00000452957	p.R238C	c.712	0.068203992	0	1
5304 CTNBL1	ENST00000361383	p.D186N	c.556	0.195874297	2.352	1
5304 CTNBL1	ENST00000361383	p.R229Q	c.686	0.195874297	0	1
5305 RRAGD	ENST00000369415	p.K180T	c.539	0.005299236	0	1
5305 RRAGD	ENST00000369415	p.I226V	c.676	0.005299236	7.56	1
5306 STS	ENST00000217961	p.P545R	c.1634	0.015009295	6.058	1
5306 STS	ENST00000217961	p.P112S	c.334	0.015009295	0	1
5307 C8B	ENST00000371237	p.N373K	c.1119	0.007104752	0	1
5307 C8B	ENST00000371237	p.C403Y	c.1208	0.007104752	7.137	1
5308 VCAM1	ENST00000294728	p.H157D	c.469	0.007625248	7.035	1
5308 VCAM1	ENST00000294728	p.V192A	c.575	0.007625248	0	1
5309 PLCB2	ENST00000260402	p.R700H	c.2099	0.096722812	0	1
5309 PLCB2	ENST00000260402	p.A749T	c.2245	0.096722812	3.37	1
5310 ITCH	ENST00000262650	p.R800H	c.2399	0.202500868	3.304	1
5310 ITCH	ENST00000262650	p.R874H	c.2621	1.101250434	0	2
5311 KIF3C	ENST00000264712	p.Y145C	c.434	0.009786441	6.675	1
5311 KIF3C	ENST00000264712	p.S182P	c.544	0.009786441	0	1

5312 BRPF3	ENST00000357641	p.R1085P	c.3254	0.009420374	0	1
5312 BRPF3	ENST00000357641	p.Q1146H	c.3438	0.009420374	6.73	1
5313 CYP2A13	ENST00000330436	p.F383L	c.1149	0.036676506	0	1
5313 CYP2A13	ENST00000330436	p.G31E	c.92	0.036676506	4.769	1
5314 DCLK1	ENST00000360631	p.G65R	c.193	1.184028358	0	2
5314 DCLK1	ENST00000360631	p.K138N	c.414	0.368056716	2.442	1
5315 CDYL	ENST00000328908	p.A465S	c.1393	0.051083458	0	1
5315 CDYL	ENST00000328908	p.A511V	c.1532	0.051083458	4.291	1
5316 BDNF	ENST00000439476	p.V140M	c.418	0.024130473	5.373	1
5316 BDNF	ENST00000439476	p.G195S	c.583	0.024130473	0	1
5317 CLK2	ENST00000536801	p.G368C	c.1102	0.001970804	8.987	1
5317 CLK2	ENST00000536801	p.D454N	c.1360	0.001970804	0	1
5318 CFH	ENST00000367429	p.P1124R	c.3371	0.01574459	0	1
5318 CFH	ENST00000367429	p.R1149Q	c.3446	0.01574459	5.989	1
5319 SETMAR	ENST00000358065	p.T213A	c.637	0.029157281	0	1
5319 SETMAR	ENST00000358065	p.L283V	c.847	0.029157281	5.1	1
5320 PNLIPRP1	ENST00000358834	p.A198V	c.593	0.010858736	0	1
5320 PNLIPRP1	ENST00000358834	p.T235A	c.703	0.010858736	6.525	1
5321 TPK1	ENST00000360057	p.Q109K	c.325	0.083273427	0	1
5321 TPK1	ENST00000360057	p.P150S	c.448	0.083273427	3.586	1
5322 ITPK1	ENST00000267615	p.P153S	c.457	0.014720801	0	1
5322 ITPK1	ENST00000267615	p.S223L	c.668	0.014720801	6.086	1
5323 C7	ENST00000313164	p.T814M	c.2441	0.194386509	0	1
5323 C7	ENST00000313164	p.A840V	c.2519	0.194386509	2.363	1
5324 TLR8	ENST00000311912	p.E624K	c.1870	0.010358795	6.593	1
5324 TLR8	ENST00000311912	p.S651T	c.1951	0.010358795	0	1
5325 RYR2	ENST00000360064	p.E253Q	c.757	0.011784219	0	1
5325 RYR2	ENST00000360064	p.D316H	c.946	0.011784219	6.407	1
5326 GSR	ENST00000221130	p.R335W	c.1003	1.013975077	0	1
5326 GSR	ENST00000221130	p.R335Q	c.1004	1.013975077	0	1
5326 GSR	ENST00000221130	p.F362I	c.1084	0.027950153	6.161	1
5327 CFHR2	ENST00000367421	p.G244A	c.731	0.115823508	3.11	1
5327 CFHR2	ENST00000367421	p.E269K	c.805	0.115823508	0	1
5328 SETD7	ENST00000274031	p.L82I	c.244	0.007899626	0	1
5328 SETD7	ENST00000274031	p.R115H	c.344	0.007899626	6.984	1
5329 PGD	ENST00000270776	p.Q337E	c.1009	0.048934644	0	1
5329 PGD	ENST00000270776	p.V276I	c.826	0.048934644	4.353	1
5330 CD274	ENST00000381577	p.S93Y	c.278	0.062543337	3.999	1
5330 CD274	ENST00000381577	p.A18T	c.52	0.062543337	0	1
5331 ANK1	ENST00000396942	p.D695N	c.2083	0.076839929	4.702	1
5331 ANK1	ENST00000396942	p.A729T	c.2185	1.038419965	0	2
5332 MAPK3	ENST00000263025	p.R152W	c.454	0.016030909	0	1
5332 MAPK3	ENST00000263025	p.I182N	c.545	0.016030909	5.963	1
5333 PTPRG	ENST00000474889	p.R857C	c.2569	0.019090517	0	1
5333 PTPRG	ENST00000474889	p.R959Q	c.2876	0.019090517	5.711	1
5334 F11R	ENST00000368026	p.P58S	c.172	1.002611329	0	1
5334 F11R	ENST00000368026	p.P58L	c.173	1.002611329	0	1
5334 F11R	ENST00000368026	p.G120W	c.358	0.005222658	8.581	1
5335 SNRNP200	ENST00000323853	p.R637Q	c.1910	1.174671005	0	2

5335 SNRNP200	ENST00000323853	p.N909H	c.2725	0.484653487	2.77	1
5335 SNRNP200	ENST00000323853	p.K1544N	c.4632	0.247578023	5.155	1
5336 PANK1	ENST00000307534	p.D467N	c.1399	0.00669825	0	1
5336 PANK1	ENST00000307534	p.S508C	c.1523	0.00669825	7.222	1
5337 ACE2	ENST00000427411	p.R169I	c.506	1.102663838	0	2
5337 ACE2	ENST00000427411	p.W271C	c.813	0.205327675	3.284	1
5338 CRYL1	ENST00000298248	p.P162L	c.485	0.034987903	0	1
5338 CRYL1	ENST00000298248	p.E189D	c.567	0.034987903	4.837	1
5339 ACVR1	ENST00000409283	p.G356D	c.1067	0.175127587	0	1
5339 ACVR1	ENST00000409283	p.R247K	c.740	0.161083179	2.658	1
5339 ACVR1	ENST00000409283	p.L251S	c.752	0.019332636	5.905	1
5340 ACVR1	ENST00000409283	p.L495F	c.1485	0.020039634	0	1
5340 ACVR1	ENST00000409283	p.R307Q	c.920	0.020039634	5.641	1
5341 EDA	ENST00000374552	p.L266I	c.796	0.014278245	7.715	1
5341 EDA	ENST00000374552	p.R289C	c.865	2.004759415	0	1
5341 EDA	ENST00000374552	p.R289S	c.865	2.004759415	0	1
5341 EDA	ENST00000374552	p.R289N	c.865_866	2.004759415	0	1
5342 ESRRA	ENST00000000442	p.E419K	c.1255	0.081672828	3.614	1
5342 ESRRA	ENST00000000442	p.G301D	c.902	0.081672828	0	1
5343 BIN2	ENST00000267012	p.L68R	c.203	0.098498807	0	1
5343 BIN2	ENST00000267012	p.E114K	c.340	0.089374062	3.484	1
5343 BIN2	ENST00000267012	p.R123K	c.368	0.009124745	6.776	1
5344 PRKAA2	ENST00000371244	p.R407Q	c.1220	1.006958538	0	2
5344 PRKAA2	ENST00000371244	p.D461N	c.1381	0.013917077	7.167	1
5345 KIN	ENST00000379562	p.R83C	c.247	0.09226965	3.438	1
5345 KIN	ENST00000379562	p.K160M	c.479	0.09226965	0	1
5346 RGS7	ENST00000407727	p.K451N	c.1353	0.033383564	0	1
5346 RGS7	ENST00000407727	p.S323R	c.969	0.016142412	5.953	1
5346 RGS7	ENST00000407727	p.V327I	c.979	0.017241152	5.858	1
5347 MAPRE3	ENST00000233121	p.F63V	c.187	0.258816231	0	1
5347 MAPRE3	ENST00000233121	p.R130Q	c.389	0.258816231	1.95	1
5348 PCK1	ENST00000319441	p.M60I	c.180	0.017145812	5.866	1
5348 PCK1	ENST00000319441	p.V166M	c.496	0.017145812	0	1
5349 CNTN2	ENST00000331830	p.R140Q	c.419	0.010401966	0	1
5349 CNTN2	ENST00000331830	p.S206F	c.617	0.010401966	6.587	1
5350 GALNS	ENST00000268695	p.T235M	c.704	0.076362069	0	1
5350 GALNS	ENST00000268695	p.V258I	c.772	0.076362069	3.711	1
5351 CUL1	ENST00000602748	p.C53Y	c.158	0.013084476	6.256	1
5351 CUL1	ENST00000602748	p.N141S	c.422	0.013084476	0	1
5352 PASK	ENST00000358649	p.G1085S	c.3253	0.002034655	0	1
5352 PASK	ENST00000358649	p.E1145K	c.3433	0.002034655	8.941	1
5353 RAB6B	ENST00000285208	p.R60H	c.179	0.100690536	3.312	1
5353 RAB6B	ENST00000285208	p.P175L	c.524	0.100690536	0	1
5354 RAP1A	ENST00000436150	p.T89M	c.266	0.069733708	0	1
5354 RAP1A	ENST00000436150	p.S11L	c.32	0.069733708	3.842	1
5355 OAS1	ENST00000445409	p.D75E	c.225	0.060162153	0	1
5355 OAS1	ENST00000445409	p.I30T	c.89	0.060162153	4.055	1
5356 STK4	ENST00000372806	p.T120M	c.359	0.082698215	3.596	1
5356 STK4	ENST00000372806	p.E219K	c.655	0.082698215	0	1

5357 MSL3	ENST00000312196	p.K475N	c.1425	0.00530291	0	1
5357 MSL3	ENST00000312196	p.L253F	c.757	0.00530291	7.559	1
5358 TASP1	ENST00000337743	p.C349S	c.1045	0.077750728	0	1
5358 TASP1	ENST00000337743	p.Y284C	c.851	0.077750728	3.685	1
5359 SETD2	ENST00000409792	p.P1979L	c.5936	0.03742121	4.74	1
5359 SETD2	ENST00000409792	p.D2007Y	c.6019	0.03742121	0	1
5360 ALOX15B	ENST00000380183	p.D505N	c.1513	0.026663316	0	1
5360 ALOX15B	ENST00000380183	p.R138L	c.413	0.026663316	5.229	1
5361 CPB1	ENST00000282957	p.A352S	c.1054	0.087899575	3.508	1
5361 CPB1	ENST00000282957	p.A317S	c.949	0.087899575	0	1
5362 CSTA	ENST00000264474	p.M65T	c.194	0.281264621	0	1
5362 CSTA	ENST00000264474	p.L27P	c.80	0.281264621	1.83	1
5363 AAMDC	ENST00000533193	p.Q109H	c.327	0.090370768	3.468	1
5363 AAMDC	ENST00000533193	p.I136V	c.406	0.090370768	0	1
5364 MTRR	ENST00000264668	p.L401F	c.1201	0.089250249	3.486	1
5364 MTRR	ENST00000264668	p.P473S	c.1417	0.089250249	0	1
5365 CYP11A1	ENST00000268053	p.R204H	c.611	1.014741223	0	2
5365 CYP11A1	ENST00000268053	p.S332F	c.995	0.044223668	6.084	1
5366 MALT1	ENST00000348428	p.E368G	c.1103	0.018010724	5.795	1
5366 MALT1	ENST00000348428	p.K513T	c.1538	0.018010724	0	1
5367 PAK7	ENST00000378423	p.A555D	c.1664	0.010124539	0	1
5367 PAK7	ENST00000378423	p.A691T	c.2071	0.010124539	6.626	1
5368 C1S	ENST00000328916	p.D537Y	c.1609	0.017062821	5.873	1
5368 C1S	ENST00000328916	p.K644N	c.1932	0.017062821	0	1
5369 PAK7	ENST00000378423	p.M523I	c.1569	0.010380358	6.59	1
5369 PAK7	ENST00000378423	p.D586N	c.1756	0.010380358	0	1
5370 SEC24B	ENST00000504968	p.L621P	c.1862	0.079054971	3.661	1
5370 SEC24B	ENST00000504968	p.R1024K	c.3071	0.079054971	0	1
5371 F5	ENST00000367796	p.R676G	c.2026	0.075939799	3.719	1
5371 F5	ENST00000367796	p.Y1736C	c.5207	0.075939799	0	1
5372 PAPOLG	ENST00000238714	p.A151V	c.452	0.028359974	0	1
5372 PAPOLG	ENST00000238714	p.R198H	c.593	0.028359974	5.14	1
5373 FNBP1	ENST00000446176	p.Q54H	c.162	0.01610888	6.956	1
5373 FNBP1	ENST00000446176	p.E79K	c.235	1.00805444	0	2
5374 FGF2	ENST00000264498	p.I176F	c.526	0.214047071	2.224	1
5374 FGF2	ENST00000264498	p.A226V	c.677	0.214047071	0	1
5375 IL15	ENST00000529613	p.E76V	c.227	0.007380836	7.082	1
5375 IL15	ENST00000529613	p.E141K	c.421	0.007380836	0	1
5376 CKM	ENST00000221476	p.P143T	c.427	0.061154477	0	1
5376 CKM	ENST00000221476	p.E231K	c.691	0.057193698	4.128	1
5376 CKM	ENST00000221476	p.M272T	c.815	0.003960779	7.98	1
5377 AGO1	ENST00000373204	p.D51N	c.151	0.043525359	5.522	1
5377 AGO1	ENST00000373204	p.R139Q	c.416	1.021762679	0	2
5378 CDK12	ENST00000447079	p.R773H	c.2318	0.07899814	5.247	1
5378 CDK12	ENST00000447079	p.K853N	c.2559	0.033858145	6.781	1
5378 CDK12	ENST00000447079	p.R882W	c.2644	2.035425889	0	2
5378 CDK12	ENST00000447079	p.R882L	c.2645	2.035425889	0	1
5379 DFNB31	ENST00000362057	p.I353F	c.1057	1.14569265	0	1
5379 DFNB31	ENST00000362057	p.I353M	c.1059	1.14569265	0	1

5379	DFNB31	ENST00000362057	p.D393N	c.1177	0.2913853	2.779	1
5380	NLGN4X	ENST00000381095	p.W527L	c.1580	1.100133735	4.32	1
5380	NLGN4X	ENST00000381095	p.W527C	c.1581	1.100133735	4.32	1
5380	NLGN4X	ENST00000381095	p.F251Y	c.752	1.100133735	0	1
5380	NLGN4X	ENST00000381095	p.F251L	c.753	1.100133735	0	1
5381	AQP2	ENST00000199280	p.A70V	c.209	0.02373237	5.397	1
5381	AQP2	ENST00000199280	p.N184I	c.551	0.02373237	0	1
5382	DDX58	ENST00000379883	p.L391V	c.1171	0.04965215	4.332	1
5382	DDX58	ENST00000379883	p.K788T	c.2363	0.04965215	0	1
5383	JMJD6	ENST00000445478	p.H187N	c.559	0.073302184	3.77	1
5383	JMJD6	ENST00000445478	p.W271C	c.813	0.073302184	0	1
5384	SFTPD	ENST00000372292	p.G145E	c.434	0.009175484	6.768	1
5384	SFTPD	ENST00000372292	p.H240R	c.719	0.009175484	0	1
5385	DTX3L	ENST00000296161	p.R660Q	c.1979	0.007577827	0	1
5385	DTX3L	ENST00000296161	p.H708R	c.2123	0.007577827	7.044	1
5386	B4GALT1	ENST00000379731	p.F232S	c.695	0.011288519	6.469	1
5386	B4GALT1	ENST00000379731	p.L292P	c.875	0.011288519	0	1
5387	GFPT1	ENST00000357308	p.Q404E	c.1210	0.024013675	0	1
5387	GFPT1	ENST00000357308	p.N426H	c.1276	0.024013675	5.38	1
5388	NEU2	ENST00000233840	p.E355K	c.1063	0.014833471	6.075	1
5388	NEU2	ENST00000233840	p.R41W	c.121	0.014833471	0	1
5389	STARD6	ENST00000307844	p.P58T	c.172	0.099580012	3.328	1
5389	STARD6	ENST00000307844	p.R119C	c.355	0.099580012	0	1
5390	LANCL1	ENST00000443314	p.R41W	c.121	0.013021144	6.263	1
5390	LANCL1	ENST00000443314	p.D81N	c.241	0.013021144	0	1
5391	MLKL	ENST00000308807	p.E351K	c.1051	0.097193254	3.363	1
5391	MLKL	ENST00000308807	p.G330R	c.988	0.097193254	0	1
5392	GBA	ENST00000327247	p.L280F	c.840	0.011461979	0	1
5392	GBA	ENST00000327247	p.D322N	c.964	0.011461979	6.447	1
5393	RNF41	ENST00000552656	p.A209V	c.626	0.046520164	4.426	1
5393	RNF41	ENST00000552656	p.E316D	c.948	0.046520164	0	1
5394	BHMT	ENST00000274353	p.I13N	c.38	0.01924997	5.699	1
5394	BHMT	ENST00000274353	p.S211Y	c.632	0.01924997	0	1
5395	GRM7	ENST00000467425	p.T354A	c.1060	0.016367752	5.933	1
5395	GRM7	ENST00000467425	p.R395I	c.1184	0.016367752	0	1
5396	ESR1	ENST00000440973	p.H196R	c.587	0.611010737	2.301	1
5396	ESR1	ENST00000440973	p.Y197C	c.590	0.035412165	6.499	1
5396	ESR1	ENST00000440973	p.E247K	c.739	2.2139786	0	3
5397	CASQ2	ENST00000261448	p.I149S	c.446	0.009303569	6.748	1
5397	CASQ2	ENST00000261448	p.F195L	c.585	0.009303569	0	1
5398	MAOB	ENST00000378069	p.R87C	c.259	0.018645871	5.745	1
5398	MAOB	ENST00000378069	p.F168L	c.504	0.007494251	7.06	1
5398	MAOB	ENST00000378069	p.S200L	c.599	0.026140122	0	1
5399	CSF2RB	ENST00000406230	p.R34C	c.100	0.016851257	5.891	1
5399	CSF2RB	ENST00000406230	p.A85S	c.253	0.016851257	0	1
5400	PRPF4B	ENST00000480058	p.F854C	c.2561	0.007635826	0	1
5400	PRPF4B	ENST00000480058	p.T878I	c.2633	0.007635826	7.033	1
5401	MAP3K7	ENST00000369329	p.V212F	c.634	0.019011287	0	1
5401	MAP3K7	ENST00000369329	p.R265H	c.794	0.019011287	5.717	1

5402	ITGAX	ENST00000562522	p.L381M	c.1141	0.102592701	3.285	1
5402	ITGAX	ENST00000562522	p.Q438H	c.1314	0.102592701	0	1
5403	DDI1	ENST00000302259	p.P254S	c.760	1.272815969	2.874	1
5403	DDI1	ENST00000302259	p.P254L	c.761	1.272815969	2.874	1
5403	DDI1	ENST00000302259	p.R275Q	c.824	1.272815969	0	2
5404	GAN	ENST00000568107	p.Q176E	c.526	0.005566553	7.489	1
5404	GAN	ENST00000568107	p.H213N	c.637	0.005566553	0	1
5405	EGF	ENST00000265171	p.Y983C	c.2948	0.00682952	7.194	1
5405	EGF	ENST00000265171	p.G1009V	c.3026	0.00682952	0	1
5407	KYNU	ENST00000264170	p.R358W	c.1072	0.1376427	0	1
5407	KYNU	ENST00000264170	p.R399Q	c.1196	0.1376427	2.861	1
5408	MYO5B	ENST00000285039	p.P1675H	c.5024	0.015345931	6.026	1
5408	MYO5B	ENST00000285039	p.P1823Q	c.5468	0.015345931	0	1
5409	USB1	ENST00000219281	p.N80S	c.239	0.065244495	0	1
5409	USB1	ENST00000219281	p.R130H	c.389	0.065244495	3.938	1
5410	RNASEL	ENST00000444138	p.G239Q	c.716_715	0.066846693	3.903	1
5410	RNASEL	ENST00000444138	p.S271T	c.812	0.066846693	0	1
5411	TNPO1	ENST00000337273	p.A202T	c.604	0.010365978	6.592	1
5411	TNPO1	ENST00000337273	p.S223Y	c.668	0.010365978	0	1
5412	NUDT5	ENST00000378937	p.W59R	c.175	0.022923959	0	1
5412	NUDT5	ENST00000378937	p.G178V	c.533	0.022923959	5.447	1
5413	KPNB1	ENST00000540627	p.L569M	c.1705	0.092911437	3.428	1
5413	KPNB1	ENST00000540627	p.L594V	c.1780	0.092911437	0	1
5414	IMPDH1	ENST00000338791	p.P274S	c.820	0.003033082	0	1
5414	IMPDH1	ENST00000338791	p.L303V	c.907	0.003033082	8.365	1
5415	ROCK1	ENST00000399799	p.S118F	c.353	0.007345111	7.089	1
5415	ROCK1	ENST00000399799	p.T233A	c.697	0.007345111	0	1
5416	PDK4	ENST00000005178	p.R58Q	c.173	0.156800276	2.673	1
5416	PDK4	ENST00000005178	p.F102V	c.304	0.156800276	0	1
5417	FABP3	ENST00000373713	p.G121S	c.361	0.05230164	4.257	1
5417	FABP3	ENST00000373713	p.D18V	c.53	0.05230164	0	1
5418	TNKS2	ENST00000371627	p.A1062V	c.3185	0.070854338	0	1
5418	TNKS2	ENST00000371627	p.A1137D	c.3410	0.070854338	3.819	1
5419	RPL10	ENST00000344746	p.E56K	c.166	0.023798262	5.393	1
5419	RPL10	ENST00000344746	p.P160S	c.478	0.023798262	0	1
5420	MMAB	ENST00000545712	p.S180L	c.539	0.006910472	7.177	1
5420	MMAB	ENST00000545712	p.A227V	c.680	0.006910472	0	1
5421	KSR2	ENST00000339824	p.A869T	c.2605	0.005585879	0	1
5421	KSR2	ENST00000339824	p.L894I	c.2680	0.005585879	7.484	1
5422	COP55	ENST00000357849	p.L60S	c.179	0.010979834	6.509	1
5422	COP55	ENST00000357849	p.R235C	c.703	0.010979834	0	1
5423	F7	ENST00000375581	p.H408Y	c.1222	0.021021363	5.572	1
5423	F7	ENST00000375581	p.L333M	c.997	0.021021363	0	1
5424	BHMT	ENST00000274353	p.L355I	c.1063	0.15976242	2.646	1
5424	BHMT	ENST00000274353	p.P265S	c.793	0.15976242	0	1
5425	MARK1	ENST00000366917	p.L76F	c.228	0.00791607	0	1
5425	MARK1	ENST00000366917	p.A139V	c.416	0.00791607	6.981	1
5426	CD180	ENST00000256447	p.L178M	c.532	0.008912217	7.81	1
5426	CD180	ENST00000256447	p.N228T	c.683	1.004456108	0	2

5427	SOS1	ENST00000426016	p.N585T	c.1754	0.035255692	4.826	1
5427	SOS1	ENST00000426016	p.R950I	c.2849	0.035255692	0	1
5428	DPYSL2	ENST00000311151	p.Q149H	c.447	0.015646676	5.998	1
5428	DPYSL2	ENST00000311151	p.E183K	c.547	0.015646676	0	1
5429	REG3A	ENST00000305165	p.G96A	c.287	0.146352366	2.977	1
5429	REG3A	ENST00000305165	p.N97K	c.291	0.171644881	2.715	1
5429	REG3A	ENST00000305165	p.R151K	c.452	0.279310051	0	1
5430	FXR1	ENST00000357559	p.V224A	c.671	0.098686736	3.341	1
5430	FXR1	ENST00000357559	p.F262L	c.786	0.098686736	0	1
5431	IL1RN	ENST00000259206	p.K99N	c.297	0.192905141	2.411	1
5431	IL1RN	ENST00000259206	p.E103K	c.307	0.030831861	5.268	1
5431	IL1RN	ENST00000259206	p.R125H	c.374	0.213977657	0	1
5432	HTRA1	ENST00000368984	p.D432N	c.1294	0.021974894	5.508	1
5432	HTRA1	ENST00000368984	p.I434T	c.1301	0.024348893	5.36	1
5432	HTRA1	ENST00000368984	p.I471F	c.1411	0.046323787	0	1
5433	CSAD	ENST00000267085	p.R106C	c.316	0.013946046	0	1
5433	CSAD	ENST00000267085	p.V150M	c.448	0.013946046	6.164	1
5434	MAT2A	ENST00000306434	p.R356C	c.1066	0.174430041	0	1
5434	MAT2A	ENST00000306434	p.D129Y	c.385	0.131258871	2.999	1
5434	MAT2A	ENST00000306434	p.P327L	c.980	0.055515566	4.341	1
5435	GSR	ENST00000221130	p.T413I	c.1238	0.023864336	5.389	1
5435	GSR	ENST00000221130	p.E438K	c.1312	0.023864336	0	1
5436	CALCRL	ENST00000392370	p.D55G	c.164	0.030039404	5.057	1
5436	CALCRL	ENST00000392370	p.D77N	c.229	0.030039404	0	1
5437	CLCNKA	ENST00000331433	p.A644T	c.1930	0.013763584	6.183	1
5437	CLCNKA	ENST00000331433	p.W670C	c.2010	0.013763584	0	1
5438	PCDH7	ENST00000543491	p.R372W	c.1114	0.140048652	0	1
5438	PCDH7	ENST00000543491	p.P323L	c.968	0.140048652	2.836	1
5439	DYRK2	ENST00000344096	p.M405L	c.1213	0.101390894	4.302	1
5439	DYRK2	ENST00000344096	p.R523H	c.1568	1.050695447	0	2
5440	SERPINE1	ENST00000223095	p.A119V	c.356	0.144485838	2.791	1
5440	SERPINE1	ENST00000223095	p.W162C	c.486	0.144485838	0	1
5441	CX3CL1	ENST00000563383	p.K44R	c.131	0.023163547	0	1
5441	CX3CL1	ENST00000563383	p.A68T	c.202	0.023163547	5.432	1
5442	DPYS	ENST00000351513	p.R394T	c.1181	0.114387396	0	1
5442	DPYS	ENST00000351513	p.D18N	c.52	0.114387396	3.128	1
5443	ASH1L	ENST00000368346	p.R2078C	c.6232	1.022112409	0	2
5443	ASH1L	ENST00000368346	p.E2142G	c.6425	0.044224818	5.499	1
5444	MLKL	ENST00000308807	p.K346R	c.1037	0.154106541	0	1
5444	MLKL	ENST00000308807	p.P260L	c.779	0.154106541	2.698	1
5445	APOBEC2	ENST00000244669	p.F56L	c.166	0.040915416	4.689	1
5445	APOBEC2	ENST00000244669	p.G88E	c.263	0.006094764	7.985	1
5445	APOBEC2	ENST00000244669	p.V187I	c.559	0.042714804	0	1
5446	EXO1	ENST00000348581	p.A98T	c.292	0.006791754	7.202	1
5446	EXO1	ENST00000348581	p.R121P	c.362	0.006791754	0	1
5447	SEMA7A	ENST00000261918	p.R167I	c.500	0.004126116	7.921	1
5447	SEMA7A	ENST00000261918	p.R204C	c.610	0.004126116	0	1
5448	CYTH2	ENST00000427476	p.V141L	c.421	0.082126977	3.606	1
5448	CYTH2	ENST00000427476	p.V192I	c.574	0.082126977	0	1

5449	TEAD2	ENST00000598810	p.S353F	c.1058	0.009061716	6.786	1
5449	TEAD2	ENST00000598810	p.V406I	c.1216	0.009061716	0	1
5450	KIT	ENST00000288135	p.Y418S	c.1253	0.061341191	0	1
5450	KIT	ENST00000288135	p.E490D	c.1470	0.061341191	4.027	1
5451	SH3GL3	ENST00000324537	p.N215K	c.645	0.025050792	0	1
5451	SH3GL3	ENST00000324537	p.R261Q	c.782	0.025050792	5.319	1
5452	NR5A2	ENST00000367362	p.R393Q	c.1178	0.059705184	6.066	1
5452	NR5A2	ENST00000367362	p.R439C	c.1315	3.014926296	0	3
5452	NR5A2	ENST00000367362	p.R439H	c.1316	3.014926296	0	1
5453	DNM1	ENST00000372923	p.E410Q	c.1228	0.05739226	4.123	1
5453	DNM1	ENST00000372923	p.M486I	c.1458	0.05739226	0	1
5454	OAS1	ENST00000445409	p.P167S	c.499	0.011056204	6.499	1
5454	OAS1	ENST00000445409	p.Y275C	c.824	0.011056204	0	1
5455	TOP2A	ENST00000423485	p.E884in_frame_del	c.2652_2650	0.0078125	0	1
5455	TOP2A	ENST00000423485	p.L1016S	c.3047	0.0078125	7	1
5456	PANK1	ENST00000307534	p.E454Q	c.1360	0.041607863	0	1
5456	PANK1	ENST00000307534	p.M501I	c.1503	0.041607863	4.587	1
5457	CAPN9	ENST00000271971	p.H132Y	c.394	0.026168953	0	1
5457	CAPN9	ENST00000271971	p.E30Q	c.88	0.026168953	5.256	1
5458	GLS	ENST00000320717	p.V422M	c.1264	0.011210543	0	1
5458	GLS	ENST00000320717	p.L291F	c.873	0.011210543	6.479	1
5459	ITPA	ENST00000380113	p.I40M	c.120	0.025524031	0	1
5459	ITPA	ENST00000380113	p.V68M	c.202	0.025524031	5.292	1
5461	PTPRS	ENST00000372412	p.S46L	c.137	0.015581738	0	1
5461	PTPRS	ENST00000372412	p.C217R	c.649	0.015581738	6.004	1
5462	MEN1	ENST00000394376	p.E413Q	c.1237	0.008206598	6.929	1
5462	MEN1	ENST00000394376	p.A442D	c.1325	0.008206598	0	1
5463	DPP3	ENST00000531863	p.R698C	c.2092	0.036778336	0	1
5463	DPP3	ENST00000531863	p.R723C	c.2167	0.036778336	4.765	1
5464	AHCYL2	ENST00000325006	p.F368C	c.1103	0.087899575	3.508	1
5464	AHCYL2	ENST00000325006	p.F534C	c.1601	0.087899575	0	1
5465	APOH	ENST00000205948	p.R154C	c.460	0.053883972	0	1
5465	APOH	ENST00000205948	p.D184Y	c.550	0.053883972	4.214	1
5466	RELA	ENST00000406246	p.G208S	c.622	0.076203443	0	1
5466	RELA	ENST00000406246	p.P256L	c.767	0.076203443	3.714	1
5467	LMNB1	ENST00000261366	p.D450H	c.1348	1.10628427	0	1
5467	LMNB1	ENST00000261366	p.D450G	c.1349	1.10628427	0	1
5467	LMNB1	ENST00000261366	p.S520P	c.1558	0.21256854	3.234	1
5468	KIF15	ENST00000326047	p.A367V	c.1100	0.007530702	0	1
5468	KIF15	ENST00000326047	p.G329E	c.986	0.007530702	7.053	1
5469	SYTL4	ENST00000454200	p.V377I	c.1129	0.007183985	7.121	1
5469	SYTL4	ENST00000454200	p.R413G	c.1237	0.007183985	0	1
5470	SIRT5	ENST00000606117	p.L239R	c.716	0.016886334	0	1
5470	SIRT5	ENST00000606117	p.V269M	c.805	0.016886334	5.888	1
5471	DAPK1	ENST00000358077	p.V96I	c.286	0.180866861	2.467	1
5471	DAPK1	ENST00000358077	p.L148F	c.444	0.180866861	0	1
5472	MAF1	ENST00000532522	p.A153V	c.458	0.072795849	3.78	1
5472	MAF1	ENST00000532522	p.R28M	c.83	0.072795849	0	1
5473	KCNU1	ENST00000399881	p.P868S	c.2602	0.002192815	0	1

5473	KCNU1	ENST00000399881	p.L891I	c.2671	0.002192815	8.833	1
5474	BIRC6	ENST00000421745	p.T4539M	c.13616	0.063240825	3.983	1
5474	BIRC6	ENST00000421745	p.C4770Y	c.14309	0.063240825	0	1
5475	C5	ENST00000223642	p.Y501D	c.1501	0.040470094	4.627	1
5475	C5	ENST00000223642	p.Y543C	c.1628	0.040470094	0	1
5476	VPS4B	ENST00000238497	p.A37D	c.110	0.243838865	2.036	1
5476	VPS4B	ENST00000238497	p.L14M	c.40	0.243838865	0	1
5477	DPYSL5	ENST00000288699	p.K480in_frame_del	c.1436_1438	0.009929935	0	1
5477	DPYSL5	ENST00000288699	p.W136C	c.408	0.009929935	6.654	1
5478	FBXL3	ENST00000355619	p.R256H	c.767	0.023683071	0	1
5478	FBXL3	ENST00000355619	p.F294V	c.880	0.023683071	5.4	1
5479	GOLPH3	ENST00000265070	p.I85V	c.253	1.018958649	0	1
5479	GOLPH3	ENST00000265070	p.I85M	c.255	1.018958649	0	1
5479	GOLPH3	ENST00000265070	p.D247Y	c.739	0.037917299	5.721	1
5480	SELP	ENST00000263686	p.R63C	c.187	0.013499034	6.211	1
5480	SELP	ENST00000263686	p.E199D	c.597	0.013499034	0	1
5481	IL17RA	ENST00000319363	p.A214V	c.641	0.007463148	7.066	1
5481	IL17RA	ENST00000319363	p.E247Q	c.739	0.010005936	6.643	1
5481	IL17RA	ENST00000319363	p.R271C	c.811	0.017469084	0	1
5482	NAALAD2	ENST00000534061	p.L249F	c.747	0.148373028	0	1
5482	NAALAD2	ENST00000534061	p.G278E	c.833	0.103981073	3.335	1
5482	NAALAD2	ENST00000534061	p.P280L	c.839	0.054158067	4.343	1
5483	BPIFA1	ENST00000375413	p.R128S	c.382	0.077267204	0	1
5483	BPIFA1	ENST00000375413	p.I163M	c.489	0.077267204	3.694	1
5484	TDP1	ENST00000393454	p.D230N	c.688	0.019437682	0	1
5484	TDP1	ENST00000393454	p.A253T	c.757	0.019437682	5.685	1
5485	GOT1	ENST00000370508	p.G392D	c.1175	0.014004167	0	1
5485	GOT1	ENST00000370508	p.T43M	c.128	0.014004167	6.158	1
5486	AHCY	ENST00000217426	p.E341K	c.1021	0.089374062	3.484	1
5486	AHCY	ENST00000217426	p.V308I	c.922	0.089374062	0	1
5487	ACHE	ENST00000411582	p.V176E	c.527	0.013294746	0	1
5487	ACHE	ENST00000411582	p.A219T	c.655	0.013294746	6.233	1
5488	MBTD1	ENST00000415868	p.H490D	c.1468	0.053437636	0	1
5488	MBTD1	ENST00000415868	p.R520S	c.1558	0.053437636	4.226	1
5489	UBA3	ENST00000361055	p.E251V	c.752	0.163912752	2.609	1
5489	UBA3	ENST00000361055	p.R308I	c.923	0.163912752	0	1
5490	POR	ENST00000447222	p.D698V	c.2093	0.0233085	5.423	1
5491	SERPINE1	ENST00000223095	p.G39W	c.115	0.016187231	0	1
5491	SERPINE1	ENST00000223095	p.G61R	c.181	0.016187231	5.949	1
5492	SNF8	ENST00000502492	p.K44N	c.132	0.191179535	3.387	1
5492	SNF8	ENST00000502492	p.F86L	c.256	1.095589767	0	1
5492	SNF8	ENST00000502492	p.F86C	c.257	1.095589767	0	1
5493	TTN	ENST00000589042	p.E33106K	c.99316	0.011140826	6.488	1
5493	TTN	ENST00000589042	p.S33186N	c.99557	0.011140826	0	1
5494	RAD1	ENST00000382038	p.V152F	c.454	0.402483069	2.313	1
5494	RAD1	ENST00000382038	p.R244W	c.730	1.201241534	0	2
5495	FBXO4	ENST00000281623	p.L378I	c.1132	0.0048359	7.692	1
5495	FBXO4	ENST00000281623	p.N175S	c.524	0.0048359	0	1
5496	ME2	ENST00000321341	p.Q338H	c.1014	0.087595466	0	1

5496 ME2	ENST00000321341	p.F365C	c.1094	0.087595466	3.513	1
5497 PAPSS2	ENST00000456849	p.A61V	c.182	0.005093948	7.617	1
5497 PAPSS2	ENST00000456849	p.H204Q	c.612	0.005093948	0	1
5498 BIRC6	ENST00000421745	p.E4526K	c.13576	0.070707154	3.822	1
5498 BIRC6	ENST00000421745	p.N4682K	c.14046	0.070707154	0	1
5499 RBBP9	ENST00000337227	p.S76F	c.227	0.007243989	7.109	1
5499 RBBP9	ENST00000337227	p.A98V	c.293	0.016935921	0	1
5499 RBBP9	ENST00000337227	p.W143S	c.428	0.009691932	6.689	1
5500 DAO	ENST00000228476	p.D46N	c.136	0.063065727	3.987	1
5500 DAO	ENST00000228476	p.G141E	c.422	0.063065727	0	1
5501 SYT13	ENST00000020926	p.K161R	c.482	0.245364766	2.027	1
5501 SYT13	ENST00000020926	p.E276K	c.826	0.245364766	0	1
5502 HDAC7	ENST00000380610	p.R787C	c.2359	0.132310549	2.918	1
5502 HDAC7	ENST00000380610	p.A864T	c.2590	0.132310549	0	1
5503 CETN2	ENST00000370277	p.L39I	c.115	0.019276675	5.697	1
5503 CETN2	ENST00000370277	p.R16Q	c.47	0.019276675	0	1
5504 EIF4A3	ENST00000269349	p.L354F	c.1060	0.067405027	3.891	1
5504 EIF4A3	ENST00000269349	p.R387H	c.1160	0.067405027	0	1
5505 DDX6	ENST00000264018	p.G397D	c.1190	0.015399208	6.021	1
5505 DDX6	ENST00000264018	p.E302D	c.906	0.015399208	0	1
5506 PARN	ENST00000437198	p.P132L	c.395	0.085023178	3.556	1
5506 PARN	ENST00000437198	p.D266Y	c.796	0.085023178	0	1
5507 LTF	ENST00000231751	p.S439I	c.1316	0.074376981	0	1
5507 LTF	ENST00000231751	p.Q571H	c.1713	0.074376981	3.749	1
5508 CFB	ENST00000556679	p.S780T	c.2338	0.12869251	2.958	1
5508 CFB	ENST00000556679	p.S853L	c.2558	0.12869251	0	1
5509 BIRC5	ENST00000301633	p.P52Q	c.155	0.020948634	0	1
5509 BIRC5	ENST00000301633	p.K23E	c.67	0.020948634	5.577	1
5510 LGR4	ENST00000379214	p.R156W	c.466	1.153573373	0	2
5510 LGR4	ENST00000379214	p.Q180R	c.539	0.307146745	2.703	1
5511 CA4	ENST00000300900	p.V38A	c.113	0.013030173	0	1
5511 CA4	ENST00000300900	p.V170G	c.509	0.013030173	6.262	1
5512 PGC	ENST00000373025	p.P82S	c.244	0.028716028	5.122	1
5512 PGC	ENST00000373025	p.S121F	c.362	0.028716028	0	1
5513 PGR	ENST00000325455	p.D709E	c.2127	0.34820287	2.522	1
5513 PGR	ENST00000325455	p.R788G	c.2362	1.174101435	0	1
5513 PGR	ENST00000325455	p.R788W	c.2362	1.174101435	0	1
5514 NOS2	ENST00000313735	p.L423I	c.1267	0.009264957	6.754	1
5514 NOS2	ENST00000313735	p.E332K	c.994	0.009264957	0	1
5515 CHAT	ENST00000337653	p.A533T	c.1597	0.017689045	5.821	1
5515 CHAT	ENST00000337653	p.R605C	c.1813	0.017689045	0	1
5516 PPIG	ENST00000260970	p.S89F	c.266	0.102450576	0	1
5516 PPIG	ENST00000260970	p.G121D	c.362	0.102450576	3.287	1
5517 TDRD3	ENST00000196169	p.R574Q	c.1721	0.012318753	6.343	1
5517 TDRD3	ENST00000196169	p.G595R	c.1783	0.012318753	0	1
5518 INTS3	ENST00000318967	p.R346H	c.1037	1.094208432	0	2
5518 INTS3	ENST00000318967	p.S389F	c.1166	0.188416864	3.408	1
5519 HBB	ENST00000335295	p.P37A	c.109	0.075102253	0	1
5519 HBB	ENST00000335295	p.P101S	c.301	0.075102253	3.735	1

5520	GLIPR2	ENST00000377960	p.W109L	c.326	0.081333866	0	1
5520	GLIPR2	ENST00000377960	p.V149I	c.445	0.081333866	3.62	1
5521	TNFSF18	ENST00000404377	p.K90N	c.270	0.033492921	4.9	1
5521	TNFSF18	ENST00000404377	p.M145I	c.435	0.033492921	0	1
5522	PRKCG	ENST00000540413	p.S35N	c.104	0.043015488	5.539	1
5522	PRKCG	ENST00000540413	p.E79K	c.235	1.021507744	0	2
5523	MMP2	ENST00000570308	p.N209K	c.627	0.011533706	0	1
5523	MMP2	ENST00000570308	p.R234C	c.700	0.011533706	6.438	1
5524	CDT1	ENST00000301019	p.R198L	c.593	0.014219357	0	1
5524	CDT1	ENST00000301019	p.Y247D	c.739	0.014219357	6.136	1
5525	BCR	ENST00000305877	p.F7L	c.18_19	0.004944362	7.66	1
5525	BCR	ENST00000305877	p.A64G	c.191	0.004944362	0	1
5526	SPTBN1	ENST00000356805	p.E1725K	c.5173	0.053142135	0	1
5526	SPTBN1	ENST00000356805	p.L1801I	c.5401	0.053142135	4.234	1
5527	CNOT1	ENST00000317147	p.R2263C	c.6787	1.045879707	0	1
5527	CNOT1	ENST00000317147	p.R2263H	c.6788	1.045879707	0	1
5527	CNOT1	ENST00000317147	p.T2297M	c.6890	0.091759415	4.446	1
5528	STK10	ENST00000176763	p.L85P	c.254	0.013975077	6.161	1
5528	STK10	ENST00000176763	p.A174S	c.520	0.013975077	0	1
5529	ACADSB	ENST00000358776	p.D238N	c.712	0.01170282	6.417	1
5529	ACADSB	ENST00000358776	p.H245Y	c.733	0.015082297	6.051	1
5529	ACADSB	ENST00000358776	p.V268I	c.802	0.026785117	0	1
5530	CYP7A1	ENST00000301645	p.H136Q	c.408	0.028242273	0	1
5530	CYP7A1	ENST00000301645	p.S258R	c.774	0.028242273	5.146	1
5531	QKI	ENST00000361752	p.Y57H	c.169	0.130878252	0	1
5531	QKI	ENST00000361752	p.Q112P	c.335	0.055525041	4.281	1
5531	QKI	ENST00000361752	p.E174K	c.520	0.08352575	3.654	1
5532	CPA1	ENST00000011292	p.R181L	c.542	0.136313467	2.875	1
5532	CPA1	ENST00000011292	p.R234H	c.701	0.136313467	0	1
5533	RTF1	ENST00000389629	p.R401W	c.1201	0.072745408	3.781	1
5533	RTF1	ENST00000389629	p.F447I	c.1339	0.072745408	0	1
5534	TPRKB	ENST00000318190	p.L42M	c.124	0.077428044	3.691	1
5534	TPRKB	ENST00000318190	p.L145V	c.433	0.077428044	0	1
5535	RHOC	ENST00000369638	p.D120N	c.358	0.080772052	3.63	1
5535	RHOC	ENST00000369638	p.K162N	c.486	0.080772052	0	1
5536	DPYS	ENST00000351513	p.W360L	c.1079	0.019478144	5.682	1
5536	DPYS	ENST00000351513	p.D407N	c.1219	0.019478144	0	1
5537	NCAM2	ENST00000400546	p.K643R	c.1928	0.027988927	0	1
5537	NCAM2	ENST00000400546	p.Y674C	c.2021	0.027988927	5.159	1
5538	GSTM2	ENST00000369831	p.D106N	c.316	0.016827912	6.893	1
5538	GSTM2	ENST00000369831	p.V163I	c.487	1.008413956	0	1
5538	GSTM2	ENST00000369831	p.V163A	c.488	1.008413956	0	1
5539	CR1	ENST00000367052	p.G1343R	c.4027	1.016345077	0	1
5539	CR1	ENST00000367052	p.G1343E	c.4028	1.016345077	0	1
5539	CR1	ENST00000367052	p.R1369S	c.4105	0.032690154	5.935	1
5540	FLNC	ENST00000325888	p.V571M	c.1711	0.056016669	0	1
5540	FLNC	ENST00000325888	p.R650P	c.1949	0.056016669	4.158	1
5541	C5	ENST00000223642	p.R835Q	c.2504	0.065652784	0	1
5541	C5	ENST00000223642	p.P931S	c.2791	0.065652784	3.929	1

5542	NFATC2	ENST00000396009	p.K497E	c.1489	0.008149911	0	1
5542	NFATC2	ENST00000396009	p.I518T	c.1553	0.008149911	6.939	1
5543	POLK	ENST00000241436	p.D109N	c.325	0.150308656	2.734	1
5543	POLK	ENST00000241436	p.N330D	c.988	0.150308656	0	1
5544	PTPRG	ENST00000474889	p.P85A	c.253	0.022235367	0	1
5544	PTPRG	ENST00000474889	p.R311H	c.932	0.022235367	5.491	1
5545	GUCY1B3	ENST00000502959	p.K437R	c.1310	0.039885274	4.648	1
5545	GUCY1B3	ENST00000502959	p.P508L	c.1523	0.039885274	0	1
5547	TLR8	ENST00000311912	p.F260L	c.780	0.010679589	6.549	1
5547	TLR8	ENST00000311912	p.Q302E	c.904	0.010679589	0	1
5548	MGAM	ENST00000475668	p.G1430E	c.4289	0.090370768	3.468	1
5548	MGAM	ENST00000475668	p.L1462V	c.4384	0.090370768	0	1
5549	MSH6	ENST00000234420	p.E1254in_frame_del	c.3759_3761	0.13221887	0	1
5549	MSH6	ENST00000234420	p.R1331Q	c.3992	0.13221887	2.919	1
5550	NXF1	ENST00000532297	p.R344Q	c.1031	0.070218744	3.832	1
5550	NXF1	ENST00000532297	p.R307W	c.919	0.070218744	0	1
5551	DNMT3A	ENST00000321117	p.G685E	c.2054	0.01053959	8.153	1
5551	DNMT3A	ENST00000321117	p.R729W	c.2185	2.003513197	0	1
5551	DNMT3A	ENST00000321117	p.R729Q	c.2186	2.003513197	0	2
5552	RALGPS1	ENST00000259351	p.R96Q	c.287	0.031752192	0	1
5552	RALGPS1	ENST00000259351	p.I268L	c.802	0.031752192	4.977	1
5553	BROX	ENST00000340934	p.P206N	c.616_617	0.011117683	0	1
5553	BROX	ENST00000340934	p.L261V	c.781	0.011117683	6.491	1
5554	EXOSC8	ENST00000389704	p.N55K	c.165	0.00221727	8.817	1
5554	EXOSC8	ENST00000389704	p.S90L	c.269	0.00221727	0	1
5555	CNOT1	ENST00000317147	p.P906S	c.2716	0.016209687	0	1
5555	CNOT1	ENST00000317147	p.M950I	c.2850	0.016209687	5.947	1
5556	ADH1A	ENST00000209668	p.R38C	c.112	0.050485049	0	1
5556	ADH1A	ENST00000209668	p.V74M	c.220	0.050485049	4.308	1
5557	FN1	ENST00000354785	p.S739F	c.2216	0.130488991	0	1
5557	FN1	ENST00000354785	p.L803M	c.2407	0.130488991	2.938	1
5558	HBD	ENST00000380299	p.V114L	c.340	0.064838746	3.947	1
5558	HBD	ENST00000380299	p.K18N	c.54	0.064838746	0	1
5559	UBE2Q1	ENST00000292211	p.S249L	c.746	0.01268265	7.301	1
5559	UBE2Q1	ENST00000292211	p.E277K	c.829	1.006341325	0	2
5560	CRYGD	ENST00000264376	p.N125K	c.375	0.164140141	0	1
5560	CRYGD	ENST00000264376	p.D150E	c.450	0.164140141	2.607	1
5561	QSOX1	ENST00000367602	p.R344L	c.1031	0.041521432	0	1
5561	QSOX1	ENST00000367602	p.L384P	c.1151	0.041521432	4.59	1
5562	ENO1	ENST00000234590	p.A74V	c.221	0.016550286	0	1
5562	ENO1	ENST00000234590	p.I3V	c.7	0.016550286	5.917	1
5563	CYP27A1	ENST00000258415	p.N519S	c.1556	0.037447157	0	1
5563	CYP27A1	ENST00000258415	p.A206T	c.616	0.037447157	4.739	1
5564	PDK3	ENST00000441463	p.A127T	c.379	0.025365299	5.301	1
5564	PDK3	ENST00000441463	p.F324L	c.970	0.025365299	0	1
5565	GRIA2	ENST00000296526	p.G84R	c.250	0.0465847	0	1
5565	GRIA2	ENST00000296526	p.Q28H	c.84	0.0465847	4.424	1
5566	RERG	ENST00000256953	p.R70K	c.209	0.068298609	0	1
5566	RERG	ENST00000256953	p.L98R	c.293	0.068298609	3.872	1

5567	PTPRF	ENST00000359947	p.N921K	c.2763	0.009565128	6.708	1
5567	PTPRF	ENST00000359947	p.D970H	c.2908	0.009565128	0	1
5568	TRNT1	ENST00000251607	p.D152Y	c.454	0.008138621	6.941	1
5568	TRNT1	ENST00000251607	p.E241Q	c.721	0.008138621	0	1
5569	PTRH2	ENST00000393038	p.M67I	c.201	0.03184035	0	1
5569	PTRH2	ENST00000393038	p.A89V	c.266	0.03184035	4.973	1
5570	OTUB2	ENST00000203664	p.K94R	c.281	0.033169475	4.914	1
5570	OTUB2	ENST00000203664	p.L137V	c.409	0.033169475	0	1
5571	ACTN2	ENST00000542672	p.R442L	c.1325	0.005406835	0	1
5571	ACTN2	ENST00000542672	p.E520K	c.1558	0.005406835	7.531	1
5572	NFKB1	ENST00000226574	p.R57C	c.169	0.03569832	4.808	1
5572	NFKB1	ENST00000226574	p.A245T	c.733	0.03569832	0	1
5573	RPSA	ENST00000443003	p.K11R	c.32	0.155286035	3.687	1
5573	RPSA	ENST00000443003	p.R196C	c.586	1.077643018	0	1
5573	RPSA	ENST00000443003	p.R196H	c.587	1.077643018	0	1
5574	CAND1	ENST00000545606	p.C942Y	c.2825	0.118175265	0	1
5574	CAND1	ENST00000545606	p.Y980N	c.2938	0.118175265	3.081	1
5576	MC4R	ENST00000299766	p.D37N	c.109	0.028537445	0	1
5576	MC4R	ENST00000299766	p.A114V	c.341	0.028537445	5.131	1
5577	TEK	ENST00000380036	p.G292S	c.874	0.157453747	0	1
5577	TEK	ENST00000380036	p.R325H	c.974	0.157453747	2.667	1
5578	ICAM1	ENST00000264832	p.Q257H	c.771	0.008722758	0	1
5578	ICAM1	ENST00000264832	p.R287Q	c.860	0.008722758	6.841	1
5579	PRDX2	ENST00000301522	p.L45V	c.133	0.003079688	8.343	1
5579	PRDX2	ENST00000301522	p.G94E	c.281	0.003079688	0	1
5580	C6	ENST00000263413	p.K387N	c.1161	0.16539643	2.596	1
5580	C6	ENST00000263413	p.D558N	c.1672	0.16539643	0	1
5581	TYW5	ENST00000354611	p.F137L	c.411	0.010964623	6.511	1
5581	TYW5	ENST00000354611	p.F228L	c.682	0.010964623	0	1
5582	FBXL3	ENST00000355619	p.L189V	c.565	0.007114608	7.135	1
5582	FBXL3	ENST00000355619	p.L217I	c.649	0.007114608	0	1
5583	GNB1	ENST00000378609	p.K57T	c.170	0.014268723	6.131	1
5583	GNB1	ENST00000378609	p.S316G	c.946	0.014268723	0	1
5584	HMGCR	ENST00000287936	p.S580R	c.1740	0.015854102	5.979	1
5584	HMGCR	ENST00000287936	p.R840Q	c.2519	0.015854102	0	1
5586	CYP7A1	ENST00000301645	p.L346F	c.1038	0.068062313	3.877	1
5586	CYP7A1	ENST00000301645	p.I459F	c.1375	0.068062313	0	1
5587	CYP21A2	ENST00000418967	p.R342W	c.1024	0.054221168	0	1
5587	CYP21A2	ENST00000418967	p.E321K	c.961	0.054221168	4.205	1
5588	SNRNP200	ENST00000323853	p.V1949F	c.5845	0.013193764	6.244	1
5588	SNRNP200	ENST00000323853	p.A2112T	c.6334	0.013193764	0	1
5589	L3MBTL3	ENST00000361794	p.K506E	c.1516	0.108894274	3.199	1
5589	L3MBTL3	ENST00000361794	p.H528Y	c.1582	0.108894274	0	1
5590	TBC1D22A	ENST00000337137	p.I334V	c.1000	0.003634569	8.104	1
5590	TBC1D22A	ENST00000337137	p.K297N	c.891	0.003634569	0	1
5591	USP14	ENST00000261601	p.A200V	c.599	0.010117523	0	1
5591	USP14	ENST00000261601	p.R330Q	c.989	0.010117523	6.627	1
5593	ABCB10	ENST00000344517	p.S583Y	c.1748	0.006350122	0	1
5593	ABCB10	ENST00000344517	p.Q621K	c.1861_1860	0.006350122	7.299	1

5594 CHKA	ENST00000265689	p.F98C	c.293	0.013480334	0	1
5594 CHKA	ENST00000265689	p.E175D	c.525	0.013480334	6.213	1
5595 CLIC2	ENST00000369449	p.S169F	c.506	0.200684347	3.317	1
5595 CLIC2	ENST00000369449	p.R214C	c.640	1.100342174	0	1
5595 CLIC2	ENST00000369449	p.R214H	c.641	1.100342174	0	1
5596 DPYSL3	ENST00000343218	p.E474D	c.1422	0.015832139	5.981	1
5596 DPYSL3	ENST00000343218	p.S535F	c.1604	0.015832139	0	1
5597 PHF6	ENST00000394292	p.C293S	c.878	0.009868182	6.663	1
5597 PHF6	ENST00000394292	p.K300N	c.900	0.097328086	3.361	1
5597 PHF6	ENST00000394292	p.N329Y	c.985	0.107196268	0	1
5598 RRM2	ENST00000360566	p.E207Q	c.619	0.00964502	0	1
5598 RRM2	ENST00000360566	p.R284H	c.851	0.00964502	6.696	1
5600 GCKR	ENST00000264717	p.R478L	c.1433	0.01283298	0	1
5600 GCKR	ENST00000264717	p.K267N	c.801	0.01283298	6.284	1
5601 PYGM	ENST00000164139	p.V60M	c.178	0.101884042	0	1
5601 PYGM	ENST00000164139	p.T99I	c.296	0.101884042	3.295	1
5602 S100A1	ENST00000368698	p.K81N	c.243	0.375009747	0	1
5602 S100A1	ENST00000368698	p.D124N	c.370	0.375009747	1.415	1
5603 SEC24A	ENST00000398844	p.V996L	c.2986	0.056250121	0	1
5603 SEC24A	ENST00000398844	p.E1058K	c.3172	0.056250121	4.152	1
5604 ERBB3	ENST00000267101	p.V593A	c.1778	0.018198962	0	1
5604 ERBB3	ENST00000267101	p.V264A	c.791	0.018198962	5.78	1
5605 MMP10	ENST00000279441	p.Y115C	c.344	0.161096829	2.634	1
5605 MMP10	ENST00000279441	p.L151Q	c.452	0.161096829	0	1
5606 HECW1	ENST00000395891	p.A954V	c.2861	0.091188772	3.455	1
5606 HECW1	ENST00000395891	p.F997Y	c.2990	0.091188772	0	1
5607 EPB41L3	ENST00000342933	p.F151S	c.452	0.068488235	0	1
5607 EPB41L3	ENST00000342933	p.K187T	c.560	0.068488235	3.868	1
5609 ASRGL1	ENST00000415229	p.G66R	c.196	0.035896824	0	1
5609 ASRGL1	ENST00000415229	p.R147C	c.439	0.035896824	4.8	1
5610 HCK	ENST00000375852	p.H93Q	c.279	0.178872065	0	1
5610 HCK	ENST00000375852	p.Y127F	c.380	0.178872065	2.483	1
5611 FLT1	ENST00000282397	p.S1014P	c.3040	1.008999122	0	1
5611 FLT1	ENST00000282397	p.S1014F	c.3041	1.008999122	0	1
5611 FLT1	ENST00000282397	p.R1146I	c.3437	0.017998244	6.796	1
5612 XCL1	ENST00000367818	p.T49S	c.146	0.024637505	0	1
5612 XCL1	ENST00000367818	p.V81I	c.241	0.024637505	5.343	1
5613 HDC	ENST00000267845	p.G68V	c.203	0.063504384	0	1
5613 HDC	ENST00000267845	p.S109I	c.326	0.063504384	3.977	1
5614 MTERFD2	ENST00000391980	p.D101H	c.301	0.003690418	8.082	1
5614 MTERFD2	ENST00000391980	p.S129L	c.386	0.003690418	0	1
5615 LRP6	ENST00000261349	p.R1093L	c.3279_3278	0.010322956	6.598	1
5615 LRP6	ENST00000261349	p.M1232V	c.3694	0.010322956	0	1
5616 CYP2C9	ENST00000260682	p.V38A	c.113	0.017579039	5.83	1
5616 CYP2C9	ENST00000260682	p.F69V	c.205	0.017579039	0	1
5617 EPHB4	ENST00000358173	p.A120V	c.359	0.066384949	0	1
5617 EPHB4	ENST00000358173	p.Y175C	c.524	0.066384949	3.913	1
5618 KCNU1	ENST00000399881	p.S393C	c.1178	0.011581774	0	1
5618 KCNU1	ENST00000399881	p.S435F	c.1304	0.011581774	6.432	1

5619 SYMPK	ENST00000245934	p.E60K	c.178	0.007614685	7.037	1
5619 SYMPK	ENST00000245934	p.R102Q	c.305	0.007614685	0	1
5620 RGS16	ENST00000367558	p.A81T	c.241	0.00572305	8.449	1
5620 RGS16	ENST00000367558	p.S174L	c.521	1.002861525	0	2
5621 NCKAP1	ENST00000360982	p.D622N	c.1864	0.012753173	0	1
5621 NCKAP1	ENST00000360982	p.R721C	c.2161	0.012753173	6.293	1
5622 PGD	ENST00000270776	p.P419L	c.1256	0.013048249	0	1
5622 PGD	ENST00000270776	p.L290V	c.868	0.013048249	6.26	1
5623 CUL3	ENST00000264414	p.K349N	c.1047	0.021717472	6.525	1
5623 CUL3	ENST00000264414	p.L321F	c.963	1.010858736	0	2
5624 ATG4A	ENST00000372232	p.P190L	c.569	1.009545259	0	2
5624 ATG4A	ENST00000372232	p.S214C	c.641	0.019090517	6.711	1
5625 SERPIND1	ENST00000406799	p.Y403C	c.1208	0.012788581	7.289	1
5625 SERPIND1	ENST00000406799	p.R492K	c.1475	1.00639429	0	1
5625 SERPIND1	ENST00000406799	p.R492T	c.1475	1.00639429	0	1
5626 PHGDH	ENST00000369409	p.F222C	c.665	0.007921558	6.98	1
5626 PHGDH	ENST00000369409	p.R247M	c.739_740	0.007921558	0	1
5627 RAB30	ENST00000533486	p.Y89C	c.266	0.053215857	0	1
5627 RAB30	ENST00000533486	p.L119S	c.356	0.053215857	4.232	1
5628 CPB2	ENST00000181383	p.S334C	c.1001	0.028164077	0	1
5628 CPB2	ENST00000181383	p.G356D	c.1067	0.028164077	5.15	1
5629 PRKCI	ENST00000295797	p.P351S	c.1051	0.013801798	6.179	1
5629 PRKCI	ENST00000295797	p.N383I	c.1148	0.013801798	0	1
5630 HRSP12	ENST00000520507	p.R48M	c.143	0.017493951	6.837	1
5632 ERBB4	ENST00000342788	p.T703K	c.2108	0.210224104	3.25	1
5632 ERBB4	ENST00000342788	p.D991N	c.2971	1.105112052	0	2
5633 STK4	ENST00000372806	p.D443N	c.1327	0.019012059	0	1
5633 STK4	ENST00000372806	p.I477K	c.1430	0.009420374	6.73	1
5633 STK4	ENST00000372806	p.K480M	c.1439	0.009591685	6.704	1
5634 CCBL1	ENST00000436267	p.G162S	c.484	0.012090352	0	1
5634 CCBL1	ENST00000436267	p.L185P	c.554	0.012090352	6.37	1
5635 PSPC1	ENST00000338910	p.G197E	c.590	0.013878544	0	1
5635 PSPC1	ENST00000338910	p.R228H	c.683	0.013878544	6.171	1
5636 NET1	ENST00000355029	p.R175W	c.523	0.078726874	3.667	1
5636 NET1	ENST00000355029	p.H328Y	c.982	0.078726874	0	1
5637 TNNC1	ENST00000232975	p.G110V	c.329	0.044470733	5.491	1
5637 TNNC1	ENST00000232975	p.R147C	c.439	1.022235367	0	1
5637 TNNC1	ENST00000232975	p.R147H	c.440	1.022235367	0	1
5638 CYP27A1	ENST00000258415	p.A437V	c.1310	0.065926395	3.923	1
5638 CYP27A1	ENST00000258415	p.P112Q	c.335	0.065926395	0	1
5639 HEXB	ENST00000261416	p.M65I	c.195	0.092654188	3.432	1
5639 HEXB	ENST00000261416	p.N190D	c.568	0.092654188	0	1
5640 PC	ENST00000393958	p.Y503N	c.1507	0.005847355	7.418	1
5640 PC	ENST00000393958	p.R583H	c.1748	0.011985422	0	1
5640 PC	ENST00000393958	p.A615T	c.1843	0.006138067	7.348	1
5641 PRKG1	ENST00000373980	p.E254D	c.762	0.096388177	3.375	1
5641 PRKG1	ENST00000373980	p.T327N	c.980	0.096388177	0	1
5642 GSPT1	ENST00000563468	p.L304P	c.911	0.024147205	5.372	1
5642 GSPT1	ENST00000563468	p.L332F	c.994	0.024147205	0	1

5643 FCN1	ENST00000371806	p.S202R	c.606	0.121345429	0	1
5643 FCN1	ENST00000371806	p.P325H	c.974	0.060306298	4.142	1
5643 FCN1	ENST00000371806	p.A326T	c.976	0.068368984	3.95	1
5644 SHBG	ENST00000380450	p.E106Q	c.316	0.068773663	3.862	1
5644 SHBG	ENST00000380450	p.D139V	c.416	0.068773663	0	1
5645 USP11	ENST00000218348	p.A160T	c.478	0.004521446	7.789	1
5645 USP11	ENST00000218348	p.R181C	c.541	0.004521446	0	1
5646 HNRNPF	ENST00000337970	p.F130L	c.390	0.230366047	2.118	1
5646 HNRNPF	ENST00000337970	p.I176M	c.528	0.230366047	0	1
5647 CRAT	ENST00000318080	p.R443M	c.1328	0.055475709	0	1
5647 CRAT	ENST00000318080	p.R82H	c.245	0.055475709	4.172	1
5648 PTPN11	ENST00000351677	p.H114Y	c.340	1.093934419	0	2
5648 PTPN11	ENST00000351677	p.L136H	c.407	0.202004281	3.437	1
5648 PTPN11	ENST00000351677	p.Q214K	c.640	0.020538603	9.287	1
5649 MIOX	ENST00000216075	p.E75K	c.223	0.013611784	0	1
5649 MIOX	ENST00000216075	p.R268Q	c.803	0.013611784	6.199	1
5650 CTTN	ENST00000376561	p.D450N	c.1348	0.011525715	0	1
5650 CTTN	ENST00000376561	p.G491R	c.1471	0.011525715	6.439	1
5651 OXSM	ENST00000280701	p.C402W	c.1206	0.089188407	0	1
5651 OXSM	ENST00000280701	p.F438C	c.1313	0.089188407	3.487	1
5652 CYP1A1	ENST00000567032	p.R134H	c.401	1.00206592	0	2
5652 CYP1A1	ENST00000567032	p.I281N	c.842	0.00413184	8.919	1
5653 MARK1	ENST00000366917	p.M339I	c.1017	0.092141826	3.44	1
5653 MARK1	ENST00000366917	p.V361D	c.1082	0.092141826	0	1
5654 HSD17B4	ENST00000504811	p.D119N	c.355	0.077481731	0	1
5654 HSD17B4	ENST00000504811	p.M163T	c.488	0.077481731	3.69	1
5655 GPT2	ENST00000340124	p.P391S	c.1171	0.136313467	0	1
5655 GPT2	ENST00000340124	p.R134H	c.401	0.136313467	2.875	1
5656 ROCK1	ENST00000399799	p.M128I	c.384	0.092654188	3.432	1
5656 ROCK1	ENST00000399799	p.D216Y	c.646	0.092654188	0	1
5657 ENPEP	ENST00000265162	p.N734K	c.2202	0.030500993	0	1
5657 ENPEP	ENST00000265162	p.P779L	c.2336	0.030500993	5.035	1
5658 OPRK1	ENST00000265572	p.P289L	c.866	0.183010712	2.45	1
5658 OPRK1	ENST00000265572	p.S311N	c.932	0.183010712	0	1
5659 HK1	ENST00000448642	p.V551I	c.1651	0.079660039	0	1
5659 HK1	ENST00000448642	p.M698I	c.2094	0.079660039	3.65	1
5660 AP1S1	ENST00000337619	p.R53M	c.158	0.002171639	0	1
5660 AP1S1	ENST00000337619	p.S24L	c.71	0.002171639	8.847	1
5661 LRBA	ENST00000357115	p.K2121N	c.6363	0.014874655	0	1
5661 LRBA	ENST00000357115	p.L2328M	c.6982	0.014874655	6.071	1
5662 FHIT	ENST00000476844	p.V38A	c.113	0.156583055	2.675	1
5662 FHIT	ENST00000476844	p.V97I	c.289	0.156583055	0	1
5663 NCK1	ENST00000481752	p.Y117C	c.350	0.093298649	3.422	1
5663 NCK1	ENST00000481752	p.F155L	c.465	0.093298649	0	1
5664 ACO1	ENST00000379923	p.S553F	c.1658	0.00836163	6.902	1
5664 ACO1	ENST00000379923	p.L254V	c.760	0.00836163	0	1
5665 PLXNC1	ENST00000258526	p.R1218Q	c.3653	0.00989558	6.659	1
5665 PLXNC1	ENST00000258526	p.K1244R	c.3731	0.00989558	0	1
5666 PARK2	ENST00000366898	p.A397V	c.1190	0.070735431	0	1

5666 PARK2	ENST00000366898	p.T237A	c.709	0.046278501	4.47	1
5666 PARK2	ENST00000366898	p.T240M	c.719	0.026768358	5.287	1
5667 USP2	ENST00000260187	p.R448Q	c.1343	0.041636713	0	1
5667 USP2	ENST00000260187	p.P495S	c.1483	0.041636713	4.586	1
5668 SMG7	ENST00000507469	p.K77E	c.229	0.002573594	8.602	1
5668 SMG7	ENST00000507469	p.R163Q	c.488	0.002573594	0	1
5669 IL6	ENST00000420258	p.G117S	c.349	0.019818616	0	1
5669 IL6	ENST00000420258	p.A194G	c.581	0.019818616	5.657	1
5670 ADAM8	ENST00000445355	p.E335K	c.1003	0.004157696	0	1
5670 ADAM8	ENST00000445355	p.V288I	c.862	0.004157696	7.91	1
5671 ERBB3	ENST00000267101	p.M91I	c.273	1.009888723	0	2
5671 ERBB3	ENST00000267101	p.V119I	c.355	0.019777447	6.66	1
5672 SUPT5H	ENST00000432763	p.R711H	c.2132	1.224844578	0	2
5672 SUPT5H	ENST00000432763	p.V753A	c.2258	0.449689156	2.153	1
5673 PNP	ENST00000361505	p.G140C	c.418	0.008710674	6.843	1
5673 PNP	ENST00000361505	p.E201V	c.602	0.008710674	0	1
5674 MARK1	ENST00000366917	p.D283N	c.847	0.010731533	6.542	1
5674 MARK1	ENST00000366917	p.L288M	c.862	0.002989252	8.386	1
5674 MARK1	ENST00000366917	p.M311L	c.931	0.013720785	0	1
5675 CBLB	ENST00000264122	p.N69S	c.206	0.016277241	5.941	1
5675 CBLB	ENST00000264122	p.D267N	c.799	0.016277241	0	1
5676 NUP107	ENST0000029179	p.D825N	c.2473	0.022860488	5.451	1
5676 NUP107	ENST0000029179	p.R885C	c.2653	0.022860488	0	1
5677 NAT2	ENST00000286479	p.G90E	c.269	0.138312169	3.854	1
5677 NAT2	ENST00000286479	p.T193M	c.578	1.069156085	0	2
5678 ARID1B	ENST00000367148	p.K1099N	c.3297	0.051724801	0	1
5678 ARID1B	ENST00000367148	p.L1130V	c.3388	0.051724801	4.273	1
5679 DCUN1D3	ENST00000563934	p.R202L	c.605	0.014308339	0	1
5679 DCUN1D3	ENST00000563934	p.F227V	c.679	0.014308339	6.127	1
5680 CA6	ENST00000377436	p.Y71N	c.211	0.091695834	3.447	1
5680 CA6	ENST00000377436	p.R96H	c.287	0.091695834	0	1
5681 RRM1	ENST00000300738	p.L157F	c.471	0.008801713	6.828	1
5681 RRM1	ENST00000300738	p.L205F	c.613	0.008801713	0	1
5682 CUL3	ENST00000264414	p.L77P	c.230	0.013792234	0	1
5682 CUL3	ENST00000264414	p.N138D	c.412	0.013792234	6.18	1
5683 SERPINC1	ENST00000367698	p.G411V	c.1232	0.026774436	5.223	1
5683 SERPINC1	ENST00000367698	p.S169Y	c.506	0.026774436	0	1
5684 POLB	ENST00000265421	p.E71K	c.211	0.121666172	3.039	1
5684 POLB	ENST00000265421	p.D17N	c.49	0.121666172	0	1
5685 A2M	ENST00000318602	p.L965R	c.2894	0.048160694	4.376	1
5685 A2M	ENST00000318602	p.F1248L	c.3744	0.048160694	0	1
5686 SUFU	ENST00000369902	p.T411M	c.1232	0.030862527	5.018	1
5686 SUFU	ENST00000369902	p.E437K	c.1309	0.030862527	0	1
5687 SYK	ENST00000375754	p.R42H	c.125	0.066846693	3.903	1
5687 SYK	ENST00000375754	p.F17H	c.49_50	0.066846693	0	1
5688 HUS1	ENST00000436444	p.H109N	c.325	0.006258358	7.32	1
5688 HUS1	ENST00000436444	p.P134L	c.401	0.006258358	0	1
5689 MTERF	ENST00000351870	p.F182L	c.544	0.094469996	3.404	1
5689 MTERF	ENST00000351870	p.L208V	c.622	0.094469996	0	1

5690 RPGR	ENST00000378505	p.W194C	c.582	0.013012121	6.264	1
5690 RPGR	ENST00000378505	p.S298R	c.892	0.013012121	0	1
5691 DDX3X	ENST00000399959	p.D350N	c.1048	0.014239083	0	1
5691 DDX3X	ENST00000399959	p.A383T	c.1147	0.014239083	6.134	1
5692 DRD2	ENST00000355319	p.D178Y	c.532	0.047366143	0	1
5692 DRD2	ENST00000355319	p.R219H	c.656	0.047366143	4.4	1
5693 FAP	ENST00000188790	p.A128T	c.382	0.065289735	3.937	1
5693 FAP	ENST00000188790	p.P149S	c.445	0.065289735	0	1
5694 TTK	ENST00000369798	p.F540L	c.1620	0.027110584	0	1
5694 TTK	ENST00000369798	p.C604F	c.1811	0.027110584	5.205	1
5695 RYR2	ENST00000360064	p.L128M	c.382	0.011265069	6.472	1
5695 RYR2	ENST00000360064	p.V201G	c.602	0.011265069	0	1
5698 PUS10	ENST00000316752	p.H34D	c.100	0.105330854	0	1
5698 PUS10	ENST00000316752	p.W188L	c.563	0.105330854	3.247	1
5699 SIAH1	ENST00000568007	p.R215C	c.643	0.016435965	5.927	1
5699 SIAH1	ENST00000568007	p.P240S	c.718	0.016435965	0	1
5700 ADAT2	ENST00000237283	p.E38K	c.112	0.00283979	8.46	1
5700 ADAT2	ENST00000237283	p.R59K	c.176	0.00283979	0	1
5701 RYR2	ENST00000360064	p.H504Q	c.1512	0.157562924	2.666	1
5701 RYR2	ENST00000360064	p.Y532H	c.1594	0.157562924	0	1
5702 UBE2L6	ENST00000287156	p.P45A	c.133	0.02373237	5.397	1
5702 UBE2L6	ENST00000287156	p.D124E	c.372	0.02373237	0	1
5703 SNUPN	ENST00000371091	p.V165M	c.493	0.010591128	0	1
5703 SNUPN	ENST00000371091	p.W318S	c.953	0.010591128	6.561	1
5704 ITGA2B	ENST00000262407	p.R480I	c.1439	0.018504244	5.756	1
5704 ITGA2B	ENST00000262407	p.E92K	c.274	0.018504244	0	1
5705 PNLIPRP1	ENST00000358834	p.L45I	c.133	0.022097087	0	1
5705 PNLIPRP1	ENST00000358834	p.R141P	c.422	0.022097087	5.5	1
5706 ARHGEF11	ENST00000368194	p.I826M	c.2478	0.005551141	0	1
5706 ARHGEF11	ENST00000368194	p.F872L	c.2616	0.005551141	7.493	1
5707 GSTZ1	ENST00000553586	p.T34M	c.101	0.027431931	0	1
5707 GSTZ1	ENST00000553586	p.I8N	c.23	0.027431931	5.188	1
5708 ANKRD27	ENST00000306065	p.L569P	c.1706	0.046941248	0	1
5708 ANKRD27	ENST00000306065	p.T591I	c.1772	0.046941248	4.413	1
5709 CPN1	ENST00000370418	p.S360Y	c.1079	0.031995216	4.966	1
5709 CPN1	ENST00000370418	p.A389S	c.1165	0.031995216	0	1
5710 PRKCQ	ENST00000263125	p.E571K	c.1711	0.012023494	6.378	1
5710 PRKCQ	ENST00000263125	p.L610P	c.1829	0.012023494	0	1
5711 TALDO1	ENST00000319006	p.P46T	c.136	0.090055768	5.058	1
5711 TALDO1	ENST00000319006	p.A109T	c.325	2.030018589	0	3
5712 TCEB1	ENST00000522337	p.P49Q	c.146	0.014598865	6.098	1
5712 TCEB1	ENST00000522337	p.S86G	c.256	0.014598865	0	1
5713 KLC2	ENST00000417856	p.R348W	c.1042	0.004534	8.785	1
5713 KLC2	ENST00000417856	p.A385V	c.1154	1.002267	0	2
5714 ADORA2A	ENST00000337539	p.L95F	c.283	0.056445407	0	1
5714 ADORA2A	ENST00000337539	p.P285L	c.854	0.056445407	4.147	1
5715 HMGCS2	ENST00000369406	p.L394V	c.1180	0.006693609	7.223	1
5715 HMGCS2	ENST00000369406	p.A58V	c.173	0.006693609	0	1
5716 NSD1	ENST00000439151	p.I1907V	c.5719	0.028203148	5.148	1

5716 NSD1	ENST00000439151	p.F1967C	c.5900	0.028203148	0	1
5717 ELAVL1	ENST00000351593	p.R46K	c.137	0.025952188	0	1
5717 ELAVL1	ENST00000351593	p.E102D	c.306	0.025952188	5.268	1
5718 HBE1	ENST00000380237	p.T39P	c.115	0.002499751	8.644	1
5718 HBE1	ENST00000380237	p.K60E	c.178	0.002499751	0	1
5719 CBS	ENST00000352178	p.T428I	c.1283	0.026793001	0	1
5719 CBS	ENST00000352178	p.E292K	c.874	0.026793001	5.222	1
5720 EZR	ENST00000337147	p.R81W	c.241	0.170400326	2.553	1
5720 EZR	ENST00000337147	p.L104F	c.310	0.170400326	0	1
5721 HARS	ENST00000504156	p.R405Q	c.1214	1.013527134	0	2
5721 HARS	ENST00000504156	p.V72L	c.214	0.027054268	6.208	1
5722 TLR3	ENST00000296795	p.K418Q	c.1252	0.119244944	0	1
5722 TLR3	ENST00000296795	p.N441T	c.1322	0.119244944	3.068	1
5723 SENP7	ENST00000394095	p.S704L	c.2111	0.094208432	0	1
5723 SENP7	ENST00000394095	p.K964E	c.2890	0.094208432	3.408	1
5724 HAAO	ENST00000294973	p.H47Y	c.139	0.044316876	0	1
5724 HAAO	ENST00000294973	p.E105K	c.313	0.044316876	4.496	1
5725 WRN	ENST00000298139	p.E975K	c.2923	0.160428237	2.64	1
5725 WRN	ENST00000298139	p.A1042P	c.3124	0.160428237	0	1
5726 MMP1	ENST00000315274	p.E402K	c.1204	0.0217476	5.523	1
5726 MMP1	ENST00000315274	p.E333K	c.997	0.0217476	0	1
5727 MCEE	ENST00000244217	p.L69P	c.207_206	0.006142323	0	1
5727 MCEE	ENST00000244217	p.E126K	c.376	0.006142323	7.347	1
5728 ACVR2A	ENST00000241416	p.A381V	c.1142	0.018376426	0	1
5728 ACVR2A	ENST00000241416	p.A466T	c.1396	0.018376426	5.766	1
5729 CXCL10	ENST00000306602	p.N37H	c.109	0.200128703	0	1
5729 CXCL10	ENST00000306602	p.S79L	c.236	0.200128703	2.321	1
5730 TAB1	ENST00000216160	p.Y367C	c.1100	0.083042863	3.59	1
5730 TAB1	ENST00000216160	p.S193L	c.578	0.083042863	0	1
5731 GM2A	ENST00000357164	p.C106R	c.316	0.116790918	4.098	1
5731 GM2A	ENST00000357164	p.R130C	c.388	1.058395459	0	1
5731 GM2A	ENST00000357164	p.R130H	c.389	1.058395459	0	1
5732 HAAO	ENST00000294973	p.V226E	c.677	0.030798417	5.021	1
5732 HAAO	ENST00000294973	p.G259W	c.775	0.030798417	0	1
5733 CASC5	ENST00000346991	p.P2192S	c.6574	0.007604136	0	1
5733 CASC5	ENST00000346991	p.A2273T	c.6817	0.007604136	7.039	1
5734 MET	ENST00000318493	p.S525Y	c.1574	0.106137031	3.236	1
5734 MET	ENST00000318493	p.T618M	c.1853	0.106137031	0	1
5735 EPHA2	ENST00000358432	p.A146V	c.437	0.042159454	4.568	1
5735 EPHA2	ENST00000358432	p.R168H	c.503	0.042159454	0	1
5736 IDUA	ENST00000453894	p.T180S	c.539	0.009671799	6.692	1
5737 INHBA	ENST00000442711	p.W338R	c.1012	0.049617746	4.333	1
5737 INHBA	ENST00000442711	p.D405N	c.1213	0.049617746	0	1
5739 ELMO1	ENST00000442504	p.R569W	c.1705	0.019397305	5.688	1
5739 ELMO1	ENST00000442504	p.E592K	c.1774	0.019397305	0	1
5740 SSRP1	ENST00000278412	p.T209I	c.626	0.132861959	2.912	1
5740 SSRP1	ENST00000278412	p.I274L	c.820	0.132861959	0	1
5741 CAPN9	ENST00000271971	p.E284Q	c.850	0.084143754	3.571	1
5741 CAPN9	ENST00000271971	p.F317L	c.951	0.084143754	0	1

5742 JAK2	ENST00000539801	p.W737L	c.2210	0.026941986	5.214	1
5742 JAK2	ENST00000539801	p.H770L	c.2309	0.026941986	0	1
5743 NUP214	ENST00000451030	p.S308G	c.922	0.008961774	6.802	1
5743 NUP214	ENST00000451030	p.L329F	c.985	0.008961774	0	1
5745 PARP1	ENST00000366794	p.A811T	c.2431	0.019873641	5.653	1
5745 PARP1	ENST00000366794	p.D835N	c.2503	0.019873641	0	1
5746 MEP1B	ENST00000269202	p.D47A	c.140	0.013907433	0	1
5746 MEP1B	ENST00000269202	p.N187T	c.560	0.013907433	6.168	1
5747 TYW5	ENST00000354611	p.R183G	c.547	0.004434539	0	1
5747 TYW5	ENST00000354611	p.R300Q	c.899	0.004434539	7.817	1
5748 SARS	ENST00000369923	p.A348T	c.1042	0.003513197	8.153	1
5748 SARS	ENST00000369923	p.D378Y	c.1132	0.003513197	0	1
5749 PHYH	ENST00000263038	p.A192T	c.574	0.230366047	3.118	1
5749 PHYH	ENST00000263038	p.S279F	c.836	1.115183023	0	2
5750 MYH7	ENST00000355349	p.P687H	c.2060	0.009651708	0	1
5750 MYH7	ENST00000355349	p.R108C	c.322	0.009651708	6.695	1
5751 APP	ENST00000346798	p.A154T	c.460	0.022066475	0	1
5751 APP	ENST00000346798	p.E183Q	c.547	0.022066475	5.502	1
5752 ATG4A	ENST00000372232	p.G135C	c.403	0.019505165	6.68	1
5752 ATG4A	ENST00000372232	p.M185I	c.555	1.009752582	0	2
5753 PTPRO	ENST00000281171	p.N1002S	c.3005	0.088327103	3.501	1
5753 PTPRO	ENST00000281171	p.R1122Q	c.3365	0.088327103	0	1
5754 RYR3	ENST00000389232	p.I2617M	c.7851	0.07982586	0	1
5754 RYR3	ENST00000389232	p.L2791I	c.8371	0.07982586	3.647	1
5755 SCARB2	ENST00000264896	p.S52F	c.155	0.014397878	6.118	1
5755 SCARB2	ENST00000264896	p.R95I	c.284	0.014397878	0	1
5756 LSS	ENST00000397728	p.S149Y	c.446	0.201102093	3.314	1
5756 LSS	ENST00000397728	p.I179L	c.535	1.100551046	0	2
5757 TRAF6	ENST00000348124	p.E369K	c.1105	0.021123607	5.565	1
5757 TRAF6	ENST00000348124	p.P398L	c.1193	0.021123607	0	1
5758 RAB6B	ENST00000285208	p.V90M	c.268	0.027431931	0	1
5758 RAB6B	ENST00000285208	p.G20R	c.58	0.027431931	5.188	1
5759 NCAM1	ENST00000524665	p.R499W	c.1495	1.02664484	0	2
5759 NCAM1	ENST00000524665	p.N537S	c.1610	0.053289681	5.23	1
5760 PRKCA	ENST00000413366	p.L425F	c.1273	0.007839623	6.995	1
5760 PRKCA	ENST00000413366	p.N468K	c.1404	0.007839623	0	1
5761 RGS8	ENST00000258302	p.S74F	c.221	0.024929539	5.326	1
5761 RGS8	ENST00000258302	p.E173V	c.518	0.024929539	0	1
5762 PAPSS1	ENST00000265174	p.V387F	c.1159	0.008943158	0	1
5762 PAPSS1	ENST00000265174	p.V269I	c.805	0.008943158	6.805	1
5763 CSNK1G3	ENST00000395412	p.H154N	c.460	0.098892163	3.338	1
5763 CSNK1G3	ENST00000395412	p.R228T	c.683	0.098892163	0	1
5764 NUP98	ENST00000324932	p.C743R	c.2227	0.008384846	6.898	1
5764 NUP98	ENST00000324932	p.R779M	c.2336	0.008384846	0	1
5765 LIG3	ENST00000378526	p.G706S	c.2116	0.03724008	0	1
5765 LIG3	ENST00000378526	p.Q742R	c.2225	0.03724008	4.747	1
5766 CSF3R	ENST00000440588	p.I48N	c.143	0.015799251	0	1
5766 CSF3R	ENST00000440588	p.G81R	c.241	0.015799251	5.984	1
5767 CDC42BPB	ENST00000361246	p.R351Q	c.1052	0.091378591	0	1

5767 CDC42BPB	ENST00000361246	p.IRLA213in_frame_ins*	c.640_639	0.091378591	3.452	1
5768 GRM5	ENST00000305447	p.A423T	c.1267	0.081277509	3.621	1
5768 GRM5	ENST00000305447	p.N88S	c.263	0.081277509	0	1
5769 ACE	ENST00000290866	p.R858W	c.2572	0.0129312	6.273	1
5769 ACE	ENST00000290866	p.E1211in_frame_del	c.3630_3632	0.0129312	0	1
5770 KSR2	ENST00000339824	p.F677S	c.2030	0.013888167	0	1
5770 KSR2	ENST00000339824	p.D786N	c.2356	0.013888167	6.17	1
5771 BPIFA1	ENST00000375413	p.A148T	c.442	0.004428396	0	1
5771 BPIFA1	ENST00000375413	p.G196D	c.587	0.004428396	7.819	1
5772 PEX3	ENST00000367591	p.F344S	c.1031	0.132310549	3.918	1
5772 PEX3	ENST00000367591	p.R286Q	c.857	1.066155275	0	2
5773 APPL2	ENST00000551662	p.I376M	c.1128	0.007457977	0	1
5773 APPL2	ENST00000551662	p.D332N	c.994	0.007457977	7.067	1
5774 VWF	ENST00000261405	p.A1812T	c.5434	0.010180837	6.618	1
5774 VWF	ENST00000261405	p.R1837Q	c.5510	0.010180837	0	1
5775 DNMBP	ENST00000342239	p.T1036A	c.3106	0.006939272	7.171	1
5775 DNMBP	ENST00000342239	p.F1116L	c.3346	0.006939272	0	1
5776 IL21	ENST00000264497	p.R139K	c.416	0.014864348	6.072	1
5776 IL21	ENST00000264497	p.S162F	c.485	0.014864348	0	1
5777 GALT	ENST00000378842	p.E237Q	c.709	0.006633564	7.236	1
5777 GALT	ENST00000378842	p.E271D	c.813	0.006633564	0	1
5778 NCF4	ENST00000397147	p.R241H	c.722	0.010517969	6.571	1
5779 PABPN1	ENST00000216727	p.A171V	c.512	0.074998211	3.737	1
5779 PABPN1	ENST00000216727	p.V226K	c.676_677	0.074998211	0	1
5780 ATG5	ENST00000343245	p.P186S	c.556	0.243501067	2.038	1
5780 ATG5	ENST00000343245	p.L265I	c.793	0.243501067	0	1
5781 STRADA	ENST00000336174	p.R362C	c.1084	0.006891339	7.181	1
5781 STRADA	ENST00000336174	p.T295S	c.883	0.006891339	0	1
5782 PDZRN3	ENST00000263666	p.A369T	c.1105	0.242658617	2.043	1
5782 PDZRN3	ENST00000263666	p.S278N	c.833	0.242658617	0	1
5783 IFIT2	ENST00000371826	p.R132G	c.394	0.114704985	0	1
5783 IFIT2	ENST00000371826	p.Q15P	c.44	0.114704985	3.124	1
5784 CNOT1	ENST00000317147	p.R1248C	c.3742	0.011557715	0	1
5784 CNOT1	ENST00000317147	p.N1289S	c.3866	0.011557715	6.435	1
5785 IPO13	ENST00000372343	p.S253L	c.758	0.007104752	7.137	1
5785 IPO13	ENST00000372343	p.T304I	c.911	0.007104752	0	1
5786 AOC1	ENST00000416793	p.L36I	c.106	0.075834598	3.721	1
5786 AOC1	ENST00000416793	p.IEML72in_frame_del	c.211_222	0.075834598	0	1
5787 MYOM1	ENST00000356443	p.N1147H	c.3439	0.005843304	0	1
5787 MYOM1	ENST00000356443	p.R1231C	c.3691	0.005843304	7.419	1
5788 CHRNB2	ENST00000368476	p.R106W	c.316	0.030018589	0	1
5788 CHRNB2	ENST00000368476	p.S175L	c.524	0.030018589	5.058	1
5789 TACR1	ENST00000305249	p.T339A	c.1015	0.028975955	5.109	1
5789 TACR1	ENST00000305249	p.R62I	c.185	0.028975955	0	1
5790 IL6R	ENST00000368485	p.V58A	c.173	0.030522142	5.034	1
5790 IL6R	ENST00000368485	p.R80G	c.238	0.030522142	0	1
5791 FTH1	ENST00000273550	p.E62Q	c.184	0.013527134	6.208	1
5791 FTH1	ENST00000273550	p.K144E	c.430	0.013527134	0	1
5792 AQP5	ENST00000293599	p.A98T	c.292	0.005384395	0	1

5792 AQP5	ENST00000293599	p.A193V	c.578	0.005384395	7.537	1
5793 CRYAB	ENST00000227251	p.S138L	c.413	0.052446852	0	1
5793 CRYAB	ENST00000227251	p.R163H	c.488	0.052446852	4.253	1
5794 FOLR1	ENST00000393679	p.D77N	c.229	0.012081974	7.371	1
5794 FOLR1	ENST00000393679	p.R125C	c.373	1.006040987	0	1
5794 FOLR1	ENST00000393679	p.R125H	c.374	1.006040987	0	1
5795 KIF9	ENST00000265529	p.D83N	c.247	0.120825762	0	1
5795 KIF9	ENST00000265529	p.R130H	c.389	0.120825762	3.049	1
5796 RNF31	ENST00000324103	p.T74R	c.221	0.022328033	0	1
5796 RNF31	ENST00000324103	p.V109A	c.326	0.022328033	5.485	1
5797 CES1	ENST00000360526	p.P71L	c.212	0.012976094	6.268	1
5797 CES1	ENST00000360526	p.R200C	c.598	0.012976094	0	1
5798 MAPK13	ENST00000211287	p.V146I	c.436	0.082812939	3.594	1
5798 MAPK13	ENST00000211287	p.F324S	c.971	0.082812939	0	1
5799 KDM4C	ENST00000381309	p.G106S	c.316	0.006407601	0	1
5799 KDM4C	ENST00000381309	p.V130A	c.389	0.006407601	7.286	1
5800 CNTN2	ENST00000331830	p.R362W	c.1084	0.041377778	4.595	1
5800 CNTN2	ENST00000331830	p.G391S	c.1171	0.041377778	0	1
5801 KIR3DL1	ENST00000541392	p.V168I	c.502	0.009303569	0	1
5801 KIR3DL1	ENST00000541392	p.S239N	c.716	0.009303569	6.748	1
5802 DHFR	ENST00000439211	p.R78K	c.233	0.029217975	5.097	1
5802 DHFR	ENST00000439211	p.S120Y	c.359	0.029217975	0	1
5803 CSF2RB	ENST00000406230	p.A387T	c.1159	0.20661258	2.275	1
5803 CSF2RB	ENST00000406230	p.R413M	c.1238	0.20661258	0	1
5804 PTPRR	ENST00000283228	p.N419T	c.1256	0.020249078	5.626	1
5804 PTPRR	ENST00000283228	p.I447V	c.1339	0.020249078	0	1
5805 KLK5	ENST00000391809	p.N173K	c.519	0.143289023	0	1
5805 KLK5	ENST00000391809	p.S260F	c.779	0.143289023	2.803	1
5806 PF4V1	ENST00000226524	p.T49I	c.146	0.010866265	6.524	1
5806 PF4V1	ENST00000226524	p.I85F	c.253	0.010866265	0	1
5807 TUBGCP4	ENST00000260383	p.P134S	c.400	0.006712193	0	1
5807 TUBGCP4	ENST00000260383	p.V168I	c.502	0.006712193	7.219	1
5808 CYP2E1	ENST00000252945	p.D124N	c.370	0.171942727	3.54	1
5808 CYP2E1	ENST00000252945	p.R282C	c.844	1.085971364	0	1
5808 CYP2E1	ENST00000252945	p.R282H	c.845	1.085971364	0	1
5809 PRDM11	ENST00000530656	p.V163M	c.487	0.033100573	0	1
5809 PRDM11	ENST00000530656	p.R256Q	c.767	0.033100573	4.917	1
5810 SERPINB5	ENST00000382771	p.A339T	c.1015	0.087777805	3.51	1
5810 SERPINB5	ENST00000382771	p.K268N	c.804	0.087777805	0	1
5811 GRM3	ENST00000361669	p.K254N	c.762	0.163912752	0	1
5811 GRM3	ENST00000361669	p.A288T	c.862	0.163912752	2.609	1
5812 MTMR6	ENST00000381801	p.P485S	c.1453	0.008132981	0	1
5812 MTMR6	ENST00000381801	p.A318V	c.953	0.008132981	6.942	1
5813 STS	ENST00000217961	p.K353R	c.1058	0.015997608	5.966	1
5813 STS	ENST00000217961	p.G173R	c.517	0.015997608	0	1
5814 PKM	ENST00000319622	p.T60M	c.179	0.009800017	6.673	1
5814 PKM	ENST00000319622	p.R92H	c.275	0.009800017	0	1
5815 AKR1B10	ENST00000359579	p.G115E	c.344	0.06515411	3.94	1
5815 AKR1B10	ENST00000359579	p.A136V	c.407	0.06515411	0	1

5816 ARHGEF12	ENST00000397843	p.F1076L	c.3226	0.01678132	5.897	1
5816 ARHGEF12	ENST00000397843	p.A1107T	c.3319	0.01678132	0	1
5817 DIRAS2	ENST00000375765	p.P115L	c.344	0.008076803	0	1
5817 DIRAS2	ENST00000375765	p.A146S	c.436	0.008076803	6.952	1
5818 L3MBTL1	ENST00000427442	p.L429F	c.1285	0.020905118	5.58	1
5818 L3MBTL1	ENST00000427442	p.P477H	c.1430	0.020905118	0	1
5819 RAPH1	ENST00000374493	p.K423R	c.1268	1.00677295	0	2
5819 RAPH1	ENST00000374493	p.E452K	c.1354	0.013545899	7.206	1
5820 PARP1	ENST00000366794	p.S568F	c.1703	0.547512004	2.454	1
5820 PARP1	ENST00000366794	p.R591C	c.1771	2.182504001	0	1
5820 PARP1	ENST00000366794	p.R591S	c.1771	2.182504001	0	1
5820 PARP1	ENST00000366794	p.R591H	c.1772	2.182504001	0	1
5821 SAA1	ENST00000356524	p.F86L	c.258	0.011351289	0	1
5821 SAA1	ENST00000356524	p.E27K	c.79	0.011351289	6.461	1
5822 PGD	ENST00000270776	p.E191Q	c.571	0.059954007	5.06	1
5822 PGD	ENST00000270776	p.R288W	c.862	1.029977004	0	1
5822 PGD	ENST00000270776	p.R288Q	c.863	1.029977004	0	1
5823 SPRED2	ENST00000452315	p.V34E	c.101	0.200128703	2.321	1
5823 SPRED2	ENST00000452315	p.L115F	c.343	0.200128703	0	1
5824 PRDX2	ENST00000301522	p.R110C	c.328	0.007416735	7.075	1
5824 PRDX2	ENST00000301522	p.P13L	c.38	0.007416735	0	1
5825 CD180	ENST00000256447	p.S539Y	c.1616	0.006236706	7.325	1
5825 CD180	ENST00000256447	p.R561C	c.1681	0.006236706	0	1
5826 IRAK4	ENST00000448290	p.A335P	c.1003	0.010103507	6.629	1
5826 IRAK4	ENST00000448290	p.P366T	c.1096	0.010103507	0	1
5827 NR2F2	ENST00000394166	p.R371H	c.1112	0.03836674	4.704	1
5827 NR2F2	ENST00000394166	p.R293W	c.877	0.03836674	0	1
5828 CFB	ENST00000556679	p.L775M	c.2323	0.007598867	7.04	1
5828 CFB	ENST00000556679	p.W823F	c.2468_2469	0.007598867	0	1
5829 IMPA2	ENST00000269159	p.T97M	c.290	0.097328086	0	1
5829 IMPA2	ENST00000269159	p.F122S	c.365	0.097328086	3.361	1
5830 IL1R1	ENST00000410023	p.E38K	c.112	0.122257934	0	1
5830 IL1R1	ENST00000410023	p.P85S	c.253	0.122257934	3.032	1
5831 CD46	ENST00000322875	p.A93T	c.277	0.004431467	0	1
5831 CD46	ENST00000322875	p.I126V	c.376	0.004431467	7.818	1
5832 ARG2	ENST00000261783	p.D221Y	c.661	0.008531411	6.873	1
5832 ARG2	ENST00000261783	p.R274Q	c.821	0.008531411	0	1
5833 CIAPIN1	ENST00000394391	p.P69S	c.205	0.027641889	0	1
5833 CIAPIN1	ENST00000394391	p.E138K	c.412	0.027641889	5.177	1
5834 ESYT2	ENST00000251527	p.V339I	c.1015	1.109499789	0	2
5834 ESYT2	ENST00000251527	p.A288D	c.863	0.218999579	3.191	1
5835 FLT3	ENST00000380982	p.R387Q	c.1160	0.00841979	0	1
5835 FLT3	ENST00000380982	p.E415K	c.1243	0.00841979	6.892	1
5836 FAP	ENST00000188790	p.R590Q	c.1769	0.067171823	0	1
5836 FAP	ENST00000188790	p.G666C	c.1996	0.067171823	3.896	1
5837 CHKB	ENST00000406938	p.P133H	c.398	0.041752315	0	1
5837 CHKB	ENST00000406938	p.E178G	c.533	0.041752315	4.582	1
5838 PDZK1	ENST00000417171	p.F147L	c.441	0.023699493	0	1
5838 PDZK1	ENST00000417171	p.M170I	c.510	0.023699493	5.399	1

5839	TAS2R39	ENST00000446620	p.F142L	c.426	0.087352936	3.517	1
5839	TAS2R39	ENST00000446620	p.S253I	c.758	0.087352936	0	1
5840	NPC1L1	ENST00000289547	p.A165V	c.494	0.050625217	5.304	1
5840	NPC1L1	ENST00000289547	p.W202R	c.604	1.025312609	0	1
5840	NPC1L1	ENST00000289547	p.W202C	c.606	1.025312609	0	1
5841	PPIB	ENST00000300026	p.K41I	c.122	0.071694189	3.802	1
5841	PPIB	ENST00000300026	p.R190Q	c.569	0.071694189	0	1
5842	TICAM1	ENST00000248244	p.Y395C	c.1184	0.157781504	0	1
5842	TICAM1	ENST00000248244	p.S449L	c.1346	0.157781504	2.664	1
5843	ADAR	ENST00000292205	p.L334P	c.1001	0.04603899	0	1
5843	ADAR	ENST00000292205	p.A375D	c.1124	0.04603899	4.441	1
5844	P2RY1	ENST00000305097	p.D116N	c.346	0.17206195	3.539	1
5844	P2RY1	ENST00000305097	p.R195H	c.584	1.086030975	0	2

Supplementary Table 4. Inter-molecular clusters with annotations

Cluster ID	Gene	Transcript (Ensembl74)	HGVS Protein Annotation	HGVS Coding Position	Closeness Centrality	Geodesic from Centroid	No. of Patient Samples
0	ASB9	ENST00000380488	p.S257P	c.769	0.021345867	11.917	1
0	SOCS4	ENST00000395472	p.R383W	c.1147	0.099119113	10.045	1
0	TCEB1	ENST00000522337	p.S67L	c.200	0.221677401	11.554	1
0	TCEB1	ENST00000522337	p.Y79N	c.235	2.837601759	4.429	1
0	TCEB1	ENST00000522337	p.Y79F	c.236	2.837601759	4.429	1
0	TCEB1	ENST00000522337	p.Y79S	c.236	2.837601759	4.429	1
0	TCEB1	ENST00000522337	p.R82C	c.244	0.089629197	14.297	1
0	TCEB1	ENST00000522337	p.S86G	c.256	0.13247423	14.157	1
0	VHL	ENST00000256474	p.G114R	c.340	1.415934619	8.034	2
0	VHL	ENST00000256474	p.L153P	c.458	1.167475645	9.105	2
0	VHL	ENST00000256474	p.L158V	c.472	4.167378214	0	3
0	VHL	ENST00000256474	p.L158P	c.473	4.167378214	0	2
0	VHL	ENST00000256474	p.C162R	c.484	2.25560293	8.329	1
0	VHL	ENST00000256474	p.C162F	c.485	2.25560293	8.329	1
0	VHL	ENST00000256474	p.C162Y	c.485	2.25560293	8.329	1
0	VHL	ENST00000256474	p.V165D	c.494	0.289378379	8.169	1
0	VHL	ENST00000256474	p.S168C	c.502	0.02513302	11.681	1
0	VHL	ENST00000256474	p.L169P	c.506	2.07389913	10.484	3
1	LDB1	ENST00000425280	p.E355K	c.1063	0.041358859	9.028	1
1	LMO2	ENST00000257818	p.R138L	c.413	0.042047261	14.767	1
1	LMO2	ENST00000257818	p.R146Q	c.437	0.162058542	0	1
1	LMO2	ENST00000257818	p.R150W	c.448	0.022977926	14.673	1
1	TAL1	ENST00000371883	p.F240L	c.720	0.081670168	3.902	1
1	TAL1	ENST00000371883	p.D247E	c.741	0.094839587	3.501	1
1	TAL1	ENST00000371883	p.E250K	c.748	0.004958992	7.867	1
1	TCF3	ENST00000395423	p.L576M	c.1726	0.009067627	10.789	1
2	HIST1H2AE	ENST00000303910	p.A53V	c.158	0.022577137	17.557	1
2	HIST1H2AE	ENST00000303910	p.A22T	c.64	1.105733219	0	1
2	HIST1H2AE	ENST00000303910	p.A22V	c.65	1.105733219	0	1
2	HIST1H2BA	ENST00000274764	p.TKAVTKYTS117in_frame_del	c.347_373	1.008946033	8.136	1
2	HIST1H2BA	ENST00000274764	p.T117A	c.349	1.008946033	8.136	1
2	HIST1H2BJ	ENST00000541790	p.K121E	c.361	0.197937855	3.342	1
3	CDK2	ENST00000553376	p.K34T	c.101	0.008947725	7.814	1
3	CDK2	ENST00000553376	p.G13D	c.38	0.040170053	4.646	1
3	CDK2	ENST00000553376	p.K20E	c.58	0.036476549	9.636	1
3	CDKN1B	ENST00000396340	p.D63E	c.189	0.009794241	16.438	1
3	CDKN1B	ENST00000396340	p.E78K	c.232	0.036872911	14.468	1

3	CDKN1B	ENST00000396340	p.K81R	c.242	0.045696591	0	1
4	HBA2	ENST00000251595	p.L35M	c.103	0.421662862	0	1
4	HBB	ENST00000335295	p.E8D	c.24	0.050830748	4.768	1
4	HBB	ENST00000335295	p.P126T	c.376	0.214880288	2.54	1
4	HBB	ENST00000335295	p.A129S	c.385	0.234417973	2.393	1
4	HBE1	ENST00000380237	p.E7K	c.19	0.004826262	8.199	1
4	HBE1	ENST00000380237	p.K133N	c.399	0.003407999	8.702	1
4	HBG1	ENST00000330597	p.V135M	c.403	0.023640439	5.893	1
5	MTERFD2	ENST00000391980	p.Q275K	c.823	0.001171847	9.737	1
5	NSUN4	ENST00000474844	p.L45F	c.135	0.001171847	0	1
6	KMT2D	ENST00000301067	p.A5339V	c.16016	0.008502785	0	1
6	WDR5	ENST00000358625	p.D92N	c.274	0.004147036	7.92	1
6	WDR5	ENST00000358625	p.G147E	c.440	0.002766494	8.506	1
6	WDR5	ENST00000358625	p.D150G	c.449	0.001634303	9.267	1
7	IL20	ENST00000367098	p.L106F	c.316	0.001295919	9.594	1
7	IL20	ENST00000367098	p.R107W	c.319	0.001521664	9.362	1
7	IL20RB	ENST00000329582	p.Q71R	c.212	0.00281365	0	1
8	RAB1B	ENST00000311481	p.V130A	c.389	0.115852001	0	1
8	TBC1D20	ENST00000461304	p.N190K	c.570	0.113364473	3.145	1
8	TBC1D20	ENST00000461304	p.P304S	c.910	0.00312163	8.478	1
9	RPL15	ENST00000354811	p.R44Q	c.131	0.000286214	11.778	1
9	RPL15	ENST00000354811	p.R49G	c.145	0.000970644	12.618	1
9	RPL15	ENST00000354811	p.Q8R	c.23	0.005144207	7.607	1
9	RPL15	ENST00000354811	p.E9K	c.25	0.002619271	8.584	1
9	RPL7A	ENST00000323345	p.F169L	c.507	0.008179113	0	1
10	NR1I3	ENST00000367980	p.D291N	c.871	0.011960055	18.202	1
10	NR1I3	ENST00000367980	p.R329W	c.985	0.147249329	5.286	1
10	PPARG	ENST00000287820	p.E352K	c.1054	0.042924769	6.877	1
10	PPARG	ENST00000287820	p.T468A	c.1402	0.242051211	5.892	1
10	RXRA	ENST00000481739	p.R421H	c.1262	0.032305341	11.787	1
10	RXRA	ENST00000481739	p.R426H	c.1277	0.161907649	8.733	1
10	RXRA	ENST00000481739	p.S427Y	c.1280	4.053860453	0	1
10	RXRA	ENST00000481739	p.S427F	c.1280	4.053860453	0	4
10	RXRA	ENST00000481739	p.G429V	c.1286	0.010926881	11.988	1
11	HIST1H3D	ENST00000377831	p.R27G	c.79	1.146746507	0	2
11	HIST1H3D	ENST00000377831	p.K28M	c.83	0.008773972	9.995	1
11	HIST1H3J	ENST00000359303	p.K28R	c.83	0.008773972	9.995	1
11	TRIM24	ENST00000343526	p.E978K	c.2932	0.303109715	2.788	1
12	B2M	ENST00000544417	p.H51P	c.152	0.140582605	8.218	1

12	CD1A	ENST00000289429	p.S34C	c.101	0.015197268	16.21	1
12	CD1A	ENST00000289429	p.A33T	c.97	2.003796585	0	3
12	CD1D	ENST00000368171	p.Q137H	c.411	0.114663354	11.384	1
12	HFE	ENST00000357618	p.G36C	c.106	0.005982804	15.786	1
12	MR1	ENST00000367580	p.A135V	c.404	0.011142367	14.883	1
13	DCLRE1C	ENST00000378278	p.V491L	c.1471	0.012098692	6.645	1
13	DCLRE1C	ENST00000378278	p.R495T	c.1484	0.04966399	4.346	1
13	LIG4	ENST00000405925	p.S45Y	c.134	0.059180868	0	1
13	LIG4	ENST00000405925	p.P15R	c.44	0.00163142	15.919	1
14	CAND1	ENST00000545606	p.E1167Q	c.3499	0.011271229	6.504	1
14	CAND1	ENST00000545606	p.D1170N	c.3508	0.023240882	5.443	1
14	CUL1	ENST00000602748	p.H280Y	c.838	0.034005558	0	1
15	SPTA1	ENST00000368147	p.R28H	c.83	0.128375016	10.523	1
15	SPTA1	ENST00000368147	p.E30K	c.88	1.008052307	0	2
15	SPTA1	ENST00000368147	p.T33I	c.98	0.016472264	13.185	1
15	SPTB	ENST00000556626	p.F2014L	c.6042	0.048031764	15.517	1
15	SPTB	ENST00000556626	p.E2022Q	c.6064	0.126112728	7.109	1
16	CDK6	ENST00000265734	p.T154S	c.460	0.054221168	5.205	1
16	CDKN2A	ENST00000361570	p.G143E	c.428	1.027110584	0	2
16	CDKN2A	ENST00000361570	p.G143K	c.428_427	1.027110584	0	2
17	PPP1CA	ENST00000312989	p.E137D	c.411	0.001080998	13.494	1
17	PPP1CA	ENST00000312989	p.Y148C	c.443	0.056259762	11.281	1
17	PPP1CA	ENST00000312989	p.D205N	c.613	0.09485896	0	1
17	PPP1R8	ENST00000311772	p.F169L	c.507	0.063649347	7.118	1
17	PPP1R8	ENST00000311772	p.S178C	c.533	0.088828374	3.52	1
18	NHEJ1	ENST00000409720	p.R109Q	c.326	1.027469986	0	2
18	XRCC4	ENST00000338635	p.A60T	c.178	0.054939973	5.186	1
19	TP53	ENST00000445888	p.Y163H	c.487	11.02596838	13.933	1
19	TP53	ENST00000445888	p.Y163N	c.487	11.02596838	13.933	1
19	TP53	ENST00000445888	p.Y163C	c.488	11.02596838	13.933	10
19	TP53	ENST00000445888	p.H168L	c.503	3.341965517	10.146	2
19	TP53	ENST00000445888	p.H168P	c.503	3.341965517	10.146	1
19	TP53	ENST00000445888	p.H168R	c.503	3.341965517	10.146	1
19	TP53	ENST00000445888	p.E171K	c.511	1.152126294	11.383	2
19	TP53	ENST00000445888	p.S241P	c.721	13.01770902	14.489	1
19	TP53	ENST00000445888	p.S241C	c.722	13.01770902	14.489	3
19	TP53	ENST00000445888	p.S241F	c.722	13.01770902	14.489	9
19	TP53	ENST00000445888	p.S241Y	c.722	13.01770902	14.489	1
19	TP53	ENST00000445888	p.C242S	c.724	7.027628461	13.849	1

19	TP53	ENST00000445888	p.C242F	c.725	7.027628461	13.849	5
19	TP53	ENST00000445888	p.C242Y	c.725	7.027628461	13.849	2
19	TP53	ENST00000445888	p.G244C	c.730	12.0576284	12.756	4
19	TP53	ENST00000445888	p.G244R	c.730	12.0576284	12.756	1
19	TP53	ENST00000445888	p.G244S	c.730	12.0576284	12.756	3
19	TP53	ENST00000445888	p.G244D	c.731	12.0576284	12.756	4
19	TP53	ENST00000445888	p.G245C	c.733	42.07107215	12.277	3
19	TP53	ENST00000445888	p.G245R	c.733	42.07107215	12.277	2
19	TP53	ENST00000445888	p.G245S	c.733	42.07107215	12.277	21
19	TP53	ENST00000445888	p.G245D	c.734	42.07107215	12.277	8
19	TP53	ENST00000445888	p.G245V	c.734	42.07107215	12.277	9
19	TP53	ENST00000445888	p.GGM244in_frame_delV	c.736_731	12.0576284	12.756	1
19	TP53	ENST00000445888	p.M246R	c.737	1.089054703	12.163	1
19	TP53	ENST00000445888	p.M246I	c.738	1.089054703	12.163	1
19	TP53	ENST00000445888	p.N247I	c.740	0.620920793	9.378	1
19	TP53	ENST00000445888	p.R248G	c.742	93.0675064	0	1
19	TP53	ENST00000445888	p.R248W	c.742	93.0675064	0	42
19	TP53	ENST00000445888	p.R248W	c.742_741	93.0675064	0	42
19	TP53	ENST00000445888	p.R248L	c.743	93.0675064	0	2
19	TP53	ENST00000445888	p.R248P	c.743	93.0675064	0	3
19	TP53	ENST00000445888	p.R248Q	c.743	93.0675064	0	46
19	TP53	ENST00000445888	p.R249G	c.745	19.24071927	10.304	6
19	TP53	ENST00000445888	p.R249W	c.745	19.24071927	10.304	2
19	TP53	ENST00000445888	p.R249M	c.746	19.24071927	10.304	5
19	TP53	ENST00000445888	p.R249T	c.746	19.24071927	10.304	1
19	TP53	ENST00000445888	p.R249S	c.747	19.24071927	10.304	6
19	TP53	ENST00000445888	p.P250L	c.749	6.012770546	14.97	7
19	TP53	ENST00000445888	p.P250L	c.750_749	6.012770546	14.97	7
19	TP53BP1	ENST00000382044	p.Y1848C	c.5543	0.02924737	15.154	1
19	TP53BP1	ENST00000382044	p.I1864V	c.5590	1.93763312	5.601	1
19	TP53BP2	ENST00000343537	p.D956H	c.2866	4.001016126	6.362	1
20	PIK3CA	ENST00000263967	p.V344M	c.1030	8.371794736	7.746	4
20	PIK3CA	ENST00000263967	p.V344A	c.1031	8.371794736	7.746	2
20	PIK3CA	ENST00000263967	p.V344G	c.1031	8.371794736	7.746	3
20	PIK3CA	ENST00000263967	p.N345I	c.1034	24.77404515	0	1
20	PIK3CA	ENST00000263967	p.N345T	c.1034	24.77404515	0	1
20	PIK3CA	ENST00000263967	p.N345K	c.1035	24.77404515	0	22
20	PIK3CA	ENST00000263967	p.D350N	c.1048	5.219697891	8.632	2
20	PIK3CA	ENST00000263967	p.D350G	c.1049	5.219697891	8.632	4

20	PIK3CA	ENST00000263967	p.R412Q	c.1235	0.149154824	19.584	1
20	PIK3CA	ENST00000263967	p.C420G	c.1258	12.98691233	7.596	1
20	PIK3CA	ENST00000263967	p.C420R	c.1258	12.98691233	7.596	12
20	PIK3CA	ENST00000263967	p.PVPHGLEDL447in_frame_del	c.1338_1364	1.184172503	8.874	2
20	PIK3CA	ENST00000263967	p.HGLEDLLNP450in_frame_del	c.1345_1371	0.672357857	12.009	1
20	PIK3CA	ENST00000263967	p.P449L	c.1346	0.410995089	11.789	1
20	PIK3CA	ENST00000263967	p.G451R	c.1351	1.205211139	16.74	1
20	PIK3CA	ENST00000263967	p.G451V	c.1352	1.205211139	16.74	1
20	PIK3CA	ENST00000263967	p.E453K	c.1357	11.43198762	8.957	8
20	PIK3CA	ENST00000263967	p.E453Q	c.1357	11.43198762	8.957	2
20	PIK3CA	ENST00000263967	p.E453D	c.1359	11.43198762	8.957	1
20	PIK3CA	ENST00000263967	p.D454Y	c.1360	0.170822834	17.241	1
20	PIK3CA	ENST00000263967	p.P471A	c.1411	2.113757056	8.731	1
20	PIK3CA	ENST00000263967	p.P471L	c.1412	2.113757056	8.731	2
20	PIK3R1	ENST00000396611	p.SREYD460in_frame_del	c.1378_1392	0.022291475	18.226	1
20	PIK3R1	ENST00000396611	p.DRLY464in_frame_del	c.1386_1397	3.129769274	15.289	1
20	PIK3R1	ENST00000396611	p.D464N	c.1390	3.129769274	15.289	2
20	PIK3R1	ENST00000396611	p.D464V	c.1391	3.129769274	15.289	1
20	PIK3R1	ENST00000396611	p.RLY465in_frame_del	c.1391_1399	0.014100342	18.891	1
20	PIK3R1	ENST00000396611	p.EIDK558in_frame_del	c.1671_1682	0.511115701	5.655	1
20	PIK3R1	ENST00000396611	p.I559V	c.1675	1.245324175	6.714	1
20	PIK3R1	ENST00000396611	p.I559T	c.1676	1.245324175	6.714	1
20	PIK3R1	ENST00000396611	p.D560H	c.1678	6.013880515	2.795	1
20	PIK3R1	ENST00000396611	p.D560G	c.1679	6.013880515	2.795	2
20	PIK3R1	ENST00000396611	p.MNSIKPDL563in_frame_dell	c.1688_1708	1.544219884	6.543	1
20	PIK3R1	ENST00000396611	p.NSIKPDLIQL564in_frame_del	c.1688_1717	10.78385116	2.645	1
20	PIK3R1	ENST00000396611	p.MN563in_frame_dell	c.1689_1691	1.544219884	6.543	1
20	PIK3R1	ENST00000396611	p.N564D	c.1690	10.78385116	2.645	5
20	PIK3R1	ENST00000396611	p.NSIKP564in_frame_delT	c.1691_1702	10.78385116	2.645	1
20	PIK3R1	ENST00000396611	p.KPDL567in_frame_del	c.1697_1708	5.941609039	11.416	2
20	PIK3R1	ENST00000396611	p.K567in_frame_del	c.1698_1700	5.941609039	11.416	1
20	PIK3R1	ENST00000396611	p.K567E	c.1699	5.941609039	11.416	2
20	PIK3R1	ENST00000396611	p.P568T	c.1702	1.606340704	11.097	1
20	PIK3R1	ENST00000396611	p.LIQLRKTRD570in_frame_del	c.1704_1730	0.669753006	13.437	1
20	PIK3R1	ENST00000396611	p.IQLRKTR571in_frame_del	c.1711_1731	2.115936557	11.788	1
20	PIK3R1	ENST00000396611	p.Q572R	c.1715	0.155821183	15.797	1
20	PIK3R1	ENST00000396611	p.R574in_frame_del	c.1719_1721	4.394678202	11.289	2
20	PIK3R1	ENST00000396611	p.KTR575in_frame_del	c.1719_1727	2.280134625	14.869	1
20	PIK3R1	ENST00000396611	p.R574in_frame_del	c.1720_1722	4.394678202	11.289	2

20	PIK3R1	ENST00000396611	p.R574T	c.1721	4.394678202	11.289	1
20	PIK3R1	ENST00000396611	p.KT575in_frame_del	c.1723_1728	2.280134625	14.869	1
20	PIK3R1	ENST00000396611	p.KTRDQYL575in_frame_del	c.1723_1743	2.280134625	14.869	1
21	CBL	ENST00000264033	p.C384W	c.1152	0.045974123	5.24	1
21	CBLB	ENST00000264122	p.W400R	c.1198	0.02398647	5.42	1
21	UBE2D2	ENST00000398733	p.P61S	c.181	0.050317795	0	1
21	UBE2L3	ENST00000545681	p.S4G	c.10	0.042920434	11	1
21	UBE3A	ENST00000397954	p.I682V	c.2044	0.016161249	16.99	1
21	UBE3A	ENST00000397954	p.Q684H	c.2052	0.003102143	19.389	1
21	UBE3A	ENST00000397954	p.Y694C	c.2081	0.003417268	19.249	1
21	UBE3A	ENST00000397954	p.D701I	c.2102_2101	0.002044401	19.992	1
22	CRADD	ENST00000332896	p.R147C	c.439	0.061864578	5.115	1
22	CRADD	ENST00000332896	p.R170H	c.509	0.00248363	9.674	1
22	PIDD	ENST00000347755	p.R798C	c.2392	1.030198583	0	2
22	PIDD	ENST00000347755	p.R825W	c.2473	0.005122078	13.04	1
23	CPA4	ENST00000222482	p.G166E	c.497	0.004541608	8.63	1
23	CPA4	ENST00000222482	p.R236L	c.707	0.012548311	6.32	1
23	LXN	ENST00000264265	p.R214C	c.640	0.001990901	17.606	1
23	LXN	ENST00000264265	p.K217N	c.651	0.015045856	0	1
24	RPL19	ENST00000225430	p.R52C	c.154	5.80E-05	14.074	1
24	RPL19	ENST00000225430	p.D25H	c.73	3.64E-05	14.744	1
24	RPL22	ENST00000234875	p.R101H	c.302	9.44E-05	0	1
25	GINS3	ENST00000426538	p.E17D	c.51	0.006406741	7.292	1
25	GINS3	ENST00000426538	p.D24G	c.71	0.00405854	7.954	1
25	GINS4	ENST00000276533	p.P163S	c.487	0.010413815	0	1
26	ARHGAP1	ENST00000311956	p.A406V	c.1217	0.104630207	10.362	1
26	ARHGAP1	ENST00000311956	p.I408V	c.1222	0.01383768	13.395	1
26	ARHGAP20	ENST00000260283	p.P515A	c.1543	0.031184796	12.684	1
26	ARHGEF11	ENST00000368194	p.A963V	c.2888	2.008668198	0	3
26	RHOA	ENST00000418115	p.Q63K	c.187	0.092342082	19.647	1
26	RHOA	ENST00000418115	p.L69P	c.206	0.154273267	7.028	1
28	BROX	ENST00000340934	p.P206N	c.616_617	0.010280113	0	1
28	CHMP5	ENST00000223500	p.D204N	c.610	0.010280113	6.604	1
29	DCAF12	ENST00000361264	p.R53W	c.157	1.015980449	7.74	1
29	DCAF12	ENST00000361264	p.R53P	c.158	1.015980449	7.74	1
29	DCAF6	ENST00000367840	p.L19P	c.56	0.20978494	3.364	1
29	DCAF8	ENST00000556710	p.P310S	c.928	0.000997461	12.437	1
29	DCAF8	ENST00000556710	p.R315W	c.943	0.017880712	8.218	1
29	DDB1	ENST00000301764	p.S386Y	c.1157	0.000691875	14.131	1

29	DDB1	ENST00000301764	p.P721L	c.2162	0.01195675	10.171	1
29	DDB1	ENST00000301764	p.E1002K	c.3004	0.005251533	13.66	1
29	DDB1	ENST00000301764	p.V1004I	c.3010	0.018843869	12.033	1
29	DDB1	ENST00000301764	p.G1035S	c.3103	0.003346967	12.722	1
29	DDB1	ENST00000301764	p.R327C	c.979	1.111407007	0	2
30	GGA1	ENST00000381756	p.T305I	c.914	0.04623086	0	1
30	RABEP1	ENST00000262477	p.L562M	c.1684	0.04623086	4.435	1
31	CACNA1C	ENST00000406454	p.A1564S	c.4690	0.018300325	18.606	1
31	CACNA1C	ENST00000406454	p.K1617N	c.4851	0.096920203	18.503	1
31	CALM1	ENST00000447653	p.E84K	c.250	0.188916836	19.169	1
31	CALM3	ENST00000291295	p.M73I	c.219	0.290989274	11.448	1
31	CALM3	ENST00000291295	p.M145I	c.435	0.419020213	4.212	1
31	CAMK2D	ENST00000511664	p.R297T	c.890	0.156459491	7.265	1
31	CAMK2D	ENST00000511664	p.I304T	c.911	0.066909111	8.568	1
31	DAPK1	ENST00000469640	p.R310C	c.928	1.070744069	0	2
31	DAPK1	ENST00000469640	p.R317I	c.950	0.018838175	17.53	1
31	MYLK2	ENST00000375985	p.A578T	c.1732	0.111103883	15.291	1
31	MYLK2	ENST00000375985	p.R581C	c.1741	0.264980101	16.578	1
31	NGFR	ENST00000172229	p.A400T	c.1198	0.126788136	14.818	1
31	PPP3CA	ENST00000394854	p.R397K	c.1190	0.231854306	7.116	1
32	COL2A1	ENST00000380518	p.G1170S	c.3508	0.126009066	3.143	1
32	PMEL	ENST00000360714	p.W52C	c.156	0.009812421	6.956	1
33	MAPK1	ENST00000398822	p.N257S	c.770	0.030792314	5.028	1
33	MAPK1	ENST00000398822	p.N262T	c.785	0.00480767	7.744	1
33	PEA15	ENST00000368076	p.R93H	c.278	0.035314044	0	1
34	LY96	ENST00000284818	p.R90C	c.268	1.278335779	0	2
34	LY96	ENST00000284818	p.K125Q	c.373	1.116786255	11.679	2
34	TLR4	ENST00000355622	p.S415I	c.1244	0.013207932	18.999	1
34	TLR4	ENST00000355622	p.F418L	c.1254	0.018591619	18.504	1
34	TLR4	ENST00000355622	p.L419F	c.1257	0.152620053	15.421	1
34	TLR4	ENST00000355622	p.E439K	c.1315	1.26772085	2.91	1
34	TLR4	ENST00000355622	p.E439A	c.1316	1.26772085	2.91	1
34	TLR4	ENST00000355622	p.F440L	c.1318	0.081216245	6.429	1
35	PLXNB1	ENST00000296440	p.D1736N	c.5206	0.080658059	7.217	1
35	RAC1	ENST00000356142	p.P29S	c.85	11.0067215	0	9
35	RAC1	ENST00000356142	p.P29T	c.85	11.0067215	0	1
35	RAC1	ENST00000356142	p.P29L	c.86	11.0067215	0	2
36	NXF1	ENST00000532297	p.R78L	c.233	0.019505165	0	1
36	TNPO1	ENST00000337273	p.C285Y	c.854	0.019505165	5.68	1

37	EEF1A2	ENST00000298049	p.A355T	c.1063	0.069255291	6.659	1
37	ITGB3	ENST00000559488	p.S61L	c.182	0.020303575	16.581	1
37	MBP	ENST00000355994	p.R231C	c.691	0.087500475	3.572	1
38	CALM1	ENST00000447653	p.D135N	c.403	0.115428345	3.124	1
38	CALM2	ENST00000409563	p.G180A	c.539	0.007029618	7.309	1
38	MYO1C	ENST00000359786	p.P409L	c.1226	0.121011244	0	1
39	FGF1	ENST00000359370	p.G35D	c.104	0.08217316	13.529	1
39	FGF1	ENST00000359370	p.T111P	c.331	0.010582812	14.021	1
39	FGF1	ENST00000359370	p.L148F	c.442	0.477565094	3.873	1
39	FGF10	ENST00000264664	p.N159K	c.477	0.020641322	13.046	1
39	FGFR1	ENST00000425967	p.A201S	c.601	0.014472672	10.537	1
39	FGFR1	ENST00000425967	p.R281W	c.841	0.113783346	7.49	1
39	FGFR2	ENST00000457416	p.E163K	c.487	1.012516237	19.931	2
39	FGFR2	ENST00000457416	p.R165W	c.493	0.0717777	19.233	1
39	FGFR2	ENST00000457416	p.A168T	c.502	0.176289559	6.906	1
39	FGFR2	ENST00000457416	p.R251Q	c.752	0.15939485	7.257	1
39	FGFR3	ENST00000340107	p.R248C	c.742	1.091529133	0	2
39	FGFR4	ENST00000502906	p.V168D	c.503	0.040294781	9.042	1
39	SYT1	ENST00000393240	p.P247S	c.739	0.078758807	18.782	1
40	C8A	ENST00000361249	p.A221V	c.662	0.118923675	0	1
40	C8A	ENST00000361249	p.G224R	c.670	0.007509758	10.432	1
40	C8B	ENST00000371237	p.V427G	c.1280	0.012624231	6.455	1
40	C8B	ENST00000371237	p.R274Q	c.821	0.114796248	3.227	1
41	EGF	ENST00000265171	p.Y983C	c.2948	0.023677539	10.435	1
41	EGFR	ENST00000275493	p.L38V	c.112	0.012215216	18.127	1
41	EGFR	ENST00000275493	p.S380Y	c.1139	0.106495543	16.642	1
41	EGFR	ENST00000275493	p.E114K	c.340	2.000735629	0	3
42	BRCA2	ENST00000544455	p.V1542A	c.4625	0.063901783	0	1
42	RAD51	ENST00000382643	p.A210V	c.629	0.063901783	3.968	1
43	CD4	ENST00000011653	p.T444P	c.1330	0.043593496	0	1
43	LCK	ENST00000333070	p.D12N	c.34	0.022849276	5.482	1
43	LCK	ENST00000333070	p.I17T	c.50	0.010103408	6.677	1
43	LCK	ENST00000333070	p.V19L	c.55	0.011814063	6.449	1
44	CBFB	ENST00000412916	p.P70S	c.208	0.008645326	10.178	1
44	CBFB	ENST00000412916	p.A99V	c.296	0.011900651	9.714	1
44	CBFB	ENST00000412916	p.I102N	c.305	1.129098436	0	1
44	CBFB	ENST00000412916	p.I102M	c.306	1.129098436	0	1
44	CBFB	ENST00000412916	p.N104S	c.311	0.022441023	10.819	1
44	RUNX1	ENST00000300305	p.P184L	c.551	0.273652358	2.983	1

44	RUNX1	ENST00000300305	p.Y189H	c.565	0.016978933	16.707	1
45	BAK1	ENST00000360661	p.R76W	c.226	0.253349064	2.11	1
45	BAX	ENST00000293288	p.W139C	c.417	0.024153428	8.973	1
45	BCL2L1	ENST00000420653	p.R132L	c.395	0.325332871	0	1
45	BCL2L11	ENST00000393256	p.R153P	c.458	0.134639324	3.447	1
46	EXOSC2	ENST00000372358	p.E232D	c.696	0.010205604	11.224	1
46	EXOSC2	ENST00000372358	p.R238W	c.712	0.065302027	7.18	1
46	EXOSC2	ENST00000372358	p.D270N	c.808	0.212895352	0	1
46	EXOSC7	ENST00000265564	p.E20K	c.58	0.003998631	19.199	1
46	EXOSC7	ENST00000265564	p.D25G	c.74	0.196774291	2.929	1
46	EXOSC7	ENST00000265564	p.R27C	c.79	0.092217317	3.751	1
47	CACYBP	ENST00000367679	p.A62V	c.185	0.075050214	3.736	1
47	SIAH1	ENST00000356721	p.L189I	c.565	0.075050214	0	1
48	HCFC1	ENST00000369984	p.T1087N	c.3260	0.108163006	0	1
48	OGT	ENST00000373719	p.S399F	c.1196	0.01052268	6.706	1
48	OGT	ENST00000373719	p.Y418C	c.1253	0.080578586	3.676	1
48	OGT	ENST00000373719	p.D430N	c.1288	0.009504799	6.854	1
48	OGT	ENST00000373719	p.L435M	c.1303	0.012831676	6.417	1
49	CHRNA4	ENST00000370263	p.A56S	c.166	0.006146582	0	1
49	CHRN2	ENST00000368476	p.R106W	c.316	0.006146582	7.346	1
50	APP	ENST00000346798	p.M303I	c.909	0.18279296	0	1
50	PRSS3	ENST00000361005	p.G106C	c.316	0.125192561	3.089	1
50	PRSS3	ENST00000361005	p.R125H	c.374	0.021456283	5.762	1
50	PRSS3	ENST00000361005	p.S257F	c.770	0.053212107	4.416	1
51	CGA	ENST00000369582	p.F57L	c.171	0.039379682	13.453	1
51	CGA	ENST00000369582	p.K75T	c.224	0.297778764	6.304	1
51	CGA	ENST00000369582	p.V77I	c.229	1.175886683	0	2
51	CGA	ENST00000369582	p.Y113F	c.338	0.283484354	11.632	1
51	CGB	ENST00000357383	p.R115H	c.344	0.377981868	9.045	1
51	CGB5	ENST00000301408	p.A103T	c.307	0.032279655	6.496	1
51	CGB7	ENST00000377280	p.A34T	c.100	0.012833093	19.775	1
51	CGB7	ENST00000377280	p.V49A	c.146	0.071021743	15.741	1
51	CGB7	ENST00000377280	p.D119E	c.357	0.401470775	2.74	1
51	FSHB	ENST00000533718	p.D54N	c.160	0.062375726	17.429	1
51	FSHB	ENST00000533718	p.T68S	c.202	0.224374258	18.858	1
51	FSHR	ENST00000406846	p.S128F	c.383	0.008569621	13.539	1
51	LHCGR	ENST00000294954	p.E154K	c.460	0.025693753	14.77	1
51	LHCGR	ENST00000294954	p.E203K	c.607	0.015857295	15.474	1
52	C3	ENST00000245907	p.S1304N	c.3911	0.038992324	6.136	1

52 C3	ENST00000245907	p.S1305P	c.3913	0.149978562	2.758	1
52 C3	ENST00000245907	p.E1326K	c.3976	0.119696197	14.851	1
52 CFB	ENST00000425368	p.R415H	c.1244	0.137900059	11.759	1
52 CFB	ENST00000425368	p.E644K	c.1930	0.162370598	0	1
53 CNOT1	ENST00000317147	p.M1454I	c.4362	0.167125062	2.581	1
53 RQCD1	ENST00000509807	p.P75S	c.223	0.167125062	0	1
54 HFE	ENST00000357618	p.F98L	c.292	0.036573294	5.798	1
54 TF	ENST00000402696	p.G383R	c.1147	0.07036038	4.842	1
54 TFRC	ENST00000360110	p.R646C	c.1936	1.052840165	0	1
54 TFRC	ENST00000360110	p.R646S	c.1936	1.052840165	0	1
55 DOCK2	ENST00000256935	p.L1527H	c.4580	1.009112638	10.5	2
55 DOCK2	ENST00000256935	p.L1531P	c.4592	0.018680101	9.464	1
55 DOCK2	ENST00000256935	p.G1533E	c.4598	1.105618744	0	2
55 DOCK2	ENST00000256935	p.I1534S	c.4601	0.024220866	9.084	1
55 DOCK2	ENST00000256935	p.V1539F	c.4615	0.07833203	10.258	1
55 RAC1	ENST00000356142	p.N39S	c.116	0.246188708	3.422	1
55 RAC1	ENST00000356142	p.Y40S	c.119	0.028545939	7.196	1
55 RAC1	ENST00000356142	p.Q61R	c.182	0.141148073	15.11	1
55 RAC1	ENST00000356142	p.G15S	c.43	0.004520109	18.15	1
55 RAC1	ENST00000356142	p.C18F	c.53	1.00614634	17.697	1
55 RAC1	ENST00000356142	p.C18Y	c.53	1.00614634	17.697	1
55 VAV1	ENST00000602142	p.M330I	c.990	0.172255034	18.566	1
56 CFBF	ENST00000412916	p.A56G	c.167	0.068152341	7.539	1
56 CFBF	ENST00000412916	p.N63S	c.188	0.36837865	0	1
56 RUNX1	ENST00000300305	p.A134P	c.400	0.158628658	3.06	1
56 RUNX1	ENST00000300305	p.G135D	c.404	0.108934658	3.683	1
56 RUNX1	ENST00000300305	p.N139S	c.416	0.031511431	5.74	1
56 RUNX1	ENST00000300305	p.S141L	c.422	0.21101141	2.819	1
56 RUNX1	ENST00000300305	p.ELRNA143in_frame_del	c.441_427	0.006566686	7.698	1
57 NONO	ENST00000276079	p.R153Q	c.458	0.011690631	6.588	1
57 NONO	ENST00000276079	p.V222G	c.665	0.018894762	5.887	1
57 NONO	ENST00000276079	p.R293H	c.878	0.110709232	3.214	1
57 PSPC1	ENST00000338910	p.D283E	c.849	0.135060744	0	1
58 DKK1	ENST00000373970	p.Q184H	c.552	0.00361447	0	1
58 LRP6	ENST00000261349	p.Q1187K	c.3559	0.00361447	8.112	1
59 B2M	ENST00000544417	p.Y30H	c.88	0.222021027	5.175	1
59 CD1A	ENST00000289429	p.W260R	c.778	1.014450801	12.068	2
59 CD1B	ENST00000368168	p.W261L	c.782	0.012465033	11.778	1
59 CD1D	ENST00000368171	p.D258N	c.772	0.009683733	12.145	1

59	CD1D	ENST00000368171	p.L263F	c.787	1.032292456	0	1
59	CD1D	ENST00000368171	p.L263I	c.787	1.032292456	0	1
59	CD1D	ENST00000368171	p.R264L	c.791	0.108910855	8.544	1
59	CD1D	ENST00000368171	p.A265T	c.793	0.009304552	12.203	1
59	HFE	ENST00000357618	p.G260V	c.779	0.01250794	11.773	1
60	RNF43	ENST00000584437	p.L82S	c.245	0.015533093	9.391	1
60	RNF43	ENST00000584437	p.M83T	c.248	0.146262309	7.203	1
60	RNF43	ENST00000584437	p.S85F	c.254	0.114249072	3.392	1
60	RNF43	ENST00000584437	p.H86R	c.257	0.183603749	2.857	1
60	RNF43	ENST00000584437	p.M173T	c.518	0.003172084	9.824	1
60	RSPO1	ENST00000401068	p.G52S	c.154	0.035989348	7.937	1
60	RSPO1	ENST00000401068	p.N67K	c.201	0.025658773	12.556	1
60	RSPO1	ENST00000401068	p.D68N	c.202	0.134641636	10.28	1
60	RSPO1	ENST00000401068	p.Q71P	c.212	0.247714637	0	1
61	CD80	ENST00000264246	p.A125T	c.373	1.009329276	0	2
61	CD86	ENST00000330540	p.M120I	c.360	0.01420268	12.928	1
61	CTLA4	ENST00000302823	p.A87T	c.259	0.032347965	6.764	1
62	C8A	ENST00000361249	p.R207W	c.619	1.004055232	0	1
62	C8A	ENST00000361249	p.R207Q	c.620_621	1.004055232	0	1
62	C8B	ENST00000371237	p.D148E	c.444	0.008110463	7.946	1
63	CAPN2	ENST00000295006	p.R664L	c.1991	0.038792538	5.846	1
63	CAPN2	ENST00000295006	p.R668Q	c.2003	0.137718946	2.941	1
63	CAPNS1	ENST00000587718	p.R145H	c.434	0.025062651	10.518	1
63	CAPNS1	ENST00000588815	p.S268F	c.803	0.148285059	0	1
64	IL1B	ENST00000263341	p.R120Q	c.359	0.030285237	0	1
64	IL1R1	ENST00000233946	p.S290C	c.868	0.007602022	7.072	1
64	IL1R1	ENST00000233946	p.I293T	c.878	0.016303846	5.959	1
64	IL1R1	ENST00000233946	p.K315R	c.944	0.006936972	7.205	1
65	PPP2CA	ENST00000481195	p.L170I	c.508	0.001218064	9.715	1
65	PPP2CA	ENST00000481195	p.S173Y	c.518	0.021744618	5.62	1
65	PPP2CA	ENST00000481195	p.T176A	c.526	0.002619833	8.609	1
65	PPP2CA	ENST00000481195	p.G193C	c.577	0.002284641	12.427	1
65	PPP2CA	ENST00000481195	p.R206H	c.617	0.00059355	10.751	1
65	PPP2CA	ENST00000481195	p.F220S	c.659	0.000834	10.262	1
65	SGOL1	ENST00000421451	p.K62E	c.184	0.025687193	0	1
65	SGOL1	ENST00000421451	p.E71K	c.211	0.002570152	15.496	1
65	SGOL1	ENST00000421451	p.E77Q	c.229	0.000858525	17.653	1
66	PIK3CA	ENST00000263967	p.G364R	c.1090	1.174441574	16.847	2
66	PIK3CA	ENST00000263967	p.E365K	c.1093	4.664303134	8.355	2

66	PIK3CA	ENST00000263967	p.E365V	c.1094	4.664303134	8.355	2
66	PIK3CA	ENST00000263967	p.P366R	c.1097	0.952594619	9.799	1
66	PIK3CA	ENST00000263967	p.E542K	c.1624	80.50134273	6.196	73
66	PIK3CA	ENST00000263967	p.E542Q	c.1624	80.50134273	6.196	1
66	PIK3CA	ENST00000263967	p.E542A	c.1625	80.50134273	6.196	2
66	PIK3CA	ENST00000263967	p.E542G	c.1625	80.50134273	6.196	1
66	PIK3CA	ENST00000263967	p.E542V	c.1625	80.50134273	6.196	2
66	PIK3CA	ENST00000263967	p.E545K	c.1633	145.8737221	0	130
66	PIK3CA	ENST00000263967	p.E545Q	c.1633	145.8737221	0	2
66	PIK3CA	ENST00000263967	p.E545A	c.1634	145.8737221	0	6
66	PIK3CA	ENST00000263967	p.E545G	c.1634	145.8737221	0	5
66	PIK3CA	ENST00000263967	p.E545D	c.1635	145.8737221	0	2
66	PIK3CA	ENST00000263967	p.Q546K	c.1636	27.98619117	6.602	10
66	PIK3CA	ENST00000263967	p.Q546P	c.1637	27.98619117	6.602	6
66	PIK3CA	ENST00000263967	p.Q546R	c.1637	27.98619117	6.602	10
66	PIK3CA	ENST00000263967	p.Q546H	c.1638	27.98619117	6.602	1
66	PIK3CA	ENST00000263967	p.E547K	c.1639	1.381874736	9.057	1
66	PIK3CA	ENST00000263967	p.E547D	c.1641	1.381874736	9.057	1
66	PIK3CA	ENST00000263967	p.D1029H	c.3085	1.572814551	12.238	1
66	PIK3R1	ENST00000396611	p.G376R	c.1126	7.757511556	11.204	8
66	PIK3R1	ENST00000396611	p.G376R	c.1126	7.757511556	11.204	8
66	PIK3R1	ENST00000396611	p.K379E	c.1135	17.31170952	3.274	1
66	PIK3R1	ENST00000396611	p.K379N	c.1137	17.31170952	3.274	2
66	PIK3R1	ENST00000396611	p.L380in_frame_del	c.1137_1139	31.95012072	2.627	1
66	PIK3R1	ENST00000396611	p.452in_frame_insY	c.1353_1354	1.598063786	6.522	1
66	PIK3R1	ENST00000396611	p.461in_frame_insREKS	c.1370_1371	12.40718061	8.923	1
66	PIK3R1	ENST00000396611	p.460in_frame_insKS	c.1374_1375	1.565581508	11.915	1
66	PIK3R1	ENST00000396611	p.463in_frame_insYDRSRE	c.1376_1377	1.308844887	15.443	1
66	PIK3R1	ENST00000396611	p.463in_frame_insE	c.1382_1383	1.308844887	15.443	1
66	PIK3R1	ENST00000396611	p.469in_frame_insGLYE	c.1393_1394	3.508825341	10.733	1
66	PIK3R1	ENST00000396611	p.569in_frame_insD	c.1704_1705	3.508825341	10.733	1
66	PIK3R1	ENST00000396611	p.572in_frame_insR	c.1712_1713	1.598063786	6.522	1
67	FGB	ENST00000302068	p.S237P	c.709	0.21127642	3.533	1
67	FGB	ENST00000302068	p.E243K	c.727	0.031313975	13.616	1
67	FGB	ENST00000302068	p.E275K	c.823	0.197215869	3.902	1
67	FGB	ENST00000302068	p.G317C	c.949	0.024194765	6.48	1
67	FGG	ENST00000407946	p.D167N	c.499	1.170994116	0	1
67	FGG	ENST00000407946	p.D167E	c.501	1.170994116	0	1
67	FGG	ENST00000407946	p.I171N	c.512	0.064688566	8.042	1

67	FGG	ENST00000407946	p.G263E	c.788	0.066214087	8.568	1
68	6-Sep	ENST00000394617	p.V123M	c.367	0.009166781	7.036	1
68	6-Sep	ENST00000394617	p.V311F	c.931	0.027939486	5.22	1
68	7-Sep	ENST00000399034	p.A35V	c.104	0.002271521	15.33	1
68	7-Sep	ENST00000399034	p.P38Q	c.113	0.034474412	0	1
69	GH1	ENST00000323322	p.E82K	c.244	0.013901927	9.169	1
69	PRL	ENST00000306482	p.A82S	c.244	0.071715957	6.744	1
69	PRL	ENST00000306482	p.R205S	c.615	0.337000093	0	1
69	PRLR	ENST00000382002	p.E67K	c.199	0.252991414	2.688	1
69	PRLR	ENST00000382002	p.D120E	c.360	0.199142213	2.55	1
70	GNB1	ENST00000378609	p.R256H	c.767	0.159400674	2.651	1
70	GNB1	ENST00000378609	p.R283C	c.847	0.000909992	10.315	1
70	GNB1	ENST00000378609	p.Q32K	c.94	0.000480606	11.236	1
70	GNG2	ENST00000557376	p.D75Y	c.223	0.160409293	0	1
71	MTERFD2	ENST00000391980	p.R273W	c.817	0.079711451	0	1
71	NSUN4	ENST00000474844	p.S53N	c.158	0.001764478	9.255	1
71	NSUN4	ENST00000474844	p.P61S	c.181	0.078202542	3.679	1
72	NFKBIA	ENST00000216797	p.Q249H	c.747	0.002465336	0	1
72	RELA	ENST00000406246	p.E211K	c.631	0.002465336	8.664	1
73	CUL1	ENST00000602748	p.E499D	c.1497	0.032101341	14.335	1
73	CUL1	ENST00000602748	p.R506S	c.1516	1.135525831	4.855	1
73	CUL1	ENST00000602748	p.R506H	c.1517	1.135525831	4.855	1
73	CUL1	ENST00000602748	p.D510G	c.1529	0.013223596	7.416	1
73	CUL1	ENST00000602748	p.G543W	c.1626_1627	1.190534559	3.483	1
73	CUL1	ENST00000602748	p.G543R	c.1627	1.190534559	3.483	1
73	CUL1	ENST00000602748	p.R577Q	c.1730	0.020063756	6.936	1
73	CUL1	ENST00000602748	p.E758Q	c.2272	1.112772008	15.297	1
73	CUL1	ENST00000602748	p.E758D	c.2274	1.112772008	15.297	1
73	GLMN	ENST00000370360	p.P376S	c.1126	0.020723168	11.43	1
73	RBX1	ENST00000216225	p.M50V	c.148	1.264288905	0	1
73	RBX1	ENST00000216225	p.M50I	c.150	1.264288905	0	1
73	RBX1	ENST00000216225	p.A61V	c.182	0.164865791	9.099	1
73	RBX1	ENST00000216225	p.T90I	c.269	0.182281806	18.769	1
74	BARD1	ENST00000260947	p.M104I	c.312	0.032735504	4.933	1
74	BRCA1	ENST00000471181	p.1882in_frame_insTPP	c.5645_5644	0.032735504	0	1
75	BOC	ENST00000273395	p.T810A	c.2428	0.009799571	6.813	1
75	DHH	ENST00000266991	p.N180S	c.539	0.110748625	0	1
75	HHIP	ENST00000296575	p.M379I	c.1137	0.108121146	3.304	1
75	SHH	ENST00000297261	p.E176K	c.526	0.006580084	10.692	1

76	MMP2	ENST00000219070	p.L645V	c.1933	0.107917445	3.212	1
76	TIMP2	ENST00000262768	p.Q212R	c.635	0.107917445	0	1
77	RPS21	ENST00000450116	p.D66H	c.196	0.026116204	5.259	1
77	RPS21	ENST00000450116	p.I78F	c.232	0.000193076	13.984	1
77	RPSA	ENST00000443003	p.Y37H	c.109	0.026176308	0	1
78	NOTCH1	ENST00000277541	p.A2036V	c.6107	0.006913309	10.168	1
78	NOTCH1	ENST00000277541	p.V2038L	c.6112	0.182669514	0	1
78	RBPJ	ENST00000342295	p.R396G	c.1186	0.155978434	2.79	1
78	RBPJ	ENST00000342295	p.E399K	c.1195	0.042627288	4.748	1
79	BIN1	ENST00000316724	p.P551L	c.1652	0.006043249	7.437	1
79	BIN1	ENST00000316724	p.G582V	c.1745	0.047474666	4.405	1
79	MYC	ENST00000377970	p.S82F	c.245	0.05297312	0	1
80	IL6	ENST00000420258	p.D116N	c.346	0.025085543	0	1
80	IL6R	ENST00000368485	p.P181Q	c.542	0.025085543	5.317	1
81	IL21	ENST00000264497	p.R34C	c.100	1.001436456	18.539	1
81	IL21	ENST00000264497	p.R34S	c.100	1.001436456	18.539	1
81	IL21	ENST00000264497	p.R40S	c.118	3.001930343	0	1
81	IL21	ENST00000264497	p.R40H	c.119	3.001930343	0	3
81	IL21	ENST00000264497	p.D33Y	c.97	0.022762645	14.525	1
81	IL21R	ENST00000395755	p.Q211R	c.632	0.032849911	9.053	1
82	FSHB	ENST00000533718	p.P82H	c.245	0.003812186	8.136	1
82	FSHB	ENST00000533718	p.S90F	c.269	0.072650647	3.788	1
82	FSHR	ENST00000406846	p.R59Q	c.176	0.07594814	0	1
83	CD74	ENST00000518797	p.P219H	c.656	0.123536459	0	1
83	CTSL	ENST00000340342	p.S137Y	c.410	0.013382608	6.376	1
83	CTSL	ENST00000340342	p.L182P	c.545	0.063474699	4.067	1
83	CTSL	ENST00000340342	p.M183I	c.549	0.055549066	4.27	1
84	FGF13	ENST00000370603	p.R120L	c.359	0.148183896	5.786	1
84	FGF13	ENST00000370603	p.F204V	c.610	0.038787358	19.942	1
84	FGF13	ENST00000370603	p.P208L	c.623_622	0.065318663	16.876	1
84	FGF13	ENST00000370603	p.M213L	c.637	0.003251291	19.238	1
84	SCN2A	ENST00000283256	p.D1843N	c.5527	0.005833213	14.393	1
84	SCN2A	ENST00000283256	p.R1851W	c.5551	0.017431107	11.808	1
84	SCN2A	ENST00000283256	p.Y1893D	c.5677	0.034844267	10.929	1
84	SCN2A	ENST00000283256	p.T1897M	c.5690	0.078675764	12.876	1
84	SCN5A	ENST00000413689	p.M1842I	c.5526	0.021248544	11.518	1
84	SCN5A	ENST00000413689	p.R1847H	c.5540	1.020151981	0	2
84	SCN5A	ENST00000413689	p.M1851I	c.5553	0.010645348	12.527	1
84	SCN5A	ENST00000413689	p.K1872R	c.5615	0.018461102	11.724	1

84	SCN5A	ENST00000413689	p.S1888F	c.5663	0.015045951	12.023	1
85	APCS	ENST00000255040	p.D157N	c.469	0.05536047	0	1
85	FCGR2A	ENST00000271450	p.G136R	c.406	0.05536047	4.175	1
86	GSTM2	ENST00000369831	p.R96C	c.286	0.02118004	7.223	1
86	GSTM3	ENST00000256594	p.R82C	c.244	1.006745771	0	1
86	GSTM3	ENST00000256594	p.R82H	c.245	1.006745771	0	1
86	GSTM3	ENST00000256594	p.R86C	c.256	0.007309642	14.339	1
86	GSTM3	ENST00000256594	p.C91F	c.272	0.000595922	17.965	1
87	SMAD2	ENST00000402690	p.L442V	c.1324	0.025703836	13.913	1
87	SMAD2	ENST00000402690	p.L446V	c.1336	0.143580833	10.589	1
87	SMAD2	ENST00000402690	p.D450N	c.1348	3.184867508	2.561	1
87	SMAD2	ENST00000402690	p.S276L	c.827	1.014138155	14.773	2
87	SMAD3	ENST00000327367	p.Q405L	c.1214	0.336982472	9.042	1
87	SMAD4	ENST00000342988	p.D355G	c.1064	0.572090204	5.899	1
87	SMAD4	ENST00000342988	p.P356L	c.1067	0.278428511	8.3	1
87	SMAD4	ENST00000342988	p.S357P	c.1069	0.129484427	12.292	1
87	SMAD4	ENST00000342988	p.RFCLG361in_frame_del	c.1080_1094	17.19227095	0	1
87	SMAD4	ENST00000342988	p.R361C	c.1081	17.19227095	0	5
87	SMAD4	ENST00000342988	p.R361S	c.1081	17.19227095	0	1
87	SMAD4	ENST00000342988	p.R361H	c.1082	17.19227095	0	10
87	SMAD4	ENST00000342988	p.R361P	c.1082	17.19227095	0	1
88	CTNNB1	ENST00000349496	p.K354T	c.1061	0.003116348	8.59	1
88	CTNNB1	ENST00000349496	p.N387K	c.1161	0.022297251	8.844	1
88	CTNNB1	ENST00000349496	p.S425C	c.1274	0.020119165	5.882	1
88	CTNNB1	ENST00000349496	p.N426D	c.1276	0.085184972	3.727	1
88	CTNNB1	ENST00000349496	p.C429G	c.1285	0.11654388	3.235	1
88	CTNNBIP1	ENST00000377263	p.V68A	c.203	0.203500844	0	1
88	NR5A2	ENST00000367362	p.LD482in_frame_delH	c.1445_1447	0.02729141	15.044	1
88	TCF7L2	ENST00000545257	p.E29in_frame_del	c.80_82	0.009468252	16.254	1
89	KEAP1	ENST00000393623	p.R415C	c.1243	3.089348297	2.653	1
89	KEAP1	ENST00000393623	p.R415H	c.1244	3.089348297	2.653	1
89	KEAP1	ENST00000393623	p.G477S	c.1429	0.164379252	6.038	1
89	KEAP1	ENST00000393623	p.R483C	c.1447	2.550533232	2.772	1
89	KEAP1	ENST00000393623	p.R483H	c.1448	2.550533232	2.772	1
89	KEAP1	ENST00000393623	p.G509W	c.1525	0.991347685	3.495	1
89	KEAP1	ENST00000393623	p.G524C	c.1570	0.182362042	5.888	1
89	KEAP1	ENST00000393623	p.G527F	c.1580_1579	0.097458251	6.793	1
89	KEAP1	ENST00000393623	p.G603W	c.1807	0.267827058	7.1	1
89	KEAP1	ENST00000393623	p.G333S	c.997	0.101555192	14.8	1

89	NFE2L2	ENST00000397062	p.D77G	c.230	0.117448402	8.032	1
89	NFE2L2	ENST00000397062	p.E79K	c.235	9.816307294	0	3
89	NFE2L2	ENST00000397062	p.E79Q	c.235	9.816307294	0	7
89	NFE2L2	ENST00000397062	p.T80P	c.238	3.359889684	6.163	2
89	NFE2L2	ENST00000397062	p.T80K	c.239	3.359889684	6.163	1
89	NFE2L2	ENST00000397062	p.T80R	c.239	3.359889684	6.163	1
89	NFE2L2	ENST00000397062	p.E82G	c.245	4.084330743	9.16	1
89	NFE2L2	ENST00000397062	p.E82D	c.246	4.084330743	9.16	4
89	NFE2L2	ENST00000397062	p.E82D	c.246	4.084330743	9.16	4
90	FBLIM1	ENST00000441801	p.S12P	c.34	0.034308632	4.915	1
90	FLNA	ENST00000369850	p.E2282K	c.6844	0.068207226	0	1
90	ITGB7	ENST00000267082	p.S780K	c.2340_2339	0.036222874	4.834	1
91	ANGPT2	ENST00000325203	p.C450R	c.1348	0.011040888	0	1
91	TEK	ENST00000380036	p.S164L	c.491	0.011040888	6.501	1
92	RPS13	ENST00000525634	p.R19G	c.55	0.473257127	2.093	1
92	RPS7	ENST00000304921	p.E138K	c.412	1.23544088	0	2
92	RPS7	ENST00000304921	p.P190Q	c.569	0.00656779	9.898	1
93	CTNNB1	ENST00000349496	p.E334K	c.1000	0.002808155	12.037	1
93	CTNNB1	ENST00000349496	p.T339N	c.1016	0.005313929	11.114	1
93	CTNNB1	ENST00000349496	p.T257I	c.770	0.022818012	9.373	1
93	CTNNB1	ENST00000349496	p.K292E	c.874	0.245814919	0	1
93	TCF7L2	ENST00000545257	p.V44I	c.130	0.132888072	3.384	1
93	TCF7L2	ENST00000545257	p.S47F	c.140	0.167543088	2.758	1
94	HBA2	ENST00000251595	p.H123Y	c.367	0.055522441	9.634	1
94	HBA2	ENST00000251595	p.L126M	c.376	0.10877675	0	1
94	HBB	ENST00000335295	p.P37A	c.109	0.038073771	5.743	1
94	HBB	ENST00000335295	p.M56I	c.168	0.038087861	15.315	1
94	HBE1	ENST00000380237	p.V35D	c.104	0.104969101	3.493	1
94	HBG2	ENST00000380259	p.M56I	c.168	0.01629156	18.06	1
95	IL2	ENST00000226730	p.E80G	c.239	0.002822052	17.942	1
95	IL2	ENST00000226730	p.E82K	c.244	0.087399594	4.311	1
95	IL2	ENST00000226730	p.E126K	c.376	0.162783898	2.794	1
95	IL2	ENST00000226730	p.T131K	c.392	0.019897811	5.911	1
95	IL2RA	ENST00000379959	p.R56H	c.167	0.213897408	0	1
95	IL2RA	ENST00000379959	p.G61W	c.181	0.033199738	9.43	1
95	IL2RA	ENST00000379959	p.S84N	c.251	0.010073523	9.634	1
96	PRKAA2	ENST00000371244	p.R421L	c.1262	0.1849202	5.328	1
96	PRKAB1	ENST00000229328	p.G88R	c.262	1.02825878	0	2
96	PRKAB1	ENST00000229328	p.N110S	c.329	0.1375066	8.267	1

96	PRKAB1	ENST00000229328	p.V193I	c.577	0.008034108	13.055	1
97	DDB1	ENST00000301764	p.E160V	c.479	0.011517728	6.44	1
97	DDB2	ENST00000256996	p.C322F	c.965	0.011517728	0	1
98	BCL2L2	ENST00000250405	p.R95H	c.284	0.404592348	1.694	1
98	BID	ENST00000317361	p.D141N	c.421	0.61813763	0	1
100	ITGA2B	ENST00000262407	p.P499H	c.1496	0.304318823	1.742	1
100	ITGA2B	ENST00000262407	p.R551W	c.1651	0.058981779	5.852	1
100	ITGA2B	ENST00000262407	p.R590Q	c.1769	0.261118145	16.907	1
100	ITGAV	ENST00000261023	p.G337D	c.1010	0.137713336	17.074	1
100	ITGB3	ENST00000559488	p.S395F	c.1184	0.241429465	18.994	1
100	ITGB3	ENST00000559488	p.F396L	c.1188	0.050552187	11.6	1
100	ITGB3	ENST00000559488	p.K410E	c.1228	0.045196656	11.744	1
100	ITGB3	ENST00000559488	p.S79F	c.236	0.316898944	0	1
101	PAK1	ENST00000278568	p.H86Y	c.256	0.00964002	6.712	1
101	PAK1	ENST00000278568	p.V87A	c.260	0.010729273	6.556	1
101	RAC3	ENST00000306897	p.P34L	c.101	0.020166542	0	1
102	CXCL12	ENST00000395794	p.C71Y	c.212	0.048227505	0	1
102	CXCR4	ENST00000409817	p.G23E	c.68	0.048227505	4.374	1
103	C8A	ENST00000361249	p.D139N	c.415	0.015061611	0	1
103	C8A	ENST00000361249	p.Y205H	c.613	0.00666971	14.429	1
103	C8B	ENST00000371237	p.G142E	c.425	0.008228469	6.935	1
103	C8B	ENST00000371237	p.M166L	c.496	0.013524042	7.191	1
104	FGA	ENST00000302053	p.E170D	c.510	0.163454589	2.82	1
104	FGA	ENST00000302053	p.D174N	c.520	0.008797287	7.195	1
104	FGA	ENST00000302053	p.R190H	c.569	0.138972263	3.237	1
104	FGA	ENST00000302053	p.V192I	c.574	0.050228937	4.644	1
104	FGB	ENST00000302068	p.K211R	c.632	0.295865327	0	1
104	FGB	ENST00000302068	p.R224C	c.670	0.029772171	9.533	1
104	FGG	ENST00000407946	p.E357V	c.1070	0.020237765	16.579	1
104	FGG	ENST00000407946	p.E163K	c.487	0.007949954	16.539	1
105	C3	ENST00000245907	p.G468A	c.1403	0.008136974	0	1
105	VSIG4	ENST00000374737	p.D121H	c.361	0.002133818	8.881	1
105	VSIG4	ENST00000374737	p.R20C	c.58	0.006028676	7.377	1
106	IL20	ENST00000367098	p.R43Q	c.128	2.003948363	0	3
106	IL20	ENST00000367098	p.E173D	c.519	0.002839061	17.006	1
106	IL20RA	ENST00000316649	p.P131S	c.391	1.001866122	10.652	1
106	IL20RA	ENST00000316649	p.P131L	c.392	1.001866122	10.652	1
106	IL20RA	ENST00000316649	p.V222I	c.664	0.010913026	8.534	1
107	NCBP1	ENST00000375147	p.E378K	c.1132	0.019898613	6.764	1

107	NCBP1	ENST00000375147	p.R329T	c.986	0.334376055	2.636	1
107	NCBP2	ENST00000321256	p.R99W	c.295	1.171868123	0	1
107	NCBP2	ENST00000321256	p.R99Q	c.296	1.171868123	0	1
107	NCBP2	ENST00000321256	p.I110M	c.330	0.014752069	9.123	1
108	SSU72	ENST00000291386	p.R185H	c.554	0.008332701	6.907	1
108	SYMPK	ENST00000245934	p.S292L	c.875	0.008332701	0	1
109	PPP2R1A	ENST00000322088	p.R221W	c.661	0.002478228	14.901	1
109	PPP2R1A	ENST00000322088	p.S256F	c.767	3.016291602	12.121	3
109	PPP2R1A	ENST00000322088	p.S256Y	c.767	3.016291602	12.121	1
109	PPP2R1A	ENST00000322088	p.W257C	c.771	0.110949548	9.301	1
109	PPP2R1A	ENST00000322088	p.R258C	c.772	4.018874794	0	2
109	PPP2R1A	ENST00000322088	p.R258H	c.773	4.018874794	0	3
109	PPP2R1A	ENST00000322088	p.R260C	c.778	0.003610598	14.357	1
109	PPP2R2A	ENST00000315985	p.M266I	c.798	0.238728725	5.938	1
110	ITGA2B	ENST00000262407	p.D263N	c.787	0.037473122	4.738	1
110	ITGB3	ENST00000559488	p.D205A	c.614	0.037473122	0	1
111	CUBN	ENST00000377833	p.A1098V	c.3293	0.012038783	6.38	1
111	CUBN	ENST00000377833	p.D1149Y	c.3445	0.002692606	8.554	1
111	GIF	ENST00000257248	p.R156G	c.466	0.014667498	0	1
112	APC	ENST00000457016	p.L1482P	c.4445	0.092869598	17.43	1
112	CTNNB1	ENST00000349496	p.R515Q	c.1544	0.06744802	14.622	1
112	CTNNB1	ENST00000349496	p.R582Q	c.1745	0.058104241	11.443	1
112	CTNNB1	ENST00000349496	p.C619Y	c.1856	1.009292044	0	2
112	CTNNBIP1	ENST00000377263	p.M29T	c.86	0.063298432	6.814	1
113	KPNB1	ENST00000290158	p.L714M	c.2140	0.009200959	0	1
113	SNUPN	ENST00000371091	p.R97W	c.289	0.009200959	6.764	1
114	IL13RA1	ENST00000371666	p.T269S	c.806	0.021249643	7.56	1
114	IL13RA1	ENST00000371666	p.N273D	c.817	0.10422985	3.301	1
114	IL13RA1	ENST00000371666	p.F275L	c.825	0.026678133	6.019	1
114	IL13RA1	ENST00000371666	p.V299F	c.895	0.011975535	7.301	1
114	IL2RG	ENST00000374202	p.E167D	c.501	0.079157876	19.907	1
114	IL4R	ENST00000395762	p.V177M	c.529	0.014533222	12.735	1
114	IL4R	ENST00000395762	p.R185C	c.553	0.12875001	0	1
114	IL4R	ENST00000395762	p.A187T	c.559	0.028742467	13.61	1
115	IL6	ENST00000404625	p.R207W	c.619	0.286161538	0	1
115	IL6R	ENST00000368485	p.R250I	c.749	0.016509643	6.269	1
115	IL6R	ENST00000368485	p.G299R	c.895	0.276736975	1.872	1
116	GNAI3	ENST00000369851	p.H213N	c.637	0.204351337	3.316	1
116	RGS2	ENST00000235382	p.S103L	c.308	0.004236311	11.463	1

116	RGS2	ENST00000235382	p.F105L	c.315	1.100765986	0	2
117	RPS20	ENST00000519807	p.R79C	c.235	1.000012742	0	2
117	RPS3	ENST00000278572	p.G15R	c.43	0.002127467	16.26	1
118	GNAI1	ENST00000351004	p.R208Q	c.623	0.382468813	8.721	1
118	GNAI1	ENST00000351004	p.D315N	c.943	0.010270231	19.862	1
118	RGS1	ENST00000367459	p.E125K	c.373	1.003264985	0	1
118	RGS1	ENST00000367459	p.E125R	c.373_374	1.003264985	0	1
118	RGS1	ENST00000367459	p.S126Y	c.377	0.005098832	16.8	1
118	RGS1	ENST00000367459	p.E134Q	c.400	0.027715851	14.34	1
118	RGS14	ENST00000408923	p.E499K	c.1495	0.196640788	11.356	1
118	RGS16	ENST00000367558	p.P127L	c.380	0.070816588	13.171	1
118	RGS16	ENST00000367558	p.E129K	c.385	0.181072466	11.492	1
119	NPPA	ENST00000376480	p.A140T	c.418	0.391807746	3.089	1
119	NPPB	ENST00000376468	p.S123F	c.368	0.197771049	4.415	1
119	NPR3	ENST00000265074	p.Y138H	c.412	2.168417299	0	3
119	NPR3	ENST00000265074	p.A159V	c.476	0.001420802	14.133	1
119	NPR3	ENST00000265074	p.Y171H	c.511	0.085723995	8.186	1
119	NPR3	ENST00000265074	p.L209P	c.626	0.010813515	10.882	1
120	CSTA	ENST00000264474	p.G75R	c.223	0.021758819	0	1
120	CTSL	ENST00000340342	p.F258L	c.774	0.009802152	6.69	1
120	CTSV	ENST00000259470	p.E306Q	c.916	0.012190538	6.372	1
121	FADD	ENST00000301838	p.L137Q	c.410	0.012056876	0	1
121	FAS	ENST00000355740	p.D228N	c.682	0.012056876	6.374	1
122	CNOT1	ENST00000317147	p.R2045W	c.6133	1.055316289	0	1
122	CNOT1	ENST00000317147	p.R2045Q	c.6134	1.055316289	0	1
122	CNOT2	ENST00000551043	p.A400V	c.1199	0.096600632	4.377	1
122	CNOT2	ENST00000551043	p.R409Q	c.1226	0.014723918	7.12	1
123	XRCC5	ENST00000392132	p.E428D	c.1284	0.0217476	5.523	1
123	XRCC6	ENST00000405878	p.V482M	c.1444	0.0217476	0	1
124	BMI1	ENST00000376663	p.R45C	c.133	0.008572906	0	1
124	RNF2	ENST00000367510	p.R26Q	c.77	0.008572906	6.866	1
125	IL5	ENST00000231454	p.M126I	c.378	0.017087683	0	1
125	IL5RA	ENST00000256452	p.R208H	c.623	0.014163027	6.146	1
125	IL5RA	ENST00000256452	p.P266S	c.796	0.003008437	8.397	1
126	MAX	ENST00000358664	p.R47W	c.139	0.002666199	8.551	1
126	MYC	ENST00000377970	p.L419M	c.1255	0.002666199	0	1
127	PIK3CA	ENST00000263967	p.K948E	c.2842	0.088904581	5.089	1
127	PIK3R1	ENST00000396611	p.RDQYL577in_frame_del	c.1728_1742	1.030266079	0	1
127	PIK3R1	ENST00000396611	p.RD577in_frame_del	c.1729_1734	1.030266079	0	1

127	PIK3R1	ENST00000396611	p.M582in_frame_del	c.1742_1744	0.031914963	10.141	1
128	IL7	ENST00000263851	p.D101H	c.301	0.006172198	0	1
128	IL7R	ENST00000303115	p.E79D	c.237	0.006172198	7.34	1
129	FLNA	ENST00000369850	p.S1899F	c.5696	0.103593113	0	1
129	GP1BA	ENST00000329125	p.R584S	c.1752	0.103593113	3.271	1
130	MAPK8	ENST00000360332	p.D112Y	c.334	0.006024493	7.479	1
130	MAPK8	ENST00000360332	p.M121I	c.363	0.075209782	3.741	1
130	NFATC3	ENST00000346183	p.P152L	c.455	0.080395832	0	1
131	CDC42	ENST00000421089	p.K208E	c.622	0.030628107	5.029	1
131	WAS	ENST00000376701	p.G239V	c.716	0.030628107	0	1
132	MAPK1	ENST00000398822	p.E81K	c.241	0.015105923	8.544	1
132	MAPK1	ENST00000398822	p.D162G	c.485	0.247110093	0	1
132	RPS6KA1	ENST00000531382	p.S728P	c.2182	0.033594416	5.182	1
132	RPS6KA1	ENST00000531382	p.S729C	c.2186	0.235211987	2.205	1
133	FGF1	ENST00000359370	p.R137W	c.409	0.080052897	0	1
133	FGFR2	ENST00000457416	p.R210Q	c.629	0.050059123	4.365	1
133	FGFR2	ENST00000457416	p.Q212K	c.634	0.00941589	6.83	1
133	SYT1	ENST00000393240	p.E141D	c.423	0.024037164	5.459	1
134	AURKB	ENST00000316199	p.R96W	c.286	0.005179398	7.593	1
134	INCENP	ENST00000394818	p.P850L	c.2549	0.005179398	0	1
135	CD3E	ENST00000361763	p.D187G	c.560	0.148202403	2.797	1
135	CD3E	ENST00000361763	p.E189Q	c.565	0.013201088	6.821	1
135	EPS8L1	ENST00000201647	p.G525E	c.1574	0.006565506	11.157	1
135	SYK	ENST00000375754	p.R175L	c.524	0.153168643	0	1
136	FGFR1	ENST00000425967	p.S461F	c.1382	1.270323805	0	2
136	FGFR1	ENST00000425967	p.S492F	c.1475	1.270323805	0	2
136	FRS2	ENST00000550389	p.R64H	c.191	0.314636065	4.412	1
136	FRS2	ENST00000550389	p.N111H	c.331	0.439047877	2.228	1
136	NTRK2	ENST00000277120	p.P514S	c.1540	0.232565123	6.659	1
137	SMAD2	ENST00000402690	p.N320H	c.958	0.088572337	0	1
137	SMAD4	ENST00000342988	p.K519N	c.1557	0.088572337	3.497	1
138	IL22	ENST00000328087	p.R73C	c.217	1.160440938	0	2
138	IL22	ENST00000328087	p.E77K	c.229	0.073194009	8.116	1
138	IL22RA1	ENST00000270800	p.G61E	c.182	0.185363859	3.642	1
138	IL22RA1	ENST00000270800	p.E90K	c.268	0.206587338	3.704	1
139	CBX3	ENST00000337620	p.W51C	c.153	0.143487802	3.801	1
139	HIST1H1E	ENST00000304218	p.R25H	c.74	1.071743901	0	1
139	HIST1H1E	ENST00000304218	p.R25P	c.74	1.071743901	0	1
140	PAK1	ENST00000278568	p.I75F	c.223	0.048127323	0	1

140	RAC3	ENST00000306897	p.V44M	c.130	0.048127323	4.377	1
141	MMP1	ENST00000315274	p.F174S	c.521	0.012751606	6.409	1
141	MMP1	ENST00000315274	p.H183R	c.548	0.06019856	4.107	1
141	MMP10	ENST00000279441	p.H227Y	c.679	0.037556791	5.305	1
141	TIMP1	ENST00000377018	p.A17T	c.49	0.095360767	0	1
141	TIMP2	ENST00000262768	p.S94F	c.282_281	0.010780153	11.879	1
142	BPTF	ENST00000321892	p.L2771M	c.8311	1.025008812	0	1
142	BPTF	ENST00000321892	p.L2771P	c.8312	1.025008812	0	1
142	CHD1	ENST00000284049	p.H329R	c.986	0.092719739	9.375	1
142	HIST1H3D	ENST00000377831	p.R3G	c.7	0.219895608	5.557	1
142	HIST1H3H	ENST00000369163	p.K5M	c.14	0.159090717	16.041	1
142	KAT6A	ENST00000406337	p.A275V	c.824	0.227017797	19.353	1
142	KMT2A	ENST00000534358	p.M1585I	c.4755	0.055058381	9.97	1
142	TRIM24	ENST00000343526	p.C844Y	c.2531	0.048211668	10.169	1
142	TRIM33	ENST00000358465	p.K904Q	c.2710	0.021484247	11.363	1
143	ARHGEF7	ENST00000375741	p.R239C	c.715	1.036701937	0	1
143	ARHGEF7	ENST00000375741	p.R239H	c.716	1.036701937	0	1
143	PAK1	ENST00000278568	p.D183in_frame_del	c.550_548	0.073403873	4.768	1
144	2-Sep	ENST00000401990	p.G251A	c.752	0.000990195	0	1
144	6-Sep	ENST00000394617	p.A218V	c.653	0.000990195	9.98	1
145	HIST3H3	ENST00000366696	p.P39L	c.116	0.001915584	0	1
145	KDM4A	ENST00000372396	p.I87V	c.259	0.001915584	9.028	1
146	CD2	ENST00000369478	p.G301R	c.901	0.005671712	0	1
146	CD2BP2	ENST00000305596	p.E288Q	c.862	0.005671712	7.462	1
147	NONO	ENST00000276079	p.F213L	c.637	0.028086098	5.154	1
147	PSPC1	ENST00000338910	p.A266S	c.796	0.028086098	0	1
148	DOCK2	ENST00000256935	p.G57D	c.170	0.006275343	7.335	1
148	DOCK2	ENST00000256935	p.P25S	c.73	0.013275481	6.244	1
148	ELMO1	ENST00000442504	p.D687Y	c.2059	0.01938739	0	1
149	KCND3	ENST00000315987	p.E81D	c.243	0.004880144	7.683	1
149	KCND3	ENST00000315987	p.F83L	c.249	0.002887433	8.443	1
149	KCNIP1	ENST00000434108	p.Q54R	c.161	0.007739612	0	1
150	RPL13A	ENST00000391857	p.R117W	c.349	0.001255173	9.639	1
150	RPL13A	ENST00000484279	p.G30S	c.88	0.000765032	10.354	1
150	RPL13A	ENST00000467825	p.W33R	c.97	0.000573865	10.767	1
150	RPL18A	ENST00000222247	p.R166C	c.496	0.002592154	0	1
151	CPA4	ENST00000222482	p.Q296K	c.886	0.002857561	0	1
151	LXN	ENST00000264265	p.A119V	c.356	0.002857561	8.451	1
152	RAP1B	ENST00000341355	p.S88F	c.263_264	0.005262631	7.57	1

152	RAP1GAP	ENST00000374763	p.L243M	c.727	0.005262631	0	1
153	EME1	ENST00000511648	p.V494I	c.1480	0.01552783	6.009	1
153	MUS81	ENST00000308110	p.R483C	c.1447	0.01552783	0	1
154	CD247	ENST00000362089	p.D84N	c.250	0.388858392	2.394	1
154	PTPRC	ENST00000442510	p.Q897H	c.2691	1.191842804	0	2
154	PTPRC	ENST00000442510	p.Q897H	c.2691	1.191842804	0	2
154	PTPRC	ENST00000442510	p.E899K	c.2695	0.011527309	9.298	1
155	NAE1	ENST00000359087	p.P446S	c.1336	0.030162421	5.067	1
155	NAE1	ENST00000359087	p.E484G	c.1451	0.011409733	6.496	1
155	UBA3	ENST00000361055	p.R47Q	c.140	0.040911126	0	1
156	MAX	ENST00000358664	p.V99I	c.295	0.019805816	0	1
156	MXD1	ENST00000264444	p.H128L	c.383	0.010097062	6.644	1
156	MXD1	ENST00000264444	p.E134K	c.400	0.009904871	6.672	1
157	CXCL12	ENST00000395794	p.P53L	c.158	0.1090017	3.263	1
157	CXCL12	ENST00000395794	p.C30R	c.88	0.05122391	4.43	1
157	CXCR4	ENST00000409817	p.S13L	c.38	0.150560512	0	1
158	NCBP1	ENST00000375147	p.V75A	c.224	0.062759398	11.252	1
158	NCBP1	ENST00000375147	p.S33C	c.98	1.00702981	0	1
158	NCBP1	ENST00000375147	p.S33F	c.98	1.00702981	0	1
158	NCBP2	ENST00000321256	p.L6Q	c.17	0.075178917	7.239	1
159	ITGAV	ENST00000261023	p.M430I	c.1290	0.012370264	6.355	1
159	ITGAV	ENST00000261023	p.Y48N	c.142	0.012722431	6.314	1
159	ITGB3	ENST00000559488	p.I291T	c.872	0.024785594	0	1
160	FST	ENST00000256759	p.G232E	c.695	0.010051676	6.647	1
160	FSTL3	ENST00000166139	p.V237M	c.709	0.007433844	7.086	1
160	INHBA	ENST00000442711	p.D405N	c.1213	0.017338633	0	1
161	ERCC1	ENST00000013807	p.F140I	c.418	0.106505512	3.231	1
161	XPA	ENST00000375128	p.G73E	c.218	0.106505512	0	1
162	SMAD2	ENST00000402690	p.R321Q	c.962	1.249610825	0	2
162	SMAD2	ENST00000402690	p.M327I	c.981	0.030732221	8.099	1
162	SMAD2	ENST00000402690	p.R330M	c.989	0.032123872	8.034	1
162	SMAD4	ENST00000342988	p.D493N	c.1477	0.38193845	2.632	1
162	SMAD4	ENST00000342988	p.R496H	c.1487	0.1752985	3.629	1
163	MAP2K5	ENST00000178640	p.P111S	c.331	0.005493723	7.508	1
163	MAPK7	ENST00000308406	p.R168Q	c.503	0.005493723	0	1
164	BPTF	ENST00000321892	p.S3011F	c.9032	0.017115994	10.899	1
164	BRD4	ENST00000263377	p.D96N	c.286	0.199988859	0	1
164	HIST1H4H	ENST00000289352	p.A16V	c.47	0.053556916	4.978	1
164	HIST1H4H	ENST00000289352	p.S2C	c.5	0.02987561	5.297	1

164	HIST1H4J	ENST00000355057	p.R4G	c.10	0.150508441	2.813	1
165	RPL21	ENST00000326092	p.R130C	c.388	6.03E-05	14.017	1
165	RPL7	ENST00000352983	p.R200C	c.598	6.03E-05	0	1
166	CP	ENST00000264613	p.G563R	c.1687	0.072955054	3.85	1
166	CP	ENST00000264613	p.D573Y	c.1717	0.055619383	4.265	1
166	MPO	ENST00000340482	p.Q391L	c.1172	0.121360513	0	1
167	MAP2K5	ENST00000178640	p.R69Q	c.206	1.036840534	0	2
167	MAP3K2	ENST00000409947	p.G52V	c.155	0.04208559	5.582	1
167	MAP3K3	ENST00000579585	p.R87G	c.259	0.032262027	5.969	1
168	SUPT4H1	ENST00000580947	p.D68G	c.203	0.223772989	5.065	1
168	SUPT5H	ENST00000432763	p.E228D	c.684	1.0347733	0	2
168	SUPT5H	ENST00000432763	p.Y230N	c.688	0.173826424	7.673	1
169	COL4A1	ENST00000375820	p.A1611V	c.4832	0.076468003	3.709	1
169	COL4A2	ENST00000360467	p.P1551T	c.4651	0.076468003	0	1
170	FLT3	ENST00000380982	p.R311Q	c.932	0.002731672	8.516	1
170	FLT3LG	ENST00000600429	p.F32L	c.96	0.002731672	0	1
171	XRCC5	ENST00000392132	p.P483S	c.1447	0.103163176	0	1
171	XRCC6	ENST00000405878	p.P438S	c.1312	0.103163176	3.277	1
172	BRK1	ENST00000256463	p.R59Q	c.176	0.008324116	17.075	1
172	BRK1	ENST00000256463	p.K70Q	c.208	1.002138312	0	2
172	WASF1	ENST00000392588	p.L83F	c.247	0.002519981	9.633	1
172	WASF1	ENST00000392588	p.R102Q	c.305	0.010053984	10.164	1
173	KLRK1	ENST00000540818	p.H153Y	c.457	0.006506061	7.264	1
173	ULBP3	ENST00000367339	p.Q100H	c.300	0.006506061	0	1
174	CHMP5	ENST00000223500	p.D184G	c.551	0.003273387	8.255	1
174	VTA1	ENST00000367630	p.D31Y	c.91	0.003273387	0	1
175	KDM1A	ENST00000542151	p.K478R	c.1433	0.021158547	0	1
175	RCOR1	ENST00000262241	p.I355V	c.1063	0.007560155	7.067	1
175	RCOR3	ENST00000419091	p.A371V	c.1112	0.005823417	7.446	1
175	RCOR3	ENST00000419091	p.N376S	c.1127	0.008070697	6.972	1
176	E2F1	ENST00000343380	p.C227F	c.680	0.007593601	0	1
176	TFDP1	ENST00000375370	p.Q229R	c.686	0.007593601	7.041	1
177	ESRRG	ENST00000366937	p.M310R	c.929	0.027632144	0	1
177	NCOA1	ENST00000348332	p.K688N	c.2064	0.01781633	5.825	1
177	NCOR2	ENST00000356219	p.A2340V	c.7019	0.010168336	6.645	1
178	CDK6	ENST00000265734	p.E18K	c.52	0.092040312	0	1
178	CDKN2A	ENST00000579122	p.N42H	c.124	0.028119942	5.244	1
178	CDKN2A	ENST00000579122	p.Y44C	c.131	0.067385199	3.929	1
179	KCNK9	ENST00000520439	p.R370H	c.1109	0.085193724	5.438	1

179	KCNK9	ENST00000520439	p.V374I	c.1120	0.179549896	2.709	1
179	MAPT	ENST00000344290	p.P548S	c.1642	0.015156132	17.752	1
179	RAF1	ENST00000442415	p.E642D	c.1926	0.176219612	2.74	1
179	SFN	ENST00000339276	p.K49N	c.147	0.326960323	0	1
179	SFN	ENST00000339276	p.E133K	c.397	0.04362411	10.018	1
179	SFN	ENST00000339276	p.D225N	c.673	0.029030156	11.688	1
180	CDH1	ENST00000261769	p.R222G	c.664	0.008980585	10.212	1
180	CDH1	ENST00000261769	p.R224H	c.671	1.116426015	0	2
180	KLRG1	ENST00000266551	p.S152L	c.455	0.238460194	3.113	1
181	IGF1	ENST00000307046	p.R98Q	c.293	2.132494098	0	3
181	IGFBP4	ENST00000269593	p.R206H	c.617	0.397482294	2.916	1
182	KMT2C	ENST00000355193	p.K4771T	c.14312	0.008206598	6.929	1
182	WDR5	ENST00000358625	p.D192N	c.574	0.008206598	0	1
183	ESR1	ENST00000440973	p.H267Y	c.799	0.069204037	3.853	1
183	SMYD2	ENST00000366957	p.E187K	c.559	0.069204037	0	1
184	TNNC1	ENST00000232975	p.G110V	c.329	0.000633543	10.629	1
184	TNNI3	ENST00000344887	p.K117R	c.350	0.003286826	8.25	1
184	TNNT2	ENST00000458432	p.E255D	c.765	0.003916221	0	1
185	PIK3CA	ENST00000263967	p.D1045V	c.3134	0.010199455	6.632	1
185	PIK3CA	ENST00000263967	p.H1048R	c.3143	0.011714776	6.43	1
185	PIK3R1	ENST00000396611	p.R590W	c.1768	0.02168036	0	1
186	UPF2	ENST00000357604	p.H844Y	c.2530	0.000879518	0	1
186	UPF3B	ENST00000276201	p.Q137E	c.409	0.000879518	10.151	1
188	KDM1A	ENST00000542151	p.E501K	c.1501	0.001266445	0	1
188	RCOR3	ENST00000419091	p.R392W	c.1174	0.001266445	9.625	1
189	ANK1	ENST00000396942	p.F917L	c.2751	0.071446146	0	1
189	SPTB	ENST00000556626	p.T1788M	c.5363	0.071446146	3.807	1
190	IFNAR1	ENST00000270139	p.T208M	c.623	0.112739987	0	1
190	IFNW1	ENST00000380229	p.C122S	c.364	0.002921046	8.57	1
190	IFNW1	ENST00000380229	p.R144K	c.431	0.110398402	3.183	1
191	KCTD7	ENST00000380828	p.A162V	c.485	0.082315358	3.709	1
191	RAB21	ENST00000261263	p.L52P	c.155	0.152936005	0	1
191	RABGEF1	ENST00000437078	p.A136V	c.407	0.082315358	3.709	1
192	APC	ENST00000457016	p.S546G	c.1636	0.02663758	10.142	1
192	APC	ENST00000457016	p.N550H	c.1648	0.119466277	0	1
192	KHDRBS1	ENST00000327300	p.E384K	c.1150	0.10086718	3.504	1
192	KHDRBS1	ENST00000327300	p.Y386C	c.1157	0.048832401	5.038	1
193	SF1	ENST00000377387	p.R146C	c.436	0.013129902	0	1
193	U2AF2	ENST00000308924	p.Y395F	c.1184	0.013129902	6.251	1

194	CALM2	ENST00000409563	p.S86Y	c.257	0.270766851	0	1
194	IQCG	ENST00000455191	p.R410W	c.1228	0.186297487	2.564	1
194	MYO1C	ENST00000359786	p.G747C	c.2239	0.014785277	6.412	1
194	MYO1C	ENST00000359786	p.L755I	c.2263	0.07788373	3.953	1
194	NOS3	ENST00000297494	p.V503M	c.1507	0.03156854	5.302	1
195	ARHGAP1	ENST00000311956	p.R291Q	c.872	0.039037379	0	1
195	CDC42	ENST00000421089	p.E137Q	c.409	0.039037379	4.679	1
196	PSMD4	ENST00000368881	p.E286Q	c.856	0.296621712	0	1
196	RAD23A	ENST00000586534	p.M75T	c.224	0.025046758	5.672	1
196	RAD23A	ENST00000586534	p.T77I	c.230	0.28244122	1.852	1
197	ANKRA2	ENST00000296785	p.E181K	c.541	0.277534615	3.473	1
197	HDAC4	ENST00000345617	p.S348L	c.1043	2.171786311	0	3
197	RFXANK	ENST00000303088	p.A133G	c.398	0.05072937	5.959	1
197	YWHAG	ENST00000307630	p.R57C	c.169	0.203926313	3.929	1
198	DAXX	ENST00000374542	p.D738H	c.2212	0.010373165	0	1
198	SUMO1	ENST00000409368	p.K16N	c.48	0.010373165	6.591	1
199	EXOSC1	ENST00000370902	p.H157Y	c.469	0.001247279	10.647	1
199	EXOSC8	ENST00000389704	p.V8M	c.22	1.00062364	0	2
200	SKP1	ENST00000353411	p.P46S	c.136	0.164258224	0	1
200	SKP1	ENST00000353411	p.L47V	c.139	0.066370426	8.577	1
200	SKP2	ENST00000274255	p.H199N	c.595	0.109289138	4.096	1
200	SKP2	ENST00000274255	p.T225I	c.674	0.128167589	3.277	1
201	IFNG	ENST00000229135	p.K57N	c.171	0.033100573	4.917	1
201	IFNGR1	ENST00000367739	p.E164K	c.490	0.033100573	0	1
202	CD3D	ENST00000300692	p.K23N	c.69	0.084310156	3.59	1
202	CD3D	ENST00000300692	p.E28K	c.82	0.010653219	8.443	1
202	CD3E	ENST00000361763	p.Y95H	c.283	0.086001738	0	1
202	CD3E	ENST00000361763	p.L114P	c.341	0.008655245	13.515	1
203	LRRRC4C	ENST00000528697	p.K65N	c.195	0.004680895	7.739	1
203	NTNG1	ENST00000370073	p.G461R	c.1381	0.004680895	0	1
204	CALM2	ENST00000409563	p.G73E	c.218	0.103736823	0	1
204	DAPK1	ENST00000469640	p.R54Q	c.161_162	0.103736823	3.269	1
205	EPHA2	ENST00000358432	p.R957C	c.2869	0.009472756	6.722	1
205	INPPL1	ENST00000298229	p.D1223G	c.3668	0.009472756	0	1
206	AXL	ENST00000301178	p.N43T	c.128	0.002200428	8.828	1
206	GAS6	ENST00000357389	p.K333N	c.999	0.002200428	0	1
207	CBLB	ENST00000264122	p.N69S	c.206	0.14077939	2.845	1
207	CBLB	ENST00000264122	p.D267N	c.799	0.023984991	6.457	1
207	UBE2D2	ENST00000398733	p.H55R	c.164	0.150685923	0	1

207	UBE2D2	ENST00000398733	p.D29N	c.85	0.011160823	12.961	1
208	MAP2K6	ENST00000590474	p.K14T	c.41	0.016142412	6.953	1
208	MAPK14	ENST00000229795	p.V158M	c.472	1.008071206	0	2
209	C8A	ENST00000361249	p.E144K	c.430	0.017950166	5.837	1
209	C8A	ENST00000361249	p.E203D	c.609	0.02653463	5.261	1
209	C8G	ENST00000224181	p.R120Q	c.359	0.043572366	0	1
210	KRIT1	ENST00000394505	p.R432C	c.1294	0.040280705	4.671	1
210	RAP1B	ENST00000341355	p.T35M	c.104	0.06539813	0	1
210	RAP1GAP	ENST00000374763	p.G289R	c.865	0.014287333	6.202	1
210	RAP1GAP	ENST00000374763	p.S311F	c.932	0.013223826	6.315	1
211	ITGAX	ENST00000562522	p.I336F	c.1006	0.158277389	0	1
211	ITGB2	ENST00000397850	p.Y137C	c.410	0.083258238	3.699	1
211	ITGB2	ENST00000397850	p.P192H	c.575	0.087535868	3.621	1
212	EFNA5	ENST00000333274	p.P123S	c.367	0.13432385	18.61	1
212	EFNA5	ENST00000333274	p.S125F	c.374	0.080520006	8.022	1
212	EPHA2	ENST00000358432	p.KL162in_frame_del	c.491_486	0.068640275	12.227	1
212	EPHA3	ENST00000336596	p.R104Q	c.311	0.051531315	15.074	1
212	EPHA3	ENST00000336596	p.D159G	c.476	0.011092643	14.614	1
212	EPHA3	ENST00000336596	p.N165S	c.494	1.004127101	0	1
212	EPHA3	ENST00000336596	p.N165K	c.495	1.004127101	0	1
213	CP	ENST00000264613	p.L666M	c.1996	0.056934754	4.15	1
213	CP	ENST00000264613	p.R864K	c.2591	0.03357803	6.569	1
213	MPO	ENST00000340482	p.P380L	c.1139	0.02270199	12.046	1
213	MPO	ENST00000340482	p.N384K	c.1152	0.067097193	0	1
214	CNTN1	ENST00000347616	p.E313K	c.937	0.004267163	19.259	1
214	CNTN1	ENST00000347616	p.N314S	c.941	0.009837993	18.047	1
214	CNTN1	ENST00000347616	p.D319Y	c.955	0.089265376	7.512	1
214	PTPRZ1	ENST00000393386	p.S204G	c.610	1.005907526	0	2
214	PTPRZ1	ENST00000393386	p.R205C	c.613	0.088032342	11.27	1
214	PTPRZ1	ENST00000393386	p.G207W	c.619	0.003723324	15.7	1
215	ESR1	ENST00000440973	p.D538G	c.1613	0.021270533	0	1
215	FN1	ENST00000354785	p.T1613N	c.4838	0.021270533	5.555	1
216	GRB14	ENST00000263915	p.H147Y	c.439	0.252921821	9.521	1
216	HRAS	ENST00000311189	p.Q61K	c.181	16.54036043	0	5
216	HRAS	ENST00000311189	p.Q61L	c.182	16.54036043	0	2
216	HRAS	ENST00000311189	p.Q61R	c.182	16.54036043	0	10
216	HRAS	ENST00000311189	p.A11D	c.32	0.151035766	7.999	1
216	HRAS	ENST00000311189	p.G12C	c.34	7.469712787	6.194	1
216	HRAS	ENST00000311189	p.G12S	c.34	7.469712787	6.194	2

216	HRAS	ENST00000311189	p.G12A	c.35	7.469712787	6.194	1
216	HRAS	ENST00000311189	p.G12D	c.35	7.469712787	6.194	4
216	HRAS	ENST00000311189	p.G13C	c.37	8.394330397	6.458	1
216	HRAS	ENST00000311189	p.G13R	c.37	8.394330397	6.458	3
216	HRAS	ENST00000311189	p.G13S	c.37	8.394330397	6.458	1
216	HRAS	ENST00000311189	p.G13D	c.38	8.394330397	6.458	1
216	HRAS	ENST00000311189	p.G13V	c.38	8.394330397	6.458	3
216	HRAS	ENST00000311189	p.D33N	c.97	0.592853736	7.038	1
216	RASA1	ENST00000274376	p.R789L	c.2366	5.108581382	2.667	1
216	RASA1	ENST00000274376	p.R789Q	c.2366	5.108581382	2.667	1
216	RASA1	ENST00000274376	p.N942H	c.2824	0.138819086	10.472	1
216	SOS1	ENST00000426016	p.E966Q	c.2896	0.04577959	12.132	1
217	CITED2	ENST00000537332	p.E245K	c.733	0.204979074	0	1
217	EP300	ENST00000263253	p.A327V	c.980	0.166398799	2.652	1
217	EP300	ENST00000263253	p.H328Y	c.982	0.05317914	4.446	1
218	NCOR2	ENST00000356219	p.I2349V	c.7045	0.007203931	0	1
218	RXRA	ENST00000481739	p.T278I	c.833	0.007203931	7.117	1
219	CDKN1A	ENST00000448526	p.R190P	c.569	0.014680161	7.545	1
219	FEN1	ENST00000305885	p.R355L	c.1064	0.146886134	2.775	1
219	PCNA	ENST00000379143	p.L37M	c.109	0.008595675	14.416	1
219	PCNA	ENST00000379143	p.D120N	c.358	0.151497522	0	1
220	CUL3	ENST00000264414	p.S50N	c.149	0.006300078	7.317	1
220	CUL3	ENST00000264414	p.S53R	c.159	0.004603732	7.772	1
220	SPOP	ENST00000393331	p.K238E	c.712	0.010846426	0	1
221	RNF2	ENST00000367510	p.I53F	c.157	0.073575524	10.921	1
221	RNF2	ENST00000367510	p.G83D	c.248	1.007625443	0	1
221	UBE2D3	ENST00000357194	p.F64L	c.192	0.086763351	7.136	1
222	IL17F	ENST00000336123	p.V68I	c.202	0.008189551	6.932	1
222	IL17RA	ENST00000319363	p.E123K	c.367	0.008189551	0	1
224	C3	ENST00000245907	p.R1254H	c.3761	0.008466609	6.884	1
224	ITGAM	ENST00000544665	p.S158Y	c.473	0.008466609	0	1
225	GH1	ENST00000323322	p.E65K	c.193	0.00994371	0	1
225	GHR	ENST00000230882	p.E138G	c.413	0.00994371	6.652	1
226	CD40	ENST00000372285	p.D265H	c.793	0.032829941	5.097	1
226	TANK	ENST00000259075	p.C183Y	c.548	0.12723333	3.016	1
226	TRAF3	ENST00000560371	p.D463N	c.1387	0.152839339	0	1
227	SDC4	ENST00000372733	p.F196L	c.588	0.089871033	3.476	1
227	SDCBP	ENST00000523483	p.A275V	c.824	0.089871033	0	1
228	TSN	ENST00000389682	p.T160N	c.479	0.001263814	9.628	1

228	TSNAX	ENST00000366639	p.L250V	c.748	0.001263814	0	1
229	EFNA5	ENST00000333274	p.W100F	c.300_299	0.009318734	7.682	1
229	EFNB2	ENST00000245323	p.W122L	c.365	0.068655162	3.873	1
229	EFNB3	ENST00000226091	p.R106H	c.317	0.001103125	9.926	1
229	EPHA4	ENST00000409938	p.E56A	c.167	0.00413323	15.608	1
229	EPHA4	ENST00000409938	p.D61N	c.181	0.074168803	0	1
230	TERF2	ENST00000254942	p.S294T	c.881	0.02109971	0	1
230	TERF2IP	ENST00000300086	p.Q308E	c.922	0.008497297	6.897	1
230	TERF2IP	ENST00000300086	p.L329I	c.985	0.012815687	6.298	1
231	INIP	ENST00000374242	p.F83S	c.248	0.082303636	8.978	1
231	INIP	ENST00000374242	p.L95R	c.284	0.069859259	19.387	1
231	INTS3	ENST00000435409	p.R346H	c.1037	1.002138491	0	2
231	INTS3	ENST00000435409	p.S389F	c.1166	0.086091345	12.706	1
231	INTS3	ENST00000435409	p.R439C	c.1315	0.062096479	17.85	1
232	BTRC	ENST00000370187	p.R321Q	c.962	0.143697825	6.789	1
232	CTNNB1	ENST00000349496	p.L31M	c.91	0.009146971	13.745	1
232	CTNNB1	ENST00000349496	p.D32H	c.94	14.00911573	0	2
232	CTNNB1	ENST00000349496	p.D32N	c.94	14.00911573	0	6
232	CTNNB1	ENST00000349496	p.D32Y	c.94	14.00911573	0	4
232	CTNNB1	ENST00000349496	p.D32G	c.95	14.00911573	0	2
232	CTNNB1	ENST00000349496	p.D32V	c.95	14.00911573	0	1
233	RPL17	ENST00000579408	p.R126H	c.377	0.00016768	12.542	1
233	RPL4	ENST00000307961	p.Q89E	c.265	0.00016768	0	1
234	PPP2CA	ENST00000481195	p.R268H	c.803	0.009868182	6.663	1
234	PPP2R5C	ENST00000422945	p.S142Y	c.425	0.009868182	0	1
235	BOC	ENST00000273395	p.S758N	c.2273	0.051904377	4.268	1
235	DHH	ENST00000266991	p.R154H	c.461	0.051904377	0	1
236	KPNA1	ENST00000344337	p.E357K	c.1069	0.003405755	8.226	1
236	KPNA1	ENST00000344337	p.T361M	c.1082	0.011892771	6.41	1
236	KPNA1	ENST00000344337	p.R395Q	c.1184	0.003457914	8.204	1
236	KPNA1	ENST00000344337	p.G326W	c.976	0.0046661	7.77	1
236	NUP50	ENST00000347635	p.R4G	c.10	0.023072152	0	1
237	CBLB	ENST00000264122	p.P910S	c.2728	0.006306258	0	1
237	CD2AP	ENST00000359314	p.E35G	c.104	0.006306258	7.309	1
238	DDB1	ENST00000301764	p.R111H	c.332	0.04746474	5.397	1
238	DDB2	ENST00000256996	p.R273C	c.817	1.02373237	0	2
239	NR1I3	ENST00000367980	p.R313L	c.938	0.013987261	6.235	1
239	PPARG	ENST00000287820	p.K432T	c.1295	0.054259805	4.223	1
239	RXRA	ENST00000481739	p.Y397C	c.1190	0.0668252	0	1

240	CXCL12	ENST00000395794	p.K75E	c.223	0.411957801	0	1
240	CXCR4	ENST00000409817	p.M28I	c.84	0.119509982	3.467	1
240	CXCR4	ENST00000409817	p.E30K	c.88	0.350600923	1.637	1
241	RBM39	ENST00000253363	p.R94H	c.281	0.020645913	6.598	1
241	TNPO1	ENST00000337273	p.L549I	c.1645	1.010322956	0	2
242	PARVA	ENST00000334956	p.R409H	c.1226	0.004388671	7.832	1
242	PXN	ENST00000267257	p.R147H	c.440	0.004388671	0	1
243	SUMO1	ENST00000409368	p.P58L	c.173	0.050625217	0	1
243	UBA2	ENST00000246548	p.P163L	c.488	0.050625217	4.304	1
244	ARHGDI A	ENST00000583868	p.D45N	c.133	0.071694884	3.918	1
244	ARHGEF11	ENST00000368194	p.E777K	c.2329	0.089276085	3.578	1
244	RHOA	ENST00000418115	p.Y34C	c.101	0.14989175	0	1
245	RPS10	ENST00000344700	p.R95P	c.284	0.001272605	0	1
245	RPS3	ENST00000278572	p.A71D	c.212	0.001272605	9.618	1
246	TCAP	ENST00000309889	p.Y81C	c.242	0.007826004	0	1
246	TTN	ENST00000589042	p.K98R	c.293	0.005431136	7.528	1
246	TTN	ENST00000589042	p.T101I	c.302	0.002420961	8.698	1
247	IL7	ENST00000263851	p.S44N	c.131	0.010521877	0	1
247	IL7R	ENST00000303115	p.K97N	c.291	0.004355059	7.852	1
247	IL7R	ENST00000303115	p.F99L	c.297	0.006220434	7.335	1
248	RPS16	ENST00000339471	p.L47V	c.139	0.000861699	12.929	1
248	RPS25	ENST00000527673	p.V100L	c.298	0.061877693	4.017	1
248	RPS5	ENST00000598495	p.E119K	c.355	0.061901887	0	1
248	RPS5	ENST00000598495	p.F20L	c.58	0.00067367	17.394	1
249	IGLL1	ENST00000330377	p.S108G	c.322	0.049790006	0	1
249	VPREB1	ENST00000403807	p.A32T	c.94	0.049790006	4.328	1
250	DKK1	ENST00000373970	p.N40K	c.120	0.198588084	3.377	1
250	DKK1	ENST00000373970	p.A41T	c.121	0.132385221	3.985	1
250	LRP6	ENST00000261349	p.W157F	c.471_470	1.159407862	0	2
251	CDC7	ENST00000428239	p.D420N	c.1258	1.004183714	0	1
251	CDC7	ENST00000428239	p.D420Y	c.1258	1.004183714	0	1
251	DBF4	ENST00000265728	p.Y233C	c.698	0.008367428	7.901	1
252	EGFR	ENST00000275493	p.G917A	c.2750	0.018058149	5.795	1
252	EGFR	ENST00000275493	p.E922K	c.2764	0.002680565	8.569	1
252	ERRFI1	ENST00000377482	p.P348Q	c.1043	0.020643864	0	1
253	EXOSC4	ENST00000316052	p.I123M	c.369	0.016504463	5.921	1
253	EXOSC7	ENST00000265564	p.E92A	c.275	0.016504463	0	1
254	GYPC	ENST00000259254	p.Y126D	c.376	0.004058043	7.945	1
254	MPP1	ENST00000393531	p.I120S	c.359	0.004058043	0	1

255	BIRC7	ENST00000217169	p.R136H	c.407	0.004328326	7.89	1
255	BIRC7	ENST00000217169	p.G137R	c.409	0.004090101	7.972	1
255	BIRC8	ENST00000426466	p.P55S	c.163	0.004580365	7.808	1
255	DIABLO	ENST00000443649	p.A56V	c.167	0.030922973	0	1
255	XIAP	ENST00000371199	p.P312F	c.934_935	0.018493358	5.775	1
256	CSNK2A1	ENST00000349736	p.S347G	c.1039	0.068897829	0	1
256	HCFC1	ENST00000369984	p.P1078L	c.3233	0.005893263	11.541	1
256	HCFC1	ENST00000369984	p.E1084K	c.3250	0.020406443	12.595	1
256	OGT	ENST00000373719	p.H568Y	c.1702	0.066460197	4.049	1
256	OGT	ENST00000373719	p.Y642H	c.1924	0.028708012	6.968	1
257	ETFA	ENST00000557943	p.I329T	c.986	0.087716983	3.511	1
257	ETFB	ENST00000354232	p.E334K	c.1000	0.087716983	0	1
258	AIMP2	ENST00000223029	p.P8T	c.22	0.008559237	0	1
258	KARS	ENST00000319410	p.Y369H	c.1105	9.85E-05	13.309	1
258	KARS	ENST00000319410	p.I131F	c.391	0.000122315	13.009	1
258	KARS	ENST00000319410	p.G177R	c.529	6.42E-05	13.926	1
258	KARS	ENST00000319410	p.K277N	c.831	0.008276147	6.917	1
259	IL13RA1	ENST00000371666	p.H69N	c.205	0.005111633	0	1
259	IL4	ENST00000231449	p.T132M	c.395	0.005111633	7.612	1
260	BMI1	ENST00000376663	p.T74S	c.221	0.008638521	0	1
260	RNF2	ENST00000367510	p.L58F	c.174	0.008638521	6.855	1
261	TSN	ENST00000389682	p.R182H	c.545	0.007429918	7.075	1
261	TSN	ENST00000389682	p.V208L	c.622	0.001790602	9.136	1
261	TSNAX	ENST00000366639	p.V206A	c.617	0.009194155	0	1
262	IL20RA	ENST00000316649	p.R192K	c.575	0.091062445	3.457	1
262	IL20RB	ENST00000329582	p.D148N	c.442	0.091062445	0	1
263	6-Sep	ENST00000394617	p.R329H	c.986	0.002887427	8.436	1
263	7-Sep	ENST00000399034	p.R148L	c.443	0.002887427	0	1
264	IGF1	ENST00000307046	p.D93N	c.277	0.080546321	5.219	1
264	IGFBP1	ENST00000275525	p.R177Q	c.530	2.026848774	0	3
265	CCNA2	ENST00000274026	p.E220K	c.658	0.045048492	0	1
265	CDKN1B	ENST00000396340	p.C29F	c.86	0.01757624	5.87	1
265	RB1	ENST00000267163	p.K873E	c.2617	0.028428054	5.161	1
266	FGA	ENST00000302053	p.C55S	c.163	0.244685413	2.031	1
266	FGB	ENST00000302068	p.C95S	c.283	0.244685413	0	1
267	AKAP13	ENST00000361243	p.R2015H	c.6044	0.081572836	5.94	1
267	ARHGEF12	ENST00000397843	p.R800I	c.2399	0.040096506	6.967	1
267	RHOA	ENST00000418115	p.E40Q	c.118	4.024281789	0	5
268	NCOA2	ENST00000452400	p.R746C	c.2236	0.030560933	6.758	1

268	NCOR1	ENST00000268712	p.N2260K	c.6780	0.0198641	18.828	1
268	NR3C1	ENST00000231509	p.S725Y	c.2174	1.009350937	0	2
268	NR3C1	ENST00000231509	p.E752K	c.2254	0.031695938	13.157	1
269	CPSF6	ENST00000266679	p.K113N	c.339	0.043956861	0	1
269	NUDT21	ENST00000300291	p.R68T	c.203	0.040261464	4.64	1
269	NUDT21	ENST00000300291	p.I165T	c.494	0.004004206	8.021	1
270	CAB39	ENST00000409788	p.F243V	c.727	0.001001932	0	1
270	STK11	ENST00000326873	p.H168R	c.503	0.001001932	9.963	1
271	BCL2L1	ENST00000420653	p.A149E	c.446	0.053775585	5.22	1
271	TP53	ENST00000445888	p.H178Q	c.534	1.031138737	0	1
271	TP53	ENST00000445888	p.R181P	c.542	0.003097545	16.21	1
271	TP53	ENST00000445888	p.HHERCS178in_frame_del	c.548_531	1.031138737	0	1
271	TP53BP2	ENST00000343537	p.P873L	c.2618	0.011777158	7.863	1
272	SMAD2	ENST00000402690	p.D300N	c.898	0.129507766	5.156	1
272	SMAD2	ENST00000402690	p.D304G	c.911	0.47875245	3.36	1
272	SMAD2	ENST00000402690	p.P305L	c.914	1.153952922	5.992	1
272	SMAD2	ENST00000402690	p.P305Q	c.914	1.153952922	5.992	1
272	SMAD3	ENST00000327367	p.R268C	c.802	2.67258227	2.629	1
272	SMAD3	ENST00000327367	p.R268H	c.803	2.67258227	2.629	2
272	SMAD4	ENST00000342988	p.R531Q	c.1592	0.042034983	11.658	1
272	SMAD4	ENST00000342988	p.L533R	c.1598	0.173860468	8.201	1
272	SMAD4	ENST00000342988	p.D537Y	c.1609	3.645542562	0	1
272	SMAD4	ENST00000342988	p.D537G	c.1610	3.645542562	0	1
272	SMAD4	ENST00000342988	p.D537V	c.1610	3.645542562	0	1
272	SMAD4	ENST00000342988	p.D537E	c.1611	3.645542562	0	1
273	FARSA	ENST00000588025	p.R243W	c.727	0.013734993	6.186	1
273	FARSB	ENST00000281828	p.H565D	c.1693	0.013734993	0	1
274	IL17F	ENST00000336123	p.Y93F	c.278	0.01135916	6.46	1
274	IL17RA	ENST00000319363	p.C126S	c.376	0.01135916	0	1
275	C19orf40	ENST00000588258	p.V91I	c.271	0.006108357	0	1
275	FANCM	ENST00000267430	p.R1914K	c.5741	0.006108357	7.355	1
276	INTS3	ENST00000435409	p.R334H	c.1001	0.075616428	3.742	1
276	INTS3	ENST00000435409	p.L135M	c.403	0.01262114	6.412	1
276	NABP2	ENST00000267023	p.E97Q	c.289	0.086482186	0	1
277	ANK1	ENST00000396942	p.R941Q	c.2822	0.142694338	3.809	1
277	SPTB	ENST00000556626	p.T1864I	c.5591	1.071347169	0	2
278	CBFB	ENST00000412916	p.R83L	c.248	0.070803402	5.405	1
278	RUNX1	ENST00000300305	p.D198N	c.592	2.023601134	0	2
278	RUNX1	ENST00000300305	p.D198G	c.593	2.023601134	0	1

279	DR1	ENST00000370267	p.K64N	c.192	0.012560172	6.315	1
279	TBP	ENST00000392092	p.R196Q	c.587	0.012560172	0	1
280	CASP7	ENST00000369321	p.R266W	c.796	0.019986496	5.717	1
280	CASP7	ENST00000369321	p.P268S	c.802	0.05227156	4.285	1
280	XIAP	ENST00000371199	p.I149M	c.447	0.070307637	0	1
281	CAND1	ENST00000545606	p.H1073L	c.3218	0.00892458	6.808	1
281	CUL4B	ENST00000404115	p.S230I	c.689	0.00892458	0	1
282	EGFR	ENST00000275493	p.S645C	c.1934	0.067078768	3.898	1
282	ERBB2	ENST00000269571	p.S649T	c.1946	0.067078768	0	1
283	BCL9	ENST00000234739	p.K187R	c.560	0.015810731	6.017	1
283	BCL9	ENST00000234739	p.I200V	c.598	0.024249651	5.388	1
283	PYGO1	ENST00000302000	p.A378D	c.1133	0.039322846	0	1
284	ATRX	ENST00000373344	p.K251N	c.753	0.016700094	0	1
284	H3F3A	ENST00000366813	p.R3C	c.7	0.016700094	5.904	1
285	ITGA4	ENST00000397033	p.Q277R	c.830	0.006385432	0	1
285	ITGB7	ENST00000267082	p.A352T	c.1054	0.006385432	7.291	1
286	AXL	ENST00000301178	p.A79V	c.236	0.040603278	4.681	1
286	AXL	ENST00000301178	p.Q83R	c.248	0.036240074	4.851	1
286	AXL	ENST00000301178	p.G89D	c.266	0.007779379	7.178	1
286	GAS6	ENST00000357389	p.E374K	c.1120	0.000367728	18.597	1
286	GAS6	ENST00000357389	p.G245D	c.734	0.080541525	0	1
287	CCNA2	ENST00000274026	p.M189L	c.565	0.069043238	4.085	1
287	CCNA2	ENST00000274026	p.P309R	c.926	0.046486533	4.68	1
287	CCNB1	ENST00000256442	p.G298V	c.893	0.131793964	3.077	1
287	CCNE1	ENST00000262643	p.I119V	c.355	0.017296962	6.136	1
287	CDK2	ENST00000553376	p.R122G	c.364	0.23065709	0	1
288	IL1RL1	ENST00000233954	p.W25C	c.75	0.050730599	5.301	1
288	IL33	ENST00000381434	p.D149H	c.445	1.025365299	0	1
288	IL33	ENST00000381434	p.D149N	c.445	1.025365299	0	1
289	BMP2	ENST00000378827	p.K383N	c.1149	0.016121697	5.969	1
289	BMPR1A	ENST00000372037	p.E104K	c.310	0.025818887	0	1
289	GDF5	ENST00000374372	p.Q489K	c.1465	0.010011832	6.665	1
290	SNRPE	ENST00000414487	p.R30Q	c.89	0.008869079	6.817	1
290	SNRPG	ENST00000454893	p.V41M	c.121	0.008869079	0	1
291	CHRNA4	ENST00000370263	p.K140E	c.418	0.014333259	0	1
291	CHRN2	ENST00000368476	p.R174C	c.520	0.004258388	7.89	1
291	CHRN2	ENST00000368476	p.S175L	c.524	0.010160176	6.627	1
292	ANXA2	ENST00000332680	p.E24K	c.70	0.010761328	0	1
292	S100A10	ENST00000368811	p.P2L	c.5	0.010761328	6.538	1

293	C8A	ENST00000361249	p.R577Q	c.1730	0.023199264	0	1
293	C8B	ENST00000371237	p.I63V	c.187	0.004280964	7.895	1
293	C8B	ENST00000371237	p.E98K	c.292	0.019077928	5.718	1
294	NEBL	ENST00000377122	p.D971Y	c.2911	0.0233085	0	1
294	XIRP2	ENST00000295237	p.P2427L	c.7280	0.0233085	5.423	1
295	ITGAX	ENST00000562522	p.R502S	c.1506_1507	0.03321106	4.924	1
295	ITGAX	ENST00000562522	p.W505C	c.1515	0.008488686	6.927	1
295	ITGB2	ENST00000397850	p.P616S	c.1846	0.04115834	0	1
296	IL22	ENST00000328087	p.F57S	c.170	0.056798632	4.138	1
296	IL22RA1	ENST00000270800	p.W208L	c.623	0.056798632	0	1
297	SKA1	ENST00000398452	p.D83Y	c.247	0.001996931	8.968	1
297	SKA3	ENST00000314759	p.M91I	c.273	0.001996931	0	1
298	SNRPB	ENST00000438552	p.K32E	c.94	0.008807816	6.827	1
298	SNRPD3	ENST00000404603	p.P6S	c.16	0.008807816	0	1
299	IGF2	ENST00000434045	p.F99L	c.295	0.01270295	0	1
299	IGF2R	ENST00000356956	p.E1544G	c.4631	0.003418025	8.206	1
299	IGF2R	ENST00000356956	p.F1638in_frame_del	c.4907_4909	0.009348026	6.746	1
300	ARHGDI1	ENST00000583868	p.S124F	c.371	0.098831095	4.347	1
300	RHOA	ENST00000418115	p.F106L	c.318	1.060411461	0	2
300	ROCK1	ENST00000399799	p.R1012Q	c.3035	0.023099694	6.471	1
301	DNMT3A	ENST00000321117	p.R736H	c.2207	1.009868182	0	2
301	DNMT3L	ENST00000270172	p.L267P	c.800	0.019736363	6.663	1
302	CCNK	ENST00000389879	p.H85Y	c.253	0.025383203	0	1
302	CDK12	ENST00000447079	p.R722C	c.2164	0.019780486	5.668	1
302	CDK12	ENST00000447079	p.F802V	c.2404	0.005827527	7.451	1
303	BIN1	ENST00000316724	p.L541H	c.1622	1.006946013	0	1
303	BIN1	ENST00000316724	p.L541R	c.1622	1.006946013	0	1
303	MYC	ENST00000377970	p.T73P	c.217	1.003805411	9.04	2
303	MYC	ENST00000377970	p.P74L	c.221	0.006305114	8.312	1
304	F2	ENST00000311907	p.A405T	c.1213	0.255450765	0	1
304	F2	ENST00000311907	p.G569E	c.1706	0.054601758	14.345	1
304	F2	ENST00000311907	p.P577S	c.1729	0.000592674	13.706	1
304	F2RL3	ENST00000248076	p.P46L	c.137	0.163593753	2.768	1
304	SERPINC1	ENST00000367698	p.S426L	c.1277	0.124462077	3.204	1
304	SERPIND1	ENST00000406799	p.T457M	c.1370	0.054241521	18.55	1
305	RAN	ENST00000448750	p.M197I	c.591	0.061767853	4.017	1
305	RANBP2	ENST00000283195	p.A1272T	c.3814	0.061767853	0	1
306	E2F1	ENST00000343380	p.V246A	c.737	0.011657251	0	1
306	E2F1	ENST00000343380	p.D294N	c.880	0.003271602	17.068	1

306	TFDP1	ENST00000375370	p.P260H	c.779	0.005514927	8.809	1
306	TFDP1	ENST00000375370	p.MA305IS	c.915_916	0.009441377	6.73	1
307	IL1A	ENST00000263339	p.A195V	c.584	0.093364922	3.694	1
307	IL1A	ENST00000263339	p.N220S	c.659	0.22443602	2.263	1
307	S100A13	ENST00000368699	p.R29Q	c.86	0.285605506	0	1
308	C1QB	ENST00000314933	p.G234D	c.701	0.031380236	4.994	1
308	C1QC	ENST00000374640	p.T191I	c.572	0.031380236	0	1
309	APITD1	ENST00000602787	p.E52K	c.154	0.022189177	0	1
309	FANCM	ENST00000267430	p.E702D	c.2106	0.022189177	5.494	1
310	CLIP1	ENST00000540338	p.W87L	c.260	0.070316155	3.83	1
310	SLAIN2	ENST00000264313	p.Y581H	c.1741	0.070316155	0	1
311	BUB1B	ENST00000412359	p.V29E	c.86	0.024774504	0	1
311	CDC20	ENST00000372462	p.R445Q	c.1334	0.024774504	5.335	1
312	PEX19	ENST00000368072	p.L21P	c.62	0.016458766	0	1
312	PEX3	ENST00000367591	p.H198R	c.593	0.016458766	5.925	1
313	IL17A	ENST00000340057	p.E83Q	c.247	0.0168647	5.9	1
313	IL17A	ENST00000340057	p.R124K	c.371	0.007178808	7.146	1
313	IL17RA	ENST00000319363	p.G171W	c.511	0.023807029	0	1
314	HIF1AN	ENST00000299163	p.I306V	c.916	0.050205875	0	1
314	TNKS2	ENST00000371627	p.V542L	c.1624	0.050205875	4.316	1
315	GH1	ENST00000323322	p.Y129C	c.386	0.060850981	4.07	1
315	GH1	ENST00000323322	p.I205M	c.615	0.023331743	5.505	1
315	GHR	ENST00000230882	p.D182A	c.545	0.081560512	0	1
316	CBL	ENST00000264033	p.K322T	c.965	0.003219383	8.279	1
316	SPRY2	ENST00000377102	p.E57G	c.170	0.003219383	0	1
317	HCFC1	ENST00000369984	p.T1092I	c.3275	0.2984227	0	1
317	HCFC1	ENST00000369984	p.T1093S	c.3277	0.10806141	6.692	1
317	OGT	ENST00000373719	p.N335T	c.1004	0.221655664	3.034	1
317	OGT	ENST00000373719	p.D396N	c.1186	0.206179978	2.585	1
318	RPL18A	ENST00000222247	p.P25T	c.73	0.001272359	9.62	1
318	RPL18A	ENST00000222247	p.P26H	c.77	0.001195502	9.71	1
318	RPL21	ENST00000326092	p.N144T	c.431	0.002464826	0	1
319	IRAK2	ENST00000256458	p.W11C	c.33	0.006381008	7.292	1
319	IRAK4	ENST00000448290	p.I53V	c.157	0.006381008	0	1
320	DLAT	ENST00000393051	p.H218D	c.652	0.029930538	0	1
320	PDK3	ENST00000441463	p.R378H	c.1133	0.018766688	5.752	1
320	PDK3	ENST00000441463	p.T383M	c.1148	0.011585987	6.458	1
321	NCF2	ENST00000367535	p.V356E	c.1067	0.014843756	0	1
321	NCF4	ENST00000248899	p.T337M	c.1010	0.014843756	6.074	1

322	S100A8	ENST00000368733	p.Q69H	c.207	0.036814905	0	1
322	S100A9	ENST00000368738	p.D65G	c.194	0.011034129	6.539	1
322	S100A9	ENST00000368738	p.E78V	c.233	0.004438122	7.862	1
322	S100A9	ENST00000368738	p.A84V	c.251	0.022090256	5.522	1
323	BTRC	ENST00000370187	p.R187W	c.559	0.028320686	5.142	1
323	SKP1	ENST00000353411	p.K80R	c.239	0.028320686	0	1
324	RND3	ENST00000375734	p.R140Q	c.419	0.105257869	0	1
324	ROCK1	ENST00000399799	p.N295K	c.885	0.105257869	3.248	1
325	HDAC4	ENST00000345617	p.P352L	c.1055	0.011958914	0	1
325	YWHAG	ENST00000307630	p.S46C	c.137	0.005150184	7.611	1
325	YWHAG	ENST00000307630	p.G174V	c.521	0.006878744	7.191	1
326	CSTA	ENST00000264474	p.L27P	c.80	0.013868927	6.172	1
326	CTSL	ENST00000340342	p.R153W	c.457	0.013868927	0	1
327	DDX6	ENST00000526070	p.R443C	c.1327	0.075154328	3.734	1
327	EDC3	ENST00000315127	p.I222V	c.664	0.075154328	0	1
328	GGA3	ENST00000245541	p.L656S	c.1967	0.114943756	3.121	1
328	RABEP1	ENST00000262477	p.A445G	c.1334	0.114943756	0	1
329	H2AFX	ENST00000530167	p.R78Q	c.233	0.010151803	0	1
330	NTRK1	ENST00000524377	p.H489Q	c.1467	0.006973023	0	1
330	SHC1	ENST00000448116	p.P151L	c.452	0.006973023	7.164	1
331	CCND1	ENST00000227507	p.F108L	c.322	0.036498981	0	1
331	CDK4	ENST00000257904	p.G48in_frame_del	c.134_132	0.036498981	4.776	1
332	C5	ENST00000223642	p.S458T	c.1372	0.019130256	0	1
332	C6	ENST00000263413	p.E170K	c.508	0.019130256	5.708	1
333	PPP2R1A	ENST00000322088	p.R28C	c.82	1.003433748	0	2
333	PPP2R2A	ENST00000315985	p.R179Q	c.536	0.006867497	8.186	1
334	EIF4E	ENST00000505992	p.R128C	c.382	1.003127011	0	1
334	EIF4E	ENST00000505992	p.R128H	c.383	1.003127011	0	1
334	EIF4G1	ENST00000352767	p.E429Q	c.1285	0.006254022	8.321	1
335	LY96	ENST00000284818	p.D101H	c.301	1.19039356	0	1
335	LY96	ENST00000284818	p.D101N	c.301	1.19039356	0	1
335	TLR4	ENST00000355622	p.V338A	c.1013	0.018032422	6.919	1
335	TLR4	ENST00000355622	p.R264K	c.791	0.328167086	2.628	1
335	TLR4	ENST00000355622	p.A291P	c.871	0.044185482	5.618	1
336	TP53BP2	ENST00000343537	p.S1030I	c.3089	0.052954363	0	1
336	TP73	ENST00000378295	p.P195L	c.584	0.002922917	8.489	1
336	TP73	ENST00000378295	p.D202N	c.604	0.050310727	4.317	1
337	PPP2CA	ENST00000481195	p.V126A	c.377	0.025225034	0	1
337	PPP2R5C	ENST00000422945	p.P330S	c.988	0.025225034	5.309	1

338	HIST2H3D	ENST00000331491	p.A8V	c.23	0.008375559	6.906	1
338	HIST2H3D	ENST00000331491	p.R9C	c.25	0.004483932	7.813	1
338	SPIN1	ENST00000375859	p.D173H	c.517	0.012785331	0	1
339	FSHB	ENST00000533718	p.F124L	c.370	0.006853231	0	1
339	FSHR	ENST00000406846	p.E34K	c.100	0.006853231	7.189	1
340	RPL23A	ENST00000394938	p.K77in_frame_del	c.223_225	1.00108437	0	2
340	RPL23A	ENST00000394938	p.I78T	c.233	0.007329157	16.994	1
340	RPL23A	ENST00000394938	p.R79C	c.235	0.013999246	16.053	1
340	RPL7A	ENST00000323345	p.R53S	c.157	0.023187639	9.879	1
341	BCL6	ENST00000232014	p.L112P	c.335	0.010554485	0	1
341	BCOR	ENST00000378444	p.W509C	c.1527	0.010554485	6.566	1
342	SUPT4H1	ENST00000580947	p.A62V	c.185	0.010194961	6.616	1
342	SUPT5H	ENST00000432763	p.T192S	c.574	0.010194961	0	1
343	ITGAX	ENST00000562522	p.R426C	c.1276	1.029725816	0	1
343	ITGAX	ENST00000562522	p.R426S	c.1276	1.029725816	0	1
343	ITGB2	ENST00000397850	p.E234Q	c.700	0.042487163	5.563	1
343	ITGB2	ENST00000397850	p.D265Y	c.793	0.017327153	6.866	1
344	RPL18	ENST00000550645	p.G84E	c.251	0.000694374	0	1
344	RPL4	ENST00000307961	p.M284T	c.851	0.000694374	10.492	1
345	CHMP6	ENST00000572778	p.P153L	c.458	0.016299822	5.939	1
345	VPS4A	ENST00000254950	p.A28V	c.83	0.016299822	0	1
346	CSF3	ENST00000225474	p.A144S	c.430	0.008986655	6.798	1
346	CSF3R	ENST00000373103	p.Q197H	c.591	0.008986655	0	1
347	CD180	ENST00000256447	p.G110E	c.329	0.000703091	10.474	1
347	LY86	ENST00000230568	p.I72T	c.215	0.000703091	0	1
348	RAN	ENST00000448750	p.H48Y	c.142	0.043128591	11.546	1
348	RAN	ENST00000448750	p.T50I	c.149	0.271544748	3.772	1
348	RANBP2	ENST00000283195	p.R1203C	c.3607	1.082361218	0	2
348	RANBP2	ENST00000283195	p.R1236L	c.3707	0.176118099	6.824	1
349	KPNB1	ENST00000290158	p.Y529C	c.1586	0.002941974	9.409	1
349	SNAI1	ENST00000244050	p.R243W	c.727	1.001470987	0	1
349	SNAI1	ENST00000244050	p.R243Q	c.728	1.001470987	0	1
350	CCNC	ENST00000520429	p.K96T	c.287	0.114209319	0	1
350	CDK8	ENST00000381527	p.S60P	c.178	0.04448022	4.592	1
350	CDK8	ENST00000381527	p.R65K	c.194	0.075761718	3.781	1
351	SMAD3	ENST00000327367	p.R243C	c.727	0.083562531	3.581	1
351	SMAD4	ENST00000342988	p.E337K	c.1009	0.083562531	0	1
352	SKA1	ENST00000398452	p.V48I	c.142	0.006002569	0	1
352	SKA2	ENST00000330137	p.S55P	c.163	0.005193098	7.656	1

352 SKA3	ENST00000314759	p.H48Y	c.142	0.001279488	9.903	1
353 IL4R	ENST00000395762	p.V490I	c.1468	0.006104124	0	1
353 IRS1	ENST00000305123	p.E251K	c.751	0.006104124	7.356	1
354 NGF	ENST00000369512	p.E132K	c.394	1.042920962	0	2
354 NGF	ENST00000369512	p.R224Q	c.671	0.007416939	11.745	1
354 NTRK1	ENST00000524377	p.H298Q	c.894	0.092093496	4.552	1
355 KPNB1	ENST00000290158	p.N285D	c.853	0.170698993	0	1
355 SNAI1	ENST00000244050	p.R220C	c.658	0.007637217	7.252	1
355 SNAI1	ENST00000244050	p.R247P	c.740	0.085581299	3.674	1
355 SNUPN	ENST00000371091	p.R69H	c.206	0.093077117	3.543	1
356 ARL1	ENST00000551671	p.R19K	c.56	0.019937701	0	1
356 GOLGA4	ENST00000356847	p.R2204C	c.6610	0.000605595	10.717	1
356 GOLGA4	ENST00000356847	p.E2205Q	c.6613	0.01935509	5.692	1
357 NAE1	ENST00000359087	p.L79V	c.235	0.017627846	5.826	1
357 UBA3	ENST00000361055	p.W34L	c.101	0.017627846	0	1
358 BCKDHA	ENST00000595085	p.T245M	c.734	0.132650803	0	1
358 BCKDHB	ENST00000356489	p.E163K	c.487	0.123679146	3.03	1
358 BCKDHB	ENST00000356489	p.Y167C	c.500	0.011474875	6.612	1
359 IL2	ENST00000226730	p.M43I	c.129	0.11786669	0	1
359 IL2RB	ENST00000216223	p.R41T	c.122	0.021380008	5.683	1
359 IL2RB	ENST00000216223	p.H159N	c.475	0.107733118	3.357	1
359 IL2RG	ENST00000374202	p.R205I	c.614	0.009054464	10.281	1
361 CD180	ENST00000256447	p.N228T	c.683	1.000984037	0	2
361 LY86	ENST00000230568	p.E103G	c.308	0.001968074	9.989	1
362 CLIP1	ENST00000540338	p.R1416C	c.4246	0.148033951	2.756	1
362 DCTN1	ENST00000361874	p.Q95H	c.285	0.148033951	0	1
363 MAP2K5	ENST00000178640	p.SGA26in_frame_delR	c.78_83	0.089808761	3.477	1
363 MAPK7	ENST00000308406	p.P211S	c.631	0.089808761	0	1
364 ENY2	ENST00000521688	p.K30R	c.89	0.047815968	0	1
364 MCM3AP	ENST00000397708	p.R1179H	c.3536	0.020596262	5.641	1
364 MCM3AP	ENST00000397708	p.Q1227H	c.3681	0.028332961	5.17	1
365 F3	ENST00000334047	p.C81F	c.242	0.045562793	4.456	1
365 F7	ENST00000375581	p.T143M	c.428	0.045562793	0	1
366 UBE2N	ENST00000550657	p.R70L	c.209	0.040838231	0	1
366 UBE2N	ENST00000550657	p.N31K	c.93	0.008347708	13.083	1
366 UBE2V2	ENST00000518360	p.D46G	c.137	0.027096072	5.226	1
366 UBE2V2	ENST00000523111	p.R11H	c.32	0.022607725	6.158	1
367 ERCC1	ENST00000013807	p.L285M	c.853	0.117521775	3.089	1
367 ERCC4	ENST00000311895	p.E840K	c.2518	0.117521775	0	1

368	DNMT3A	ENST00000321117	p.A741V	c.2222	0.002555817	0	1
368	DNMT3L	ENST00000270172	p.G275S	c.823	0.002555817	8.612	1
369	KAT8	ENST00000448516	p.G347S	c.1039	0.001208877	9.71	1
369	KAT8	ENST00000448516	p.L400M	c.1198	0.001031624	9.939	1
369	KAT8	ENST00000448516	p.W192S	c.575	0.011479382	6.448	1
369	MSL1	ENST00000398532	p.V475I	c.1423	0.013666761	0	1
370	RNASEH2A	ENST00000221486	p.G292C	c.874	0.00337944	8.209	1
370	RNASEH2B	ENST00000336617	p.G83C	c.247	0.00337944	0	1
371	ICAM1	ENST00000264832	p.M91T	c.272	0.016700094	5.904	1
371	ITGAL	ENST00000356798	p.T231A	c.691	0.016700094	0	1
372	ARRDC3	ENST00000265138	p.E344K	c.1030	0.2738673	1.924	1
372	NEDD4	ENST00000508342	p.W868S	c.2603	0.302777305	0	1
372	SCNN1A	ENST00000360168	p.P701L	c.2102	0.049598894	4.671	1
373	RPL13A	ENST00000391857	p.R61W	c.181	0.006702736	7.247	1
373	RPL13A	ENST00000467825	p.T64N	c.191	0.018280716	5.783	1
373	RPL3	ENST00000216146	p.R261H	c.782	0.024744336	0	1
374	RPS4X	ENST00000316084	p.D151N	c.451	0.033749267	0	1
374	RPS6	ENST00000380394	p.R216K	c.647	0.033749267	4.889	1
375	PTH1R	ENST00000449590	p.V419I	c.1255	0.07209285	4.794	1
375	PTHLH	ENST00000354417	p.R57Q	c.170	1.036046425	0	2
376	RPA2	ENST00000313433	p.G155W	c.463	0.006633564	7.236	1
376	RPA3	ENST00000223129	p.V118M	c.352	0.006633564	0	1
377	IRAK4	ENST00000448290	p.R12C	c.34	0.019011287	5.717	1
377	MYD88	ENST00000417037	p.F49L	c.147	0.019011287	0	1
378	TGFBR1	ENST00000552516	p.K91N	c.273	0.035255692	0	1
378	TGFBR2	ENST00000359013	p.D166in_frame_del	c.495_497	0.035255692	4.826	1
379	RAD1	ENST00000382038	p.E169K	c.505	0.117440344	0	1
379	RAD9A	ENST00000307980	p.R85C	c.253	0.117440344	3.09	1
380	C3	ENST00000245907	p.G262R	c.784	0.006587743	0	1
380	VSIG4	ENST00000374737	p.R85C	c.253	0.006587743	7.246	1
381	BMI1	ENST00000376663	p.T5M	c.14	0.010216182	6.613	1
381	RNF2	ENST00000367510	p.P115S	c.343	0.010216182	0	1
382	CGA	ENST00000369582	p.C31Y	c.92	0.012107124	6.368	1
382	CGB8	ENST00000448456	p.F4S	c.11	0.012107124	0	1
383	CSTA	ENST00000264474	p.E15D	c.45	0.0078125	0	1
383	CTSB	ENST00000453527	p.H269Q	c.807	0.0078125	7	1
384	CBLB	ENST00000264122	p.R911C	c.2731	0.013461659	6.215	1
384	SH3KBP1	ENST00000397821	p.Q13K	c.37	0.013461659	0	1
385	DNMT3A	ENST00000321117	p.R720H	c.2159	0.033475404	8.678	1

385 DNMT3A	ENST00000321117	p.R729W	c.2185	2.095804869	0	1
385 DNMT3A	ENST00000321117	p.R729Q	c.2186	2.095804869	0	2
385 DNMT3L	ENST00000270172	p.F261L	c.783	0.306240843	3.421	1
386 ATXN2	ENST00000377617	p.Q928H	c.2784	0.035550163	0	1
386 PABPC1	ENST00000318607	p.R565W	c.1693	0.035550163	4.814	1
387 H2AFY	ENST00000510038	p.T175I	c.524	0.051679474	6.1	1
387 SPOP	ENST00000393331	p.Y87S	c.260	0.008290971	13.076	1
387 SPOP	ENST00000393331	p.W131G	c.391	2.014694447	0	1
387 SPOP	ENST00000393331	p.W131R	c.391	2.014694447	0	1
387 SPOP	ENST00000393331	p.W131C	c.393	2.014694447	0	1
388 PABPC1	ENST00000318607	p.E557G	c.1670	0.020832792	0	1
388 PAIP1	ENST00000306846	p.S143R	c.429	0.020832792	5.585	1
389 RPS21	ENST00000370592	p.K41T	c.122	0.000959121	11.026	1
389 RPSA	ENST00000443003	p.R196C	c.586	1.00047956	0	1
389 RPSA	ENST00000443003	p.R196H	c.587	1.00047956	0	1
390 RPL11	ENST00000374550	p.R146H	c.437	8.36E-05	13.546	1
390 RPL5	ENST00000370321	p.T154I	c.461	8.36E-05	0	1
392 PDE6D	ENST00000287600	p.R48H	c.143	0.009999003	6.644	1
392 RPGR	ENST00000378505	p.R323C	c.967	0.009999003	0	1
393 IL17F	ENST00000336123	p.E114G	c.341	0.008104843	6.947	1
393 IL17RA	ENST00000319363	p.E247Q	c.739	0.008104843	0	1
394 NOTCH1	ENST00000277541	p.R1937H	c.5810	0.007758535	0	1
394 RBPJ	ENST00000342295	p.E447Q	c.1339	0.007758535	7.01	1
395 OSBP	ENST00000263847	p.N371H	c.1111	0.011319861	0	1
395 VAPA	ENST00000340541	p.R57P	c.170	0.011319861	6.465	1
396 C3	ENST00000245907	p.P1662H	c.4985	0.1209662	0	1
396 CFB	ENST00000425368	p.S351L	c.1052	0.103698733	3.297	1
396 CFB	ENST00000425368	p.S278T	c.832	0.021179137	5.701	1
397 CADM1	ENST00000331581	p.P91S	c.271	1.027212094	0	2
397 CRTAM	ENST00000227348	p.S46F	c.137	0.030725655	6.033	1
397 CRTAM	ENST00000227348	p.Q49K	c.144_145	0.024063233	6.388	1
398 GTF2A2	ENST00000396060	p.C68F	c.203	0.012770865	7.291	1
398 TBP	ENST00000392092	p.R186C	c.556	1.006385432	0	2
399 MMP2	ENST00000219070	p.K595N	c.1785	0.0147924	6.079	1
399 TIMP2	ENST00000262768	p.D216N	c.646	0.0147924	0	1
400 CENPA	ENST00000335756	p.A93T	c.277	0.009712107	0	1
400 HJURP	ENST00000411486	p.F44L	c.132	0.009712107	6.686	1
401 BCAR1	ENST00000418647	p.Y793C	c.2378	0.019545767	5.677	1
401 SH2D3C	ENST00000314830	p.P545L	c.1634	0.019545767	0	1

402 SF3A1	ENST00000215793	p.T170M	c.509	0.18737495	0	1
402 SF3A3	ENST00000373019	p.F84L	c.252	0.18737495	2.416	1
403 RPL17	ENST00000579408	p.D50Y	c.148	2.86E-05	15.093	1
403 RPL3	ENST00000216146	p.K124T	c.371	2.86E-05	0	1
404 ASF1A	ENST00000229595	p.S59F	c.176	0.008206598	0	1
404 HIRA	ENST00000340170	p.R453Q	c.1358	0.008206598	6.929	1
405 E2F1	ENST00000343380	p.E280Q	c.838	0.080772052	0	1
405 RB1	ENST00000267163	p.R857H	c.2570	0.080772052	3.63	1
406 ILK	ENST00000420936	p.H77N	c.229	0.036004705	0	1
406 LIMS2	ENST00000324938	p.E83G	c.248	0.023764807	5.413	1
406 LIMS2	ENST00000324938	p.F96V	c.286	0.012828263	6.318	1
407 SMAD3	ENST00000327367	p.R420H	c.1259	0.022498927	0	1
407 SMAD4	ENST00000342988	p.A406T	c.1216	0.022498927	5.474	1
408 IL1B	ENST00000263341	p.L145F	c.433	0.014001203	0	1
408 IL1R1	ENST00000233946	p.E28K	c.82	0.010052809	6.642	1
408 IL1R2	ENST00000332549	p.Q140H	c.420	0.004028263	7.97	1
409 ITGA2B	ENST00000262407	p.A728V	c.2183	1.01766454	0	1
409 ITGA2B	ENST00000262407	p.A728Y	c.2183_2182	1.01766454	0	1
409 ITGB3	ENST00000559488	p.S411Y	c.1232	0.03532908	5.823	1
410 KIT	ENST00000288135	p.I571K	c.1712	0.142793281	2.808	1
410 SOCS6	ENST00000397942	p.R476Q	c.1427	0.142793281	0	1
411 CNTN1	ENST00000347616	p.P233T	c.697	0.002614952	8.579	1
411 PTPRZ1	ENST00000393386	p.I66M	c.198	0.002614952	0	1
412 CYP11A1	ENST00000268053	p.R466Q	c.1398_1397	0.024586326	5.346	1
412 FDX1	ENST00000260270	p.T109S	c.326	0.024586326	0	1
413 FST	ENST00000256759	p.E157G	c.470	0.008644511	6.854	1
413 INHBA	ENST00000442711	p.P342L	c.1025	0.008644511	0	1
414 ARHGEF11	ENST00000368194	p.E901K	c.2701	0.045689295	5.452	1
414 RHOA	ENST00000418115	p.R5W	c.13	1.022844648	0	1
414 RHOA	ENST00000418115	p.R5Q	c.14	1.022844648	0	1
415 ITGA5	ENST00000293379	p.R358W	c.1072	1.069830446	0	2
415 ITGB1	ENST00000374956	p.G387D	c.1160	0.139660892	3.84	1
416 FOXP3	ENST00000557224	p.R422W	c.1264	0.006679705	0	1
416 NFATC2	ENST00000396009	p.K664N	c.1992	0.006679705	7.226	1
417 RNF41	ENST00000345093	p.R213H	c.638	0.084553014	3.564	1
417 USP8	ENST00000396444	p.Q211E	c.631	0.084553014	0	1
418 F2	ENST00000311907	p.G499R	c.1495	0.059498619	4.071	1
418 F2R	ENST00000319211	p.D50N	c.148	0.059498619	0	1
420 PLXNC1	ENST00000258526	p.A216T	c.646	0.003993861	7.968	1

420	SEMA7A	ENST00000261918	p.E273G	c.818	0.003993861	0	1
421	CAB39L	ENST00000347776	p.R141S	c.421	1.002374764	9.718	1
421	CAB39L	ENST00000347776	p.R141H	c.422	1.002374764	9.718	1
421	STK24	ENST00000376547	p.A134T	c.400	1.002374764	0	2
422	MYLIP	ENST00000356840	p.M388T	c.1163	0.003235042	8.272	1
422	UBE2D1	ENST00000373910	p.K101N	c.303	0.003235042	0	1
423	DOCK2	ENST00000256935	p.R1449C	c.4345	0.024231038	0	1
423	RAC1	ENST00000356142	p.P34S	c.100	0.024231038	5.367	1
424	C3	ENST00000245907	p.E1032D	c.3096	0.059750337	0	1
424	CFH	ENST00000367429	p.E1175D	c.3525	0.012391853	6.402	1
424	CR2	ENST00000367057	p.T54A	c.160	0.023147895	5.486	1
424	CR2	ENST00000367057	p.R33Q	c.98	0.026487001	5.287	1
425	CASC3	ENST00000264645	p.R245H	c.734	0.001414983	0	1
425	EIF4A3	ENST00000269349	p.H158L	c.473	0.001414983	9.465	1
426	SKA2	ENST00000330137	p.S76T	c.227	0.001821067	0	1
426	SKA3	ENST00000314759	p.N69T	c.206	0.001821067	9.101	1
427	PRKAA2	ENST00000371244	p.R407Q	c.1220	1.002061628	0	2
427	PRKAB1	ENST00000229328	p.A241V	c.722	0.004123257	8.922	1
428	MMP10	ENST00000279441	p.G168R	c.502	1.013480334	0	1
428	MMP10	ENST00000279441	p.G168E	c.503	1.013480334	0	1
428	TIMP2	ENST00000262768	p.I66M	c.198	0.026960667	6.213	1
429	MYO5B	ENST00000285039	p.P1675H	c.5024	0.01159784	0	1
429	RAB11A	ENST00000261890	p.R129H	c.386	0.01159784	6.43	1
430	ITGAX	ENST00000562522	p.R520H	c.1559	1.00836163	0	2
430	ITGB2	ENST00000397850	p.D300H	c.898	0.016723261	6.902	1
431	FSTL3	ENST00000166139	p.C222Y	c.665	0.00411184	7.926	1
431	INHBA	ENST00000442711	p.W338R	c.1012	0.00411184	0	1
432	TNNI3	ENST00000344887	p.H101Y	c.301	0.003184684	18.793	1
432	TNNI3	ENST00000344887	p.R103H	c.308	1.000899577	0	1
432	TNNI3	ENST00000344887	p.R103L	c.308	1.000899577	0	1
432	TNNT2	ENST00000458432	p.K219in_frame_del	c.658_656	0.004249938	10.122	1
433	CD180	ENST00000256447	p.N41H	c.121	0.00211372	0	1
433	LY86	ENST00000230568	p.W27G	c.79	0.00211372	8.886	1
434	SNF8	ENST00000502492	p.M36L	c.106	0.011882647	0	1
434	VPS36	ENST00000378060	p.E193A	c.578	0.011882647	6.395	1
435	ASF1A	ENST00000229595	p.V92I	c.274	0.056250121	4.152	1
435	TAF1	ENST00000449580	p.D1416E	c.4248	0.056250121	0	1
436	SNRPB	ENST00000438552	p.S79L	c.236	0.029056404	5.105	1
436	SNRPD1	ENST00000300413	p.R61Q	c.182	0.029056404	0	1

437	ITGAX	ENST00000562522	p.S930I	c.2789	0.013248749	0	1
437	ITGB2	ENST00000397850	p.G617S	c.1849	0.013248749	6.238	1
438	MAX	ENST00000358664	p.R60Q	c.179	5.003153129	0	5
438	MAX	ENST00000358664	p.R60in_frame_del	c.180_178	5.003153129	0	1
438	MYC	ENST00000377970	p.E384K	c.1150	0.018918775	8.309	1
439	COL4A1	ENST00000375820	p.R1516Q	c.4547	0.044687031	0	1
439	COL4A2	ENST00000360467	p.G1632E	c.4895	0.044687031	4.484	1
440	FST	ENST00000256759	p.V44I	c.130	0.030479858	0	1
440	INHBA	ENST00000442711	p.G311D	c.932	0.030479858	5.036	1
441	GINS2	ENST00000253462	p.T172M	c.515	0.080436828	0	1
441	GINS3	ENST00000426538	p.P15S	c.43	0.080436828	3.636	1
442	CCNT1	ENST00000261900	p.F146C	c.437	0.015335298	0	1
442	CDK9	ENST00000373265	p.P177S	c.529	0.015335298	6.027	1
443	ARRDC3	ENST00000265138	p.Y349C	c.1046	0.01076879	0	1
443	NEDD4	ENST00000508342	p.W846F	c.2538_2537	0.01076879	6.537	1
444	CD80	ENST00000264246	p.K70N	c.210	0.027318082	5.194	1
444	CTLA4	ENST00000302823	p.L141P	c.422	0.027318082	0	1
445	PKIA	ENST00000396418	p.R16T	c.47	0.090747392	3.462	1
445	PRKACA	ENST00000308677	p.P244L	c.731	0.090747392	0	1
446	DDB1	ENST00000301764	p.R188Q	c.563	1.014150531	0	2
446	DDB2	ENST00000256996	p.E33Q	c.97	0.028301062	6.143	1
447	AFF4	ENST00000265343	p.133in_frame_insS	c.400_399	0.00042126	0	1
447	CDK9	ENST00000373265	p.D422A	c.1265	0.00042126	11.213	1
448	RBP4	ENST00000371464	p.G118E	c.353	0.009156424	0	1
448	TTR	ENST00000237014	p.S120Y	c.359	0.009156424	6.771	1
449	NAE1	ENST00000359087	p.A337T	c.1009	0.133230842	2.908	1
449	UBA3	ENST00000361055	p.R244W	c.730	0.133230842	0	1
450	COL4A1	ENST00000375820	p.K1643E	c.4927	0.010783729	6.535	1
450	COL4A2	ENST00000360467	p.P1585T	c.4753	0.010783729	0	1
451	KIT	ENST00000288135	p.D72E	c.216	0.005966084	0	1
451	KITLG	ENST00000228280	p.K128N	c.384	0.005966084	7.389	1
452	ALB	ENST00000295897	p.E301K	c.901	0.138312169	2.854	1
452	B2M	ENST00000544417	p.E94K	c.280	0.138312169	0	1
453	NFKB1	ENST00000226574	p.R57C	c.169	0.198196034	2.335	1
453	TXN	ENST00000374517	p.T30M	c.89	0.198196034	0	1
454	F3	ENST00000334047	p.E127D	c.381	0.038154579	0	1
454	F7	ENST00000375581	p.Q368K	c.1102	0.038154579	4.712	1
455	C11orf30	ENST00000524767	p.R18I	c.53	2.006125316	0	3
455	CBX1	ENST00000393408	p.S141F	c.422	0.018375948	7.351	1

456	IL6	ENST00000420258	p.E191K	c.571	0.010019817	0	1
456	IL6ST	ENST00000336909	p.K256Q	c.766	0.010019817	6.641	1
457	GCC2	ENST00000309863	p.R1495P	c.4484	9.50E-05	13.361	1
457	RAB6A	ENST00000310653	p.A70V	c.209	9.50E-05	0	1
458	C5	ENST00000223642	p.K1200N	c.3600	0.020206738	12.866	1
458	C5	ENST00000223642	p.R1206C	c.3616	2.006897519	0	3
458	C6	ENST00000263413	p.T674N	c.2021	0.040095584	7.208	1
459	AGT	ENST00000366667	p.R116C	c.346	0.066109435	0	1
459	REN	ENST00000272190	p.A182V	c.545	0.066109435	3.919	1
460	RPS14	ENST00000312037	p.L76F	c.228	0.000169785	12.524	1
460	RPS5	ENST00000598495	p.N224S	c.671	0.000169785	0	1
461	IFNAR1	ENST00000270139	p.N507H	c.1519	0.048127323	4.377	1
461	TYK2	ENST00000525621	p.G535D	c.1604	0.048127323	0	1
462	IL17A	ENST00000340057	p.L76F	c.226	0.007406461	7.077	1
462	IL17RA	ENST00000319363	p.N179H	c.535	0.007406461	0	1
463	ERCC1	ENST00000013807	p.A220T	c.658	0.228774792	2.128	1
463	ERCC4	ENST00000311895	p.T885M	c.2654	0.228774792	0	1
464	CALCRL	ENST00000392370	p.F92L	c.274	0.006977858	7.163	1
464	RAMP1	ENST00000254661	p.V111M	c.331	0.006977858	0	1
465	CHRNA4	ENST00000370263	p.G207N	c.620_619	0.014338123	6.124	1
465	CHRN2	ENST00000368476	p.K156N	c.468	0.014338123	0	1
466	LCMT1	ENST00000399069	p.E304K	c.910	0.154320326	0	1
466	PPP2CA	ENST00000481195	p.Y265N	c.793	0.154320326	2.696	1
467	IGF1	ENST00000307046	p.F71C	c.212	0.073658713	0	1
467	IGFBP4	ENST00000269593	p.H193Y	c.577	0.073658713	3.763	1
468	E2F1	ENST00000343380	p.R252C	c.754	0.002586111	0	1
468	TFDP1	ENST00000375370	p.R302Q	c.905	0.002586111	8.595	1
469	PRM1	ENST00000312511	p.S29N	c.86	0.012516717	0	1
469	PRM2	ENST00000435245	p.R80C	c.238	0.012516717	6.32	1
470	KPNB1	ENST00000290158	p.G391V	c.1172	0.002861525	0	1
470	SNAI1	ENST00000244050	p.R264H	c.791	0.002861525	8.449	1
471	RPL21	ENST00000326092	p.V25A	c.74	5.54E-05	14.14	1
471	RPL5	ENST00000370321	p.G71E	c.212	5.54E-05	0	1
472	GRIN2A	ENST00000396573	p.E1461K	c.4381	0.002104948	8.892	1
472	PTPN4	ENST00000263708	p.D580Y	c.1738	0.002104948	0	1
473	CNOT1	ENST00000317147	p.R1308H	c.3923	0.009017855	7.793	1
473	CNOT7	ENST00000361272	p.R28C	c.82	1.004508927	0	2
474	CALM1	ENST00000447653	p.L71F	c.213	0.098892163	3.338	1
474	DAPK1	ENST00000469640	p.R53W	c.157	0.098892163	0	1

475 IL2	ENST00000226730	p.V111L	c.331	1.054978067	0	1
475 IL2	ENST00000226730	p.V111A	c.332	1.054978067	0	1
475 IL2RB	ENST00000216223	p.P65L	c.194	0.109956134	4.185	1
476 S100A13	ENST00000368699	p.H48Y	c.142	0.211393072	0	1
476 SYT1	ENST00000393240	p.A171T	c.511	0.211393072	2.242	1
477 GLYR1	ENST00000321919	p.H219Y	c.655	0.007657027	7.029	1
477 KDM1B	ENST00000388870	p.A566V	c.1697	0.007657027	0	1
478 CCND1	ENST00000227507	p.E135D	c.405	0.077535456	0	1
478 CDK4	ENST00000257904	p.R82Q	c.245	0.077535456	3.689	1
479 VPS16	ENST00000380445	p.N663H	c.1987	0.001805983	9.113	1
479 VPS33A	ENST00000267199	p.P455L	c.1364	0.001805983	0	1
480 S100A8	ENST00000368733	p.N10K	c.30	0.163572259	2.612	1
480 S100A9	ENST00000368738	p.S90F	c.269	0.163572259	0	1
481 LGR4	ENST00000379214	p.R156W	c.466	1.004706923	0	2
481 RSPO1	ENST00000401068	p.K113T	c.338	0.009413846	7.731	1
482 HGF	ENST00000222390	p.R539Q	c.1616	0.022328033	0	1
482 MET	ENST00000318493	p.D414N	c.1240	0.022328033	5.485	1
483 ITGAX	ENST00000562522	p.R830H	c.2489	0.017003788	0	1
483 ITGB2	ENST00000397850	p.R543C	c.1627	0.017003788	5.878	1
484 BRK1	ENST00000256463	p.R19W	c.55	0.015399208	0	1
484 WASF1	ENST00000392588	p.T30I	c.89	0.015399208	6.021	1
485 PDIA3	ENST00000300289	p.H408R	c.1223	0.00401607	0	1
485 TAPBP	ENST00000456592	p.T255S	c.763	0.00401607	7.96	1
486 RAB11A	ENST00000261890	p.A79E	c.236	0.010949433	0	1
486 RAB11FIP3	ENST00000457159	p.V788M	c.2362	0.010949433	6.513	1
487 C3	ENST00000245907	p.S1008L	c.3023	0.09964906	3.327	1
487 CFHR1	ENST00000320493	p.R309H	c.926	0.09964906	0	1

Supplementary Table 5. Cluster closeness and number of mutations from oncogene clusters

Cluster Closeness	Mutations	Genes
1728.282	252	KRAS
1001.823	338	BRAF
907.763	180	IDH1
685.906	174	PIK3CA
393.835	83	PIK3CA
176.577	54	EGFR
148.783	37	HRAS
119.675	42	PIK3CA
77.81	37	PIK3CA
76.811	27	IDH2
61.101	29	PIK3CA
48.195	19	FLT3
35.526	28	PPP2R1A
31.613	25	EGFR
23.878	24	DNMT3A
22.952	15	MAP2K1
17.481	17	PIK3CA
16.216	13	ERBB2
10.283	10	PTPN11
9.386	8	KIT
8.931	8	SPOP
6.032	4	FLT3
5.935	7	FGFR2
4.996	10	DNMT3A
4.382	4	EZH2
4.342	5	SKP2
4.092	6	SKP2
4.018	4	DNMT3A
3.763	4	FLT3
3.161	8	EGFR
2.725	5	FLT3
2.399	6	SPOP
2.338	4	ABL1
2.332	4	MET
2.158	3	RET
2.157	3	EGFR
2.072	4	MET
2.059	4	DNMT1
2.043	3	DNMT3A

2.035	3	IDH1
1.675	5	EGFR
1.632	4	MET
1.546	3	ABL1
1.345	4	FGFR2
1.345	4	CTNNB1
1.316	4	PTPN11
1.31	4	U2AF1
1.3	5	MET
1.299	4	JAK2
1.2	5	KIT
1.085	3	FGFR2
1.028	2	H3F3A
1.024	3	ERBB2
1.022	3	FLT3
0.547	2	NFE2L2
0.518	3	KRAS
0.409	3	EGFR
0.381	2	KIT
0.372	3	CSF1R
0.369	2	PPP2R1A
0.367	3	CBL
0.359	4	JAK1
0.351	3	ABL1
0.339	3	AR
0.302	5	JAK1
0.3	3	CTNNB1
0.265	3	SPOP
0.256	3	PPP2R1A
0.25	3	DNMT1
0.235	2	PPP2R1A
0.228	2	SPOP
0.213	3	DNMT3A
0.212	2	MET
0.205	2	ALK
0.195	2	FGFR2
0.185	2	RET
0.176	3	AKT1
0.17	3	DNMT3A
0.169	3	CSF1R
0.153	3	EGFR

0.132	2	PPP2R1A
0.126	2	KIT
0.123	2	KIT
0.119	3	TSHR
0.114	2	DNMT1
0.104	3	DNMT3A
0.091	3	PIK3CA
0.084	3	FGFR2
0.083	2	CSF1R
0.08	2	RET
0.078	3	FGFR2
0.07	2	IDH2
0.07	2	KRAS
0.062	2	CSF1R
0.059	3	JAK3
0.054	2	ALK
0.054	3	EGFR
0.054	2	JAK2
0.049	3	DNMT3A
0.047	3	KIT
0.045	2	RET
0.044	3	CTNNB1
0.043	3	KIT
0.042	2	MDM2
0.039	2	CBL
0.036	2	ALK
0.035	2	ALK
0.034	2	SPOP
0.034	2	MET
0.033	2	PIK3CA
0.031	2	EGFR
0.029	2	FLT3
0.028	2	EGFR
0.024	2	CSF1R
0.024	2	ERBB2
0.022	2	MAP2K1
0.021	2	PPP2R1A
0.021	2	JAK1
0.019	2	BRAF
0.019	2	MET
0.019	2	JAK3

0.017	2	FLT3
0.015	2	ERBB2
0.014	2	CTNNB1

Supplementary Table 6. Cluster closeness and number of mutations from tumor suppressor clusters

Cluster Closeness	Mutations	Genes
5311.107	773	TP53
371.341	105	PTEN
201.456	62	FBXW7
114.293	24	SMAD4
104.851	40	CDKN2A
74.467	40	VHL
26.46	13	PIK3R1
20.869	16	EP300
15.178	10	RUNX1
8.577	13	CASP8
8.371	7	FBXW7
8.222	10	PBRM1
7.651	9	PIK3R1
6.908	8	SETD2
5.95	8	SETD2
3.05	4	MAP2K4
2.825	6	SMAD2
2.739	10	B2M
2.684	7	MAP2K4
2.465	4	STK11
2.4	3	SETD2
2.165	3	PTEN
2.119	3	PAX5
2.067	3	RB1
2.04	3	MEN1
2.036	3	MSH6
1.843	5	CDH1
1.554	3	FBXW7
1.428	4	MAP2K4
1.373	6	PBRM1
1.328	3	NOTCH1
1.042	3	NF1
1.025	5	CDKN2C
0.954	7	PIK3R1
0.658	2	CREBBP
0.553	3	SMARCA4
0.481	5	MSH2
0.479	2	ATRX
0.371	3	SMAD2
0.359	3	NOTCH1
0.321	3	CDH1
0.316	2	KDM6A
0.291	3	HNF1A
0.267	3	SMAD4

0.264	2	MSH6
0.259	3	RB1
0.253	3	NOTCH1
0.249	2	CASP8
0.224	2	CDKN2A
0.214	3	PHF6
0.191	3	NOTCH1
0.174	3	MLH1
0.165	2	B2M
0.165	2	RB1
0.147	3	GATA3
0.139	4	MSH6
0.135	2	SMAD4
0.133	2	CASP8
0.132	2	NF2
0.113	2	NOTCH1
0.103	2	ARID1B
0.1	3	PHF6
0.099	2	PBRM1
0.091	2	CDKN2A
0.075	2	SETD2
0.067	3	NF1
0.058	2	MSH6
0.046	2	APC
0.037	2	EP300
0.034	2	EP300
0.032	2	NF1
0.03	2	RB1
0.029	5	RNF43
0.027	2	MEN1
0.023	2	MSH6
0.019	2	RB1
0.018	2	NOTCH1
0.018	2	APC
0.017	2	MSH6
0.017	2	RB1
0.016	2	MSH6
0.016	2	MAP2K4
0.016	2	MEN1
0.015	2	NPM1
0.014	2	NF2
0.013	2	NF2
0.01	2	NPM1
0.008	2	NPM1
0.006	3	PAX5

Supplementary Table 7. Oncogene intra-molecular clusters with protein domain annotation

Cluster ID	Gene	Transcript (Ensembl74)	HGVS Protein Annotation	HGVS Coding Position	Pfam Protein Domain	Cloneness	Centrality	Geodesic From Centroid	No. Patient Samples
90	PPP2R1A	ENST00000322088	p.R105Q	c.314	Protein phosphatase 2 regulatory subunits	0.19562623		9.474	1
90	PPP2R1A	ENST00000322088	p.S143F	c.428	Protein phosphatase 2 regulatory subunits	0.245795419		7.146	1
90	PPP2R1A	ENST00000322088	p.R144C	c.430	Protein phosphatase 2 regulatory subunits	2.017673887		3.954	1
90	PPP2R1A	ENST00000322088	p.R144H	c.431	Protein phosphatase 2 regulatory subunits	2.017673887		3.954	1
90	PPP2R1A	ENST00000322088	p.T145P	c.433	Protein phosphatase 2 regulatory subunits	0.460030453		6.313	1
90	PPP2R1A	ENST00000322088	p.L173M	c.517	Protein phosphatase 2 regulatory subunits	0.366856295		7.5	1
90	PPP2R1A	ENST00000322088	p.P179R	c.536	Protein phosphatase 2 regulatory subunits	7.298162631		0	8
90	PPP2R1A	ENST00000322088	p.R183W	c.547	Protein phosphatase 2 regulatory subunits	6.362422002		7.405	5
90	PPP2R1A	ENST00000322088	p.R183Q	c.548	Protein phosphatase 2 regulatory subunits	6.362422002		7.405	2
90	PPP2R1A	ENST00000322088	p.D215H	c.643	Protein phosphatase 2 regulatory subunits	0.228419611		5.689	1
90	PPP2R1A	ENST00000322088	p.V220M	c.658	Protein phosphatase 2 regulatory subunits	1.497369249		3.965	1
90	PPP2R1A	ENST00000322088	p.R258C	c.772	Protein phosphatase 2 regulatory subunits	4.236709803		8.132	2
90	PPP2R1A	ENST00000322088	p.R258H	c.773	Protein phosphatase 2 regulatory subunits	4.236709803		8.132	3
102	PTPN11	ENST00000351677	p.V428M	c.1282	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	0.094049056		6.727	1
102	PTPN11	ENST00000351677	p.I463L	c.1387	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	0.178566923		4.931	1
102	PTPN11	ENST00000351677	p.T468M	c.1403	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	3.319684691		3.722	4
102	PTPN11	ENST00000351677	p.Q510L	c.1529	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	3.345349104		0	2
102	PTPN11	ENST00000351677	p.Q510H	c.1530	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	3.345349104		0	2
137	EGFR	ENST00000275493	p.F712L	c.2136	Receptor Tyrosine Kinases	0.449520158		9.933	1
137	EGFR	ENST00000275493	p.G721V	c.2162	Receptor Tyrosine Kinases	0.379436077		6.501	1
137	EGFR	ENST00000275493	p.LRE747in_frame_del	c.2236_2244	Receptor Tyrosine Kinases	1.485753755		3.391	1
137	EGFR	ENST00000275493	p.V769L	c.2305	Receptor Tyrosine Kinases	0.590964287		5.484	1
137	EGFR	ENST00000275493	p.I789M	c.2367	Receptor Tyrosine Kinases	0.607598771		8.024	1
137	EGFR	ENST00000275493	p.T790M	c.2369	Receptor Tyrosine Kinases	1.13102416		7.275	1
137	EGFR	ENST00000275493	p.R831H	c.2492	Receptor Tyrosine Kinases	1.426356714		8.933	1
137	EGFR	ENST00000275493	p.R832C	c.2494	Receptor Tyrosine Kinases	1.804391348		9.841	1
137	EGFR	ENST00000275493	p.R832H	c.2495	Receptor Tyrosine Kinases	1.804391348		9.841	1
137	EGFR	ENST00000275493	p.L833V	c.2497	Receptor Tyrosine Kinases	1.940841816		5.541	1
137	EGFR	ENST00000275493	p.L833F	c.2499	Receptor Tyrosine Kinases	1.940841816		5.541	1
137	EGFR	ENST00000275493	p.A839V	c.2516	Receptor Tyrosine Kinases	0.751626111		9.836	1
137	EGFR	ENST00000275493	p.L858R	c.2573	Receptor Tyrosine Kinases	8.219600976		0	9
137	EGFR	ENST00000275493	p.L861Q	c.2582	Receptor Tyrosine Kinases	4.540138193		6.998	3
137	EGFR	ENST00000275493	p.L861R	c.2582	Receptor Tyrosine Kinases	4.540138193		6.998	1
141	H3F3A	ENST00000366813	p.R130H	c.389	Histones	1.027853453		0	2
155	MET	ENST00000318493	p.L296P	c.887	Receptor Tyrosine Kinases	0.284801037		6.961	1
155	MET	ENST00000318493	p.V378I	c.1132	Receptor Tyrosine Kinases	0.015810206		6.983	1
155	MET	ENST00000318493	p.R412C	c.1234	Receptor Tyrosine Kinases	1.015931677		0	1
155	MET	ENST00000318493	p.R412G	c.1234	Receptor Tyrosine Kinases	1.015931677		0	1
156	IDH1	ENST00000415913	p.Y235C	c.704	Unclassified	1.008692579		0	1
156	IDH1	ENST00000415913	p.Y235N	c.703	Unclassified	1.008692579		0	1
156	IDH1	ENST00000415913	p.E190K	c.568	Unclassified	0.017385158		6.846	1
164	PIK3CA	ENST00000263967	p.D538N	c.1612	Phosphatidylinositol 3-kinase subunits	0.198044788		9.221	1
164	PIK3CA	ENST00000263967	p.E542K	c.1624	Phosphatidylinositol 3-kinase subunits	78.03891932		0	73
164	PIK3CA	ENST00000263967	p.E542Q	c.1624	Phosphatidylinositol 3-kinase subunits	78.03891932		0	1
164	PIK3CA	ENST00000263967	p.E542A	c.1625	Phosphatidylinositol 3-kinase subunits	78.03891932		0	2
164	PIK3CA	ENST00000263967	p.E542G	c.1625	Phosphatidylinositol 3-kinase subunits	78.03891932		0	1
164	PIK3CA	ENST00000263967	p.E542V	c.1625	Phosphatidylinositol 3-kinase subunits	78.03891932		0	2
164	PIK3CA	ENST00000263967	p.R992P	c.2975	Phosphatidylinositol 3-kinase subunits	0.172004598		9.836	1
164	PIK3CA	ENST00000263967	p.F1016C	c.3047	Phosphatidylinositol 3-kinase subunits	1.067261781		6.706	1
164	PIK3CA	ENST00000263967	p.D1029H	c.3085	Phosphatidylinositol 3-kinase subunits	2.203357558		5.234	1
194	EGFR	ENST00000275493	p.L38V	c.112	Receptor Tyrosine Kinases	0.051085433		6.568	1
194	EGFR	ENST00000275493	p.E114K	c.340	Receptor Tyrosine Kinases	2.135812001		0	3
194	EGFR	ENST00000275493	p.S116F	c.347	Receptor Tyrosine Kinases	0.060308267		9.387	1
194	EGFR	ENST00000275493	p.V148M	c.442	Receptor Tyrosine Kinases	0.190138688		9.449	1
194	EGFR	ENST00000275493	p.R149W	c.445	Receptor Tyrosine Kinases	0.457076182		3.161	1

194	EGFR	ENST00000275493	p.M178I	c.534	Receptor Tyrosine Kinases	0.266707117	6.567	1
219	ALK	ENST00000389048	p.K1352N	c.4056	CD molecules Receptor Tyrosine Kinases	0.026904662	5.216	1
219	ALK	ENST00000389048	p.S1324F	c.3971	CD molecules Receptor Tyrosine Kinases	0.026904662	0	1
245	FLT3	ENST00000380982	p.L520I	c.1558	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.118501514	0	1
245	FLT3	ENST00000380982	p.L520V	c.1558	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.118501514	0	1
245	FLT3	ENST00000380982	p.N518D	c.1552	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.134936002	6.616	1
245	FLT3	ENST00000380982	p.Y457C	c.1370	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.305975614	3.49	1
245	FLT3	ENST00000380982	p.D362N	c.1084	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.047102835	5.695	1
250	SKP2	ENST00000274255	p.A162S	c.484	F-box and leucine-rich repeat proteins	0.081086403	4.718	1
250	SKP2	ENST00000274255	p.R182C	c.544	F-box and leucine-rich repeat proteins	1.131096556	6.173	2
250	SKP2	ENST00000274255	p.V183I	c.547	F-box and leucine-rich repeat proteins	1.199779439	0	1
250	SKP2	ENST00000274255	p.V183A	c.548	F-box and leucine-rich repeat proteins	1.199779439	0	1
250	SKP2	ENST00000274255	p.S212I	c.635	F-box and leucine-rich repeat proteins	0.479978944	2.899	1
322	DNMT3A	ENST00000321117	p.R899S	c.2695	Unclassified	0.130712698	7.265	1
322	DNMT3A	ENST00000321117	p.G890D	c.2669	Unclassified	1.084617507	7.529	1
322	DNMT3A	ENST00000321117	p.G890C	c.2668	Unclassified	1.084617507	7.529	1
322	DNMT3A	ENST00000321117	p.R792H	c.2375	Unclassified	1.203191529	0	2
322	DNMT3A	ENST00000321117	p.R771Q	c.2312	Unclassified	1.046394554	6.339	2
322	DNMT3A	ENST00000321117	p.F751I	c.2251	Unclassified	0.430543357	2.682	1
322	DNMT3A	ENST00000321117	p.R749C	c.2245	Unclassified	0.011023099	8.404	1
322	DNMT3A	ENST00000321117	p.R720H	c.2159	Unclassified	0.004756117	8.716	1
323	EGFR	ENST00000275493	p.L541F	c.1621	Receptor Tyrosine Kinases	1.029096713	0	1
323	EGFR	ENST00000275493	p.L541I	c.1621	Receptor Tyrosine Kinases	1.029096713	0	1
323	EGFR	ENST00000275493	p.C571S	c.1712	Receptor Tyrosine Kinases	0.098447858	5.103	1
325	NFE2L2	ENST00000397062	p.A511V	c.1532	Basic leucine zipper proteins	0.273573425	0	1
325	NFE2L2	ENST00000397062	p.R449H	c.1346	Basic leucine zipper proteins	0.273573425	1.87	1
329	PIK3CA	ENST00000263967	p.R357Q	c.1070	Phosphatidylinositol 3-kinase subunits	0.350834281	6.449	1
329	PIK3CA	ENST00000263967	p.C420G	c.1258	Phosphatidylinositol 3-kinase subunits	12.46618189	0	1
329	PIK3CA	ENST00000263967	p.C420R	c.1258	Phosphatidylinositol 3-kinase subunits	12.46618189	0	12
329	PIK3CA	ENST00000263967	p.G451R	c.1351	Phosphatidylinositol 3-kinase subunits	1.751534707	4.15	1
329	PIK3CA	ENST00000263967	p.G451V	c.1352	Phosphatidylinositol 3-kinase subunits	1.751534707	4.15	1
329	PIK3CA	ENST00000263967	p.E453K	c.1357	Phosphatidylinositol 3-kinase subunits	10.30262515	5.445	8
329	PIK3CA	ENST00000263967	p.E453Q	c.1357	Phosphatidylinositol 3-kinase subunits	10.30262515	5.445	2
329	PIK3CA	ENST00000263967	p.E453D	c.1359	Phosphatidylinositol 3-kinase subunits	10.30262515	5.445	1
329	PIK3CA	ENST00000263967	p.D454Y	c.1360	Phosphatidylinositol 3-kinase subunits	0.298062548	5.699	1
329	PIK3CA	ENST00000263967	p.LLNPIG455in_frame_delf	c.1365_1379	Phosphatidylinositol 3-kinase subunits	1.108957729	3.83	1
333	DNMT3A	ENST00000321117	p.P419L	c.1256	Unclassified	1.006488047	0	1
333	DNMT3A	ENST00000321117	p.P419T	c.1255	Unclassified	1.006488047	0	1
333	DNMT3A	ENST00000321117	p.A380V	c.1139	Unclassified	0.030121906	7.268	1
336	FGFR2	ENST00000457416	p.H242Y	c.724	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.164701684	5.146	1
336	FGFR2	ENST00000457416	p.R165W	c.493	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.148636975	8.383	1
336	FGFR2	ENST00000457416	p.E163K	c.487	CD molecules I-set domain containing Receptor Tyrosine Kinases	1.031237747	0	2
346	BRAF	ENST00000288602	p.K601E	c.1801	Unclassified	7.727589944	9.577	8
346	BRAF	ENST00000288602	p.V600E	c.1800_1799	Unclassified	321.0767445	0	307
346	BRAF	ENST00000288602	p.V600K	c.1799_1798	Unclassified	321.0767445	0	13
346	BRAF	ENST00000288602	p.V600R	c.1799_1798	Unclassified	321.0767445	0	2
346	BRAF	ENST00000288602	p.L597Q	c.1790	Unclassified	2.379273653	8.532	1
346	BRAF	ENST00000288602	p.G596D	c.1787	Unclassified	2.512428361	8.181	1
346	BRAF	ENST00000288602	p.D594G	c.1781	Unclassified	5.383646501	7.975	1
346	BRAF	ENST00000288602	p.D594H	c.1780	Unclassified	5.383646501	7.975	1
346	BRAF	ENST00000288602	p.D594N	c.1780	Unclassified	5.383646501	7.975	2
346	BRAF	ENST00000288602	p.S467L	c.1400	Unclassified	9.82216427	5.499	2
371	PIK3CA	ENST00000263967	p.R38C	c.112	Phosphatidylinositol 3-kinase subunits	9.241239798	4.472	2
371	PIK3CA	ENST00000263967	p.R38S	c.112	Phosphatidylinositol 3-kinase subunits	9.241239798	4.472	1
371	PIK3CA	ENST00000263967	p.R38H	c.113	Phosphatidylinositol 3-kinase subunits	9.241239798	4.472	5
371	PIK3CA	ENST00000263967	p.R38L	c.113	Phosphatidylinositol 3-kinase subunits	9.241239798	4.472	1
371	PIK3CA	ENST00000263967	p.E39K	c.115	Phosphatidylinositol 3-kinase subunits	7.197941223	2.806	4

371	PIK3CA	ENST00000263967	p.E39G	c.116	Phosphatidylinositol 3-kinase subunits	7.197941223	2.806	1
371	PIK3CA	ENST00000263967	p.R88Q	c.263	Phosphatidylinositol 3-kinase subunits	21.13826212	0	21
371	PIK3CA	ENST00000263967	p.C90G	c.268	Phosphatidylinositol 3-kinase subunits	2.655319912	6.815	1
371	PIK3CA	ENST00000263967	p.C90Y	c.269	Phosphatidylinositol 3-kinase subunits	2.655319912	6.815	1
373	KIT	ENST00000288135	p.E128K	c.382	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.394104291	0	1
373	KIT	ENST00000288135	p.K176N	c.528	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.123547665	4.669	1
373	KIT	ENST00000288135	p.R177L	c.530	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.276391345	2.666	1
373	KIT	ENST00000288135	p.V204A	c.611	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.22105492	3.707	1
373	KIT	ENST00000288135	p.K209I	c.626	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.185336079	3.051	1
388	EGFR	ENST00000275493	p.T354M	c.1061	Receptor Tyrosine Kinases	0.201953377	0	1
388	EGFR	ENST00000275493	p.R377S	c.1131	Receptor Tyrosine Kinases	0.016087021	6.207	1
388	EGFR	ENST00000275493	p.T384S	c.1151	Receptor Tyrosine Kinases	0.190967371	2.408	1
405	U2AF1	ENST00000291552	p.222in_frame_insG	c.654_653	RNA binding motif containing	1.020142273	0	2
405	U2AF1	ENST00000291552	p.V115I	c.343	RNA binding motif containing	0.129029823	8.808	1
405	U2AF1	ENST00000464750	p.I46V	c.136	RNA binding motif containing	0.160389789	5.803	1
491	MAP2K1	ENST00000307102	p.R47Q	c.140	Mitogen-activated protein kinase kinases	0.231426535	5.902	1
491	MAP2K1	ENST00000307102	p.N122D	c.364	Mitogen-activated protein kinase kinases	0.394980667	9.478	1
491	MAP2K1	ENST00000307102	p.P124L	c.370_371	Mitogen-activated protein kinase kinases	6.390594297	0	1
491	MAP2K1	ENST00000307102	p.P124S	c.370	Mitogen-activated protein kinase kinases	6.390594297	0	6
491	MAP2K1	ENST00000307102	p.E203K	c.607	Mitogen-activated protein kinase kinases	4.575116579	3.762	4
491	MAP2K1	ENST00000307102	p.E203V	c.608	Mitogen-activated protein kinase kinases	4.575116579	3.762	1
491	MAP2K1	ENST00000307102	p.E333A	c.998	Mitogen-activated protein kinase kinases	0.394005011	7.995	1
515	SPOP	ENST00000393331	p.G75L	c.224_223	BTB (POZ) domain containing	0.240047779	4.457	1
515	SPOP	ENST00000393331	p.E50K	c.148	BTB (POZ) domain containing	2.049727278	0	3
515	SPOP	ENST00000393331	p.E47A	c.140	BTB (POZ) domain containing	0.065909832	8.61	1
515	SPOP	ENST00000393331	p.R45W	c.133	BTB (POZ) domain containing	0.042877303	9.255	1
698	CBL	ENST00000264033	p.C384W	c.1152	Ring finger proteins	0.019357011	5.691	1
698	CBL	ENST00000264033	p.F418L	c.1252	Ring finger proteins	0.019357011	0	1
768	EGFR	ENST00000275493	p.L62R	c.185	Receptor Tyrosine Kinases	3.315453444	4.396	3
768	EGFR	ENST00000275493	p.G63K	c.187_188	Receptor Tyrosine Kinases	1.337871862	8.752	1
768	EGFR	ENST00000275493	p.G63R	c.187	Receptor Tyrosine Kinases	1.337871862	8.752	1
768	EGFR	ENST00000275493	p.E84V	c.251	Receptor Tyrosine Kinases	1.983348841	4.67	1
768	EGFR	ENST00000275493	p.V85M	c.253	Receptor Tyrosine Kinases	2.319236077	5.533	1
768	EGFR	ENST00000275493	p.R108G	c.322	Receptor Tyrosine Kinases	7.383260425	3.531	1
768	EGFR	ENST00000275493	p.R108K	c.323	Receptor Tyrosine Kinases	7.383260425	3.531	4
768	EGFR	ENST00000275493	p.R222C	c.664	Receptor Tyrosine Kinases	4.707773717	8.599	5
768	EGFR	ENST00000275493	p.R252C	c.754	Receptor Tyrosine Kinases	6.777874813	5.204	3
768	EGFR	ENST00000275493	p.R252P	c.755	Receptor Tyrosine Kinases	6.777874813	5.204	3
768	EGFR	ENST00000275493	p.F254I	c.760	Receptor Tyrosine Kinases	4.630001099	2.504	1
768	EGFR	ENST00000275493	p.D256Y	c.766	Receptor Tyrosine Kinases	0.73400312	5.182	1
768	EGFR	ENST00000275493	p.C264Y	c.791	Receptor Tyrosine Kinases	0.498008522	5.848	1
768	EGFR	ENST00000275493	p.A289I	c.865_866	Receptor Tyrosine Kinases	25.04363397	0	1
768	EGFR	ENST00000275493	p.A289N	c.865_866	Receptor Tyrosine Kinases	25.04363397	0	1
768	EGFR	ENST00000275493	p.A289T	c.865	Receptor Tyrosine Kinases	25.04363397	0	6
768	EGFR	ENST00000275493	p.A289D	c.866	Receptor Tyrosine Kinases	25.04363397	0	3
768	EGFR	ENST00000275493	p.A289V	c.866	Receptor Tyrosine Kinases	25.04363397	0	14
768	EGFR	ENST00000275493	p.H304Y	c.910	Receptor Tyrosine Kinases	2.172632678	8.916	3
788	PIK3CA	ENST00000263967	p.T342S	c.1024	Phosphatidylinositol 3-kinase subunits	1.450583481	5.919	1
788	PIK3CA	ENST00000263967	p.V344M	c.1030	Phosphatidylinositol 3-kinase subunits	9.287951282	5.881	4
788	PIK3CA	ENST00000263967	p.V344A	c.1031	Phosphatidylinositol 3-kinase subunits	9.287951282	5.881	2
788	PIK3CA	ENST00000263967	p.V344G	c.1031	Phosphatidylinositol 3-kinase subunits	9.287951282	5.881	3
788	PIK3CA	ENST00000263967	p.N345I	c.1034	Phosphatidylinositol 3-kinase subunits	23.55777267	0	1
788	PIK3CA	ENST00000263967	p.N345T	c.1034	Phosphatidylinositol 3-kinase subunits	23.55777267	0	1
788	PIK3CA	ENST00000263967	p.N345K	c.1035	Phosphatidylinositol 3-kinase subunits	23.55777267	0	22
788	PIK3CA	ENST00000263967	p.C378R	c.1132	Phosphatidylinositol 3-kinase subunits	2.155005679	6.394	1
788	PIK3CA	ENST00000263967	p.C378Y	c.1133	Phosphatidylinositol 3-kinase subunits	2.155005679	6.394	1
788	PIK3CA	ENST00000263967	p.VPVGLEDL447in_frame_del	c.1338_1364	Phosphatidylinositol 3-kinase subunits	2.514557644	4.275	2

788	PIK3CA	ENST00000263967	p.E469in_frame_insDK	c.1405_1406	Phosphatidylinositol 3-kinase subunits	0.512273887	6.155	1
788	PIK3CA	ENST00000263967	p.P471A	c.1411	Phosphatidylinositol 3-kinase subunits	6.175116951	3.6	1
788	PIK3CA	ENST00000263967	p.P471L	c.1412	Phosphatidylinositol 3-kinase subunits	6.175116951	3.6	2
831	RET	ENST00000355710	p.V706M	c.2116	Cadherin-related Receptor Tyrosine Kinases	0.02245219	0	1
831	RET	ENST00000355710	p.R959V	c.2875	Cadherin-related Receptor Tyrosine Kinases	0.02245219	5.477	1
968	PIK3CA	ENST00000263967	p.Q958R	c.2873	Phosphatidylinositol 3-kinase subunits	9.01433212	4.324	1
968	PIK3CA	ENST00000263967	p.H1047Y	c.3139	Phosphatidylinositol 3-kinase subunits	168.0786511	0	1
968	PIK3CA	ENST00000263967	p.H1047L	c.3140	Phosphatidylinositol 3-kinase subunits	168.0786511	0	21
968	PIK3CA	ENST00000263967	p.H1047R	c.3140	Phosphatidylinositol 3-kinase subunits	168.0786511	0	146
968	PIK3CA	ENST00000263967	p.H1047Q	c.3141	Phosphatidylinositol 3-kinase subunits	168.0786511	0	1
968	PIK3CA	ENST00000263967	p.H1048R	c.3143	Phosphatidylinositol 3-kinase subunits	1.094458955	7.516	1
968	PIK3CA	ENST00000263967	p.G1049R	c.3145	Phosphatidylinositol 3-kinase subunits	3.482561942	7.011	3
1018	KIT	ENST00000288135	p.N566S	c.1697	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.091747442	9.731	1
1018	KIT	ENST00000288135	p.V603D	c.1808	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.662711796	3.568	1
1018	KIT	ENST00000288135	p.G812V	c.2435	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.425726186	5.859	1
1018	KIT	ENST00000288135	p.D816Y	c.2446	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	4.102724845	0	1
1018	KIT	ENST00000288135	p.D816V	c.2447	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	4.102724845	0	4
1020	CSF1R	ENST00000286301	p.R256C	c.766	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.083431014	0	1
1020	CSF1R	ENST00000286301	p.V229I	c.685	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.069556584	3.867	1
1020	CSF1R	ENST00000286301	p.A226V	c.677	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.015916149	6.069	1
1066	FLT3	ENST00000380982	p.R311Q	c.932	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.014680043	0	1
1066	FLT3	ENST00000380982	p.H276Y	c.826	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.014680043	6.09	1
1087	BRAF	ENST00000288602	p.E228V	c.683	Unclassified	0.009532035	0	1
1087	BRAF	ENST00000288602	p.K205Q	c.613	Unclassified	0.009532035	6.713	1
1155	SPOP	ENST00000393331	p.F133C	c.398	BTB (POZ) domain containing	0.233547001	5.55	1
1155	SPOP	ENST00000393331	p.W131C	c.393	BTB (POZ) domain containing	2.234095683	0	1
1155	SPOP	ENST00000393331	p.W131G	c.391	BTB (POZ) domain containing	2.234095683	0	1
1155	SPOP	ENST00000393331	p.W131R	c.391	BTB (POZ) domain containing	2.234095683	0	1
1155	SPOP	ENST00000393331	p.R121Q	c.362	BTB (POZ) domain containing	1.118275762	8.985	2
1155	SPOP	ENST00000393331	p.P94R	c.281	BTB (POZ) domain containing	0.227428579	4.725	1
1155	SPOP	ENST00000393331	p.Y87S	c.260	BTB (POZ) domain containing	0.649846313	2.548	1
1215	FLT3	ENST00000380982	p.D835E	c.2505	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	15.12335553	0	3
1215	FLT3	ENST00000380982	p.D835H	c.2503	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	15.12335553	0	2
1215	FLT3	ENST00000380982	p.D835Y	c.2503	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	15.12335553	0	11
1215	FLT3	ENST00000380982	p.S618L	c.1853	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.675974269	3.255	1
1215	FLT3	ENST00000380982	p.G617E	c.1850	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.148857106	6.748	2
1219	CTNNB1	ENST00000349496	p.A215T	c.643	Armadillo repeat containing	0.009420374	6.73	1
1219	CTNNB1	ENST00000349496	p.T257I	c.770	Armadillo repeat containing	0.018538796	0	1
1219	CTNNB1	ENST00000349496	p.K292E	c.874	Armadillo repeat containing	0.015697039	6.777	1
1254	CTNNB1	ENST00000349496	p.R587Q	c.1760	Armadillo repeat containing	0.158707464	6.554	1
1254	CTNNB1	ENST00000349496	p.C619Y	c.1856	Armadillo repeat containing	1.012050775	0	2
1254	CTNNB1	ENST00000349496	p.Q623E	c.1867	Armadillo repeat containing	0.173760419	9.472	1
1302	FGFR2	ENST00000457416	p.M723I	c.2169	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.039157174	0	1
1302	FGFR2	ENST00000457416	p.E696K	c.2086	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.015292838	6.031	1
1302	FGFR2	ENST00000457416	p.G691R	c.2071	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.023864336	5.389	1
1308	CBL	ENST00000264033	p.E143D	c.429	Ring finger proteins	0.0206992	5.812	1
1308	CBL	ENST00000264033	p.R149Q	c.446	Ring finger proteins	0.165792854	2.618	1
1308	CBL	ENST00000264033	p.E276K	c.826	Ring finger proteins	0.180693134	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insGTGSSDNEYFYVDF	c.1783_1782	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	2.005403088	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insSDNEYFYVDF	c.1783_1782	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	2.005403088	0	1
1342	FLT3	ENST00000380982	p.594in_frame_insSPEDNEYFYVD	c.1781_1780	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	2.005403088	0	1
1342	FLT3	ENST00000380982	p.S127F	c.380	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.016209265	7.532	1
1345	SPOP	ENST00000393331	p.L282R	c.845	BTB (POZ) domain containing	0.028135362	5.295	1
1345	SPOP	ENST00000393331	p.A281S	c.841	BTB (POZ) domain containing	0.107267632	3.257	1
1345	SPOP	ENST00000393331	p.P223S	c.667	BTB (POZ) domain containing	0.130074291	0	1
1368	MET	ENST00000318493	p.L1223V	c.3667	Receptor Tyrosine Kinases	0.009407323	6.732	1
1368	MET	ENST00000318493	p.M1268T	c.3803	Receptor Tyrosine Kinases	0.009407323	0	1

1419	KRAS	ENST00000256078	p.E62K	c.184	RAS type family GTPases	5.558446135	5.185	1
1419	KRAS	ENST00000256078	p.Q61H	c.183	RAS type family GTPases	37.49946109	3.423	8
1419	KRAS	ENST00000256078	p.Q61L	c.182	RAS type family GTPases	37.49946109	3.423	6
1419	KRAS	ENST00000256078	p.Q61R	c.182	RAS type family GTPases	37.49946109	3.423	3
1419	KRAS	ENST00000256078	p.Q61K	c.181_180	RAS type family GTPases	37.49946109	3.423	3
1419	KRAS	ENST00000256078	p.A59E	c.176	RAS type family GTPases	27.87368317	3.003	1
1419	KRAS	ENST00000256078	p.A59G	c.176	RAS type family GTPases	27.87368317	3.003	1
1419	KRAS	ENST00000256078	p.A59T	c.175	RAS type family GTPases	27.87368317	3.003	1
1419	KRAS	ENST00000256078	p.I36M	c.108	RAS type family GTPases	4.180603825	5.798	1
1419	KRAS	ENST00000256078	p.G13D	c.38	RAS type family GTPases	29.75340752	8.235	25
1419	KRAS	ENST00000256078	p.G13V	c.38	RAS type family GTPases	29.75340752	8.235	1
1419	KRAS	ENST00000256078	p.G13C	c.37	RAS type family GTPases	29.75340752	8.235	3
1419	KRAS	ENST00000256078	p.G12A	c.35	RAS type family GTPases	199.3806168	0	12
1419	KRAS	ENST00000256078	p.G12D	c.35	RAS type family GTPases	199.3806168	0	68
1419	KRAS	ENST00000256078	p.G12F	c.35_34	RAS type family GTPases	199.3806168	0	2
1419	KRAS	ENST00000256078	p.G12V	c.35	RAS type family GTPases	199.3806168	0	63
1419	KRAS	ENST00000256078	p.G12C	c.34	RAS type family GTPases	199.3806168	0	43
1419	KRAS	ENST00000256078	p.G12R	c.34	RAS type family GTPases	199.3806168	0	6
1419	KRAS	ENST00000256078	p.G12S	c.34	RAS type family GTPases	199.3806168	0	4
1450	TSHR	ENST00000298171	p.N135K	c.405	Glycoprotein hormone receptors	0.022460568	6.466	1
1450	TSHR	ENST00000298171	p.N187D	c.559	Glycoprotein hormone receptors	0.053764713	0	1
1450	TSHR	ENST00000298171	p.K211T	c.632	Glycoprotein hormone receptors	0.042452696	4.558	1
1495	JAK2	ENST00000539801	p.I540N	c.1619	SH2 domain containing	0.169038195	4.668	1
1495	JAK2	ENST00000539801	p.R564G	c.1690	SH2 domain containing	0.087550345	8.291	1
1495	JAK2	ENST00000539801	p.V617F	c.1849	SH2 domain containing	1.042528878	0	2
1521	PIK3CA	ENST00000263967	p.D725N	c.2173	Phosphatidylinositol 3-kinase subunits	0.058879648	9.378	1
1521	PIK3CA	ENST00000263967	p.E726K	c.2176	Phosphatidylinositol 3-kinase subunits	13.1603819	0	14
1521	PIK3CA	ENST00000263967	p.R777K	c.2330	Phosphatidylinositol 3-kinase subunits	2.131071995	3.654	1
1521	PIK3CA	ENST00000263967	p.R777M	c.2330	Phosphatidylinositol 3-kinase subunits	2.131071995	3.654	1
1532	JAK1	ENST00000342505	p.S1141C	c.3421	Unclassified	0.044116816	4.599	1
1532	JAK1	ENST00000342505	p.R1139W	c.3415	Unclassified	0.020868526	5.679	1
1532	JAK1	ENST00000342505	p.G962E	c.2885	Unclassified	0.016763561	5.995	1
1532	JAK1	ENST00000342505	p.F958C	c.2873	Unclassified	0.074443838	3.854	1
1532	JAK1	ENST00000342505	p.R879H	c.2636	Unclassified	0.145617234	0	1
1533	ERBB2	ENST00000269571	p.D742H	c.2224	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.007259068	0	1
1533	ERBB2	ENST00000269571	p.K937R	c.2810	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.007259068	7.106	1
1568	PIK3CA	ENST00000263967	p.N170S	c.509	Phosphatidylinositol 3-kinase subunits	0.012456132	6.327	1
1568	PIK3CA	ENST00000263967	p.S629C	c.1886	Phosphatidylinositol 3-kinase subunits	0.045328063	0	1
1568	PIK3CA	ENST00000263967	p.R818C	c.2452	Phosphatidylinositol 3-kinase subunits	0.032871931	4.927	1
1606	IDH1	ENST00000415913	p.M291I	c.873	Unclassified	1.972091686	6.572	1
1606	IDH1	ENST00000415913	p.R132H	c.395	Unclassified	177.1233233	0	137
1606	IDH1	ENST00000415913	p.R132L	c.395	Unclassified	177.1233233	0	1
1606	IDH1	ENST00000415913	p.R132C	c.394	Unclassified	177.1233233	0	28
1606	IDH1	ENST00000415913	p.R132G	c.394	Unclassified	177.1233233	0	7
1606	IDH1	ENST00000415913	p.R132S	c.394	Unclassified	177.1233233	0	5
1606	IDH1	ENST00000415913	p.R109K	c.326	Unclassified	20.17381059	3.148	1
1653	HRAS	ENST00000311189	p.Q61L	c.182	RAS type family GTPases	18.44203447	0	2
1653	HRAS	ENST00000311189	p.Q61R	c.182	RAS type family GTPases	18.44203447	0	10
1653	HRAS	ENST00000311189	p.Q61K	c.181	RAS type family GTPases	18.44203447	0	5
1653	HRAS	ENST00000311189	p.A59T	c.175	RAS type family GTPases	1.124093262	5.706	1
1653	HRAS	ENST00000311189	p.D33N	c.97	RAS type family GTPases	0.598317025	5.153	1
1653	HRAS	ENST00000311189	p.G13D	c.38	RAS type family GTPases	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G13V	c.38	RAS type family GTPases	9.154840729	4.032	3
1653	HRAS	ENST00000311189	p.G13C	c.37	RAS type family GTPases	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G13R	c.37	RAS type family GTPases	9.154840729	4.032	3
1653	HRAS	ENST00000311189	p.G13S	c.37	RAS type family GTPases	9.154840729	4.032	1
1653	HRAS	ENST00000311189	p.G12A	c.35	RAS type family GTPases	10.90356124	2.214	1

1653	HRAS	ENST00000311189	p.G12D	c.35	RAS type family GTPases	10.90356124	2.214	4
1653	HRAS	ENST00000311189	p.G12C	c.34	RAS type family GTPases	10.90356124	2.214	1
1653	HRAS	ENST00000311189	p.G12S	c.34	RAS type family GTPases	10.90356124	2.214	2
1653	HRAS	ENST00000311189	p.A11D	c.32	RAS type family GTPases	2.346200201	3.055	1
1701	SPOP	ENST00000393331	p.K238E	c.712	BTB (POZ) domain containing	0.017181502	0	1
1701	SPOP	ENST00000393331	p.D201H	c.601	BTB (POZ) domain containing	0.017181502	5.863	1
1836	MET	ENST00000318493	p.V1088E	c.3263	Receptor Tyrosine Kinases	1.099146805	0	2
1836	MET	ENST00000318493	p.T1114S	c.3341	Receptor Tyrosine Kinases	0.145127428	3.797	1
1836	MET	ENST00000318493	p.N1118D	c.3352	Receptor Tyrosine Kinases	0.019901211	6.651	1
1836	MET	ENST00000318493	p.R1166Q	c.3497	Receptor Tyrosine Kinases	0.035747456	5.857	1
1847	DNMT3A	ENST00000321117	p.I407T	c.1220	Unclassified	0.079872238	0	1
1847	DNMT3A	ENST00000321117	p.Q374L	c.1121	Unclassified	0.0146298	7.174	1
1847	DNMT3A	ENST00000321117	p.Y359C	c.1076	Unclassified	0.075519192	3.777	1
1888	ERBB2	ENST00000269571	p.I767M	c.2301	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.026413894	9.142	1
1888	ERBB2	ENST00000269571	p.D769H	c.2305	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	3.030425839	8.938	1
1888	ERBB2	ENST00000269571	p.D769N	c.2305	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	3.030425839	8.938	1
1888	ERBB2	ENST00000269571	p.D769Y	c.2305	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	3.030425839	8.938	1
1888	ERBB2	ENST00000269571	p.V842I	c.2524	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	6.136144517	0	2
1888	ERBB2	ENST00000269571	p.R868W	c.2602	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.962170401	2.986	1
1897	KIT	ENST00000288135	p.M552L	c.1654	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.023494018	0	1
1897	KIT	ENST00000288135	p.L631F	c.1893	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.009957505	6.65	1
1897	KIT	ENST00000288135	p.K826N	c.2478	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.013536513	6.207	1
1906	JAK1	ENST00000342505	p.Y999H	c.2995	Unclassified	0.072672524	4.045	1
1906	JAK1	ENST00000342505	p.R997W	c.2989	Unclassified	0.112611719	3.743	1
1906	JAK1	ENST00000342505	p.Y933F	c.2798	Unclassified	0.035894745	8.647	1
1906	JAK1	ENST00000342505	p.L932R	c.2795	Unclassified	0.137762122	0	1
2093	SPOP	ENST00000393331	p.K262N	c.786	BTB (POZ) domain containing	0.113833729	0	1
2093	SPOP	ENST00000393331	p.D188A	c.563	BTB (POZ) domain containing	0.113833729	3.135	1
2139	ERBB2	ENST00000269571	p.D821Y	c.2461	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.016042024	6.962	1
2139	ERBB2	ENST00000269571	p.M916I	c.2748	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	1.008021012	0	2
2157	PPP2R1A	ENST00000322088	p.L466M	c.1396	Protein phosphatase 2 regulatory subunits	0.010416396	6.585	1
2157	PPP2R1A	ENST00000322088	p.I505T	c.1514	Protein phosphatase 2 regulatory subunits	0.010416396	0	1
2172	PIK3CA	ENST00000263967	p.E737K	c.2209	Phosphatidylinositol 3-kinase subunits	0.016322434	5.937	1
2172	PIK3CA	ENST00000263967	p.L766F	c.2296	Phosphatidylinositol 3-kinase subunits	0.016322434	0	1
2405	FGFR2	ENST00000457416	p.L618F	c.1854	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.037452413	0	1
2405	FGFR2	ENST00000457416	p.H545Q	c.1635	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.024647607	6.028	1
2405	FGFR2	ENST00000457416	p.M538I	c.1614	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.022127741	5.498	1
2429	FGFR2	ENST00000457416	p.R665W	c.1993	CD molecules I-set domain containing Receptor Tyrosine Kinases	1.035412975	8.094	2
2429	FGFR2	ENST00000457416	p.K660N	c.1980	CD molecules I-set domain containing Receptor Tyrosine Kinases	2.158248129	0	1
2429	FGFR2	ENST00000457416	p.K660E	c.1978	CD molecules I-set domain containing Receptor Tyrosine Kinases	2.158248129	0	2
2429	FGFR2	ENST00000457416	p.D656G	c.1967	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.077459796	9.777	1
2429	FGFR2	ENST00000457416	p.R626Q	c.1877	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.505842144	2.739	1
2436	PPP2R1A	ENST00000322088	p.R498H	c.1493	Protein phosphatase 2 regulatory subunits	0.184539301	2.438	1
2436	PPP2R1A	ENST00000322088	p.D531H	c.1591	Protein phosphatase 2 regulatory subunits	0.184539301	0	1
2515	CSF1R	ENST00000286301	p.Y360C	c.1079	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.09460002	3.528	1
2515	CSF1R	ENST00000286301	p.V325M	c.973	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.177941436	0	1
2515	CSF1R	ENST00000286301	p.N302H	c.904	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.099162585	3.454	1
2562	JAK3	ENST00000458235	p.R1085Q	c.3254	Unclassified	0.01025165	6.608	1
2562	JAK3	ENST00000458235	p.C1077F	c.3230	Unclassified	0.01945116	5.684	1
2562	JAK3	ENST00000458235	p.S1012R	c.3036	Unclassified	0.02970281	0	1
2587	MET	ENST00000318493	p.A361in_frame_del	c.1081_1083	Receptor Tyrosine Kinases	0.136117973	6.203	1
2587	MET	ENST00000318493	p.L429V	c.1285	Receptor Tyrosine Kinases	0.358104846	3.005	1
2587	MET	ENST00000318493	p.R469Q	c.1406	Receptor Tyrosine Kinases	1.138141629	0	2
2619	KRAS	ENST00000256078	p.R164Q	c.491	RAS type family GTPases	0.253625192	0	1
2619	KRAS	ENST00000256078	p.R135T	c.404	RAS type family GTPases	0.23585079	2.117	1
2619	KRAS	ENST00000256078	p.P110S	c.328	RAS type family GTPases	0.028424423	5.436	1
2873	ABL1	ENST00000372348	p.M370T	c.1109	SH2 domain containing	0.162423464	4.672	1

2873	ABL1	ENST00000372348	p.E472K	c.1414	SH2 domain containing	1.042521121	0	1
2873	ABL1	ENST00000372348	p.E472Q	c.1414	SH2 domain containing	1.042521121	0	1
2873	ABL1	ENST00000372348	p.K473in_frame_del	c.1415_1417	SH2 domain containing	0.090556707	8.246	1
2894	AR	ENST00000374690	p.L729I	c.2185	Nuclear hormone receptors	0.163129963	0	1
2894	AR	ENST00000374690	p.F814V	c.2440	Nuclear hormone receptors	0.076147675	3.844	1
2894	AR	ENST00000374690	p.F828L	c.2482	Nuclear hormone receptors	0.100003432	3.419	1
2902	DNMT1	ENST00000359526	p.V1359M	c.4075	Zinc fingers, CXXC-type	0.057193698	0	1
2902	DNMT1	ENST00000359526	p.F1312L	c.3934	Zinc fingers, CXXC-type	0.057193698	4.128	1
2951	AKT1	ENST00000407796	p.T211I	c.632	Pleckstrin homology domain containing	0.04531283	4.524	1
2951	AKT1	ENST00000407796	p.V201I	c.601	Pleckstrin homology domain containing	0.044359358	4.556	1
2951	AKT1	ENST00000407796	p.W80R	c.238	Pleckstrin homology domain containing	0.085976651	0	1
2960	KIT	ENST00000288135	p.P37A	c.109	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.009813612	6.671	1
2960	KIT	ENST00000288135	p.V64G	c.191	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.011694711	6.418	1
2960	KIT	ENST00000288135	p.G102S	c.304	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.021508323	0	1
3004	EGFR	ENST00000275493	p.D807H	c.2419	Receptor Tyrosine Kinases	0.187811346	4.588	1
3004	EGFR	ENST00000275493	p.S811C	c.2432	Receptor Tyrosine Kinases	0.184832466	6.115	1
3004	EGFR	ENST00000275493	p.I981F	c.2941	Receptor Tyrosine Kinases	0.242075781	8.037	1
3004	EGFR	ENST00000275493	p.G983R	c.2947	Receptor Tyrosine Kinases	1.059814223	0	2
3018	ALK	ENST00000389048	p.FGM1271in_frame_del	c.3818_3813	CD molecules Receptor Tyrosine Kinases	0.102592701	3.285	1
3018	ALK	ENST00000389048	p.F1174L	c.3520	CD molecules Receptor Tyrosine Kinases	0.102592701	0	1
3050	DNMT3A	ENST00000321117	p.F336V	c.1006	Unclassified	0.022815987	0	1
3050	DNMT3A	ENST00000321117	p.S312F	c.935	Unclassified	0.014407861	6.117	1
3050	DNMT3A	ENST00000321117	p.L300P	c.899	Unclassified	0.01165665	6.894	1
3073	FGFR2	ENST00000457416	p.S220C	c.658	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.097665985	3.356	1
3073	FGFR2	ENST00000457416	p.T174N	c.521	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.097665985	0	1
3115	EGFR	ENST00000275493	p.P373Q	c.1118	Receptor Tyrosine Kinases	0.012015163	6.379	1
3115	EGFR	ENST00000275493	p.V441I	c.1321	Receptor Tyrosine Kinases	0.076629584	0	1
3115	EGFR	ENST00000275493	p.G465R	c.1393	Receptor Tyrosine Kinases	0.064614421	3.952	1
3148	DNMT3A	ENST00000321117	p.M585L	c.1753	Unclassified	0.073256929	3.818	1
3148	DNMT3A	ENST00000321117	p.R556M	c.1667	Unclassified	0.104095942	0	1
3148	DNMT3A	ENST00000321117	p.Y533C	c.1598	Unclassified	0.035545936	4.913	1
3174	CSF1R	ENST00000286301	p.F293C	c.878	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.011973593	6.384	1
3174	CSF1R	ENST00000286301	p.L263F	c.787	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.011973593	0	1
3290	FGFR2	ENST00000457416	p.P709S	c.2125	CD molecules I-set domain containing Receptor Tyrosine Kinases	0.056916865	5.135	1
3290	FGFR2	ENST00000457416	p.L561F	c.1681	CD molecules I-set domain containing Receptor Tyrosine Kinases	1.028458432	0	2
3339	FLT3	ENST00000380982	p.P896L	c.2687	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.004802496	0	2
3339	FLT3	ENST00000380982	p.V843A	c.2528	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.017565079	7.702	1
3347	EZH2	ENST00000320356	p.R690H	c.2069	Lysine (K)-specific methyltransferases SANT/Myb domain containing	0.229086207	3.711	1
3347	EZH2	ENST00000320356	p.Y646F	c.1938_1937	Lysine (K)-specific methyltransferases SANT/Myb domain containing	2.076362069	0	1
3347	EZH2	ENST00000320356	p.Y646N	c.1936	Lysine (K)-specific methyltransferases SANT/Myb domain containing	2.076362069	0	2
3445	ALK	ENST00000389048	p.L1318M	c.3952	CD molecules Receptor Tyrosine Kinases	0.017301009	0	1
3445	ALK	ENST00000389048	p.R1253T	c.3758	CD molecules Receptor Tyrosine Kinases	0.017301009	5.853	1
3465	RET	ENST00000355710	p.R205G	c.613	Cadherin-related Receptor Tyrosine Kinases	0.040023746	4.643	1
3465	RET	ENST00000355710	p.M255I	c.765	Cadherin-related Receptor Tyrosine Kinases	0.040023746	0	1
3585	ALK	ENST00000389048	p.S1308Y	c.3923	CD molecules Receptor Tyrosine Kinases	0.017985773	0	1
3585	ALK	ENST00000389048	p.E1242K	c.3724	CD molecules Receptor Tyrosine Kinases	0.017985773	5.797	1
3607	JAK1	ENST00000342505	p.L1153F	c.3459	Unclassified	0.010731533	0	1
3607	JAK1	ENST00000342505	p.Q980L	c.2939	Unclassified	0.010731533	6.542	1
3648	DNMT3A	ENST00000321117	p.P804S	c.2410	Unclassified	0.029666941	5.075	1
3648	DNMT3A	ENST00000321117	p.R803S	c.2409	Unclassified	0.022143084	5.497	1
3648	DNMT3A	ENST00000321117	p.D781G	c.2342	Unclassified	0.051810026	0	1
3729	PPP2R1A	ENST00000322088	p.Q372L	c.1115	Protein phosphatase 2 regulatory subunits	0.066201146	0	1
3729	PPP2R1A	ENST00000322088	p.P406R	c.1217	Protein phosphatase 2 regulatory subunits	0.066201146	3.917	1
3837	CSF1R	ENST00000286301	p.H165Y	c.493	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.030926771	5.015	1
3837	CSF1R	ENST00000286301	p.A123T	c.367	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.030926771	0	1
3945	IDH2	ENST00000330062	p.A370T	c.1108	Unclassified	0.034866854	4.842	1
3945	IDH2	ENST00000330062	p.T331M	c.992	Unclassified	0.034866854	0	1

3974	CSF1R	ENST00000286301	p.A767V	c.2300	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.041607863	4.587	1
3974	CSF1R	ENST00000286301	p.E557D	c.1671	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.041607863	0	1
3996	MAP2K1	ENST00000307102	p.D67N	c.199	Mitogen-activated protein kinase kinases	0.010941846	6.514	1
3996	MAP2K1	ENST00000307102	p.R96K	c.287	Mitogen-activated protein kinase kinases	0.010941846	0	1
4048	MET	ENST00000318493	p.D1198Y	c.3592	Receptor Tyrosine Kinases	0.015887104	6.976	1
4048	MET	ENST00000318493	p.R1297I	c.3890	Receptor Tyrosine Kinases	1.018075111	0	1
4048	MET	ENST00000318493	p.R1297K	c.3890	Receptor Tyrosine Kinases	1.018075111	0	1
4048	MET	ENST00000318493	p.Y1374C	c.4121	Receptor Tyrosine Kinases	0.020263118	6.625	1
4112	FLT3	ENST00000380982	p.E883K	c.2647	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.254193668	2.976	2
4112	FLT3	ENST00000380982	p.A814V	c.2441	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.254193668	0	1
4112	FLT3	ENST00000380982	p.A814T	c.2440	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	1.254193668	0	1
4130	CTNNB1	ENST00000349496	p.G367V	c.1100	Armadillo repeat containing	0.007031265	7.152	1
4130	CTNNB1	ENST00000349496	p.L402F	c.1204	Armadillo repeat containing	0.007031265	0	1
4194	DNMT1	ENST00000359526	p.R1305H	c.3914	Zinc fingers, CXXC-type	0.121748806	0	1
4194	DNMT1	ENST00000359526	p.D875N	c.2623	Zinc fingers, CXXC-type	0.037718582	4.849	1
4194	DNMT1	ENST00000359526	p.P867S	c.2599	Zinc fingers, CXXC-type	0.090071211	3.522	1
4257	JAK3	ENST00000458235	p.G969V	c.2906	Unclassified	0.0093294	6.744	1
4257	JAK3	ENST00000458235	p.R866M	c.2597	Unclassified	0.0093294	0	1
4292	CTNNB1	ENST00000349496	p.K354T	c.1061	Armadillo repeat containing	0.130695575	2.963	1
4292	CTNNB1	ENST00000349496	p.N387K	c.1161	Armadillo repeat containing	0.147337785	0	1
4292	CTNNB1	ENST00000349496	p.N426D	c.1276	Armadillo repeat containing	0.021538824	5.711	1
4341	KRAS	ENST00000256078	p.D132G	c.395	RAS type family GTPases	0.035133716	4.831	1
4341	KRAS	ENST00000256078	p.K5E	c.13	RAS type family GTPases	0.035133716	0	1
4400	DNMT3A	ENST00000321117	p.R882H	c.2645	Unclassified	22.07823728	0	23
4400	DNMT3A	ENST00000321117	p.K680R	c.2039	Unclassified	1.799457409	3.676	1
4495	PPP2R1A	ENST00000322088	p.A232T	c.694	Protein phosphatase 2 regulatory subunits	0.11426469	3.149	1
4495	PPP2R1A	ENST00000322088	p.Q237R	c.710	Protein phosphatase 2 regulatory subunits	0.015104365	6.203	1
4495	PPP2R1A	ENST00000322088	p.A273V	c.818	Protein phosphatase 2 regulatory subunits	0.126308519	0	1
4496	EGFR	ENST00000275493	p.I475V	c.1423	Receptor Tyrosine Kinases	0.027093405	0	1
4496	EGFR	ENST00000275493	p.G503C	c.1507	Receptor Tyrosine Kinases	0.011800567	6.405	1
4496	EGFR	ENST00000275493	p.P512S	c.1534	Receptor Tyrosine Kinases	0.015292838	6.031	1
4508	DNMT1	ENST00000359526	p.D599N	c.1795	Zinc fingers, CXXC-type	0.04744069	6.495	1
4508	DNMT1	ENST00000359526	p.E448K	c.1342	Zinc fingers, CXXC-type	2.011086901	0	3
4541	ABL1	ENST00000372348	p.D400Y	c.1198	SH2 domain containing	0.138384077	2.906	1
4541	ABL1	ENST00000372348	p.F401L	c.1203	SH2 domain containing	0.042208491	4.747	1
4541	ABL1	ENST00000372348	p.Y459H	c.1375	SH2 domain containing	0.170655748	0	1
4574	ABL1	ENST00000372348	p.F91V	c.271	SH2 domain containing	1.181872585	0	2
4574	ABL1	ENST00000372348	p.V130L	c.388	SH2 domain containing	0.363745171	2.459	1
4733	RET	ENST00000355710	p.G823E	c.2468	Cadherin-related Receptor Tyrosine Kinases	0.092333629	0	1
4733	RET	ENST00000355710	p.R844Q	c.2531	Cadherin-related Receptor Tyrosine Kinases	0.092333629	3.437	1
4734	MET	ENST00000318493	p.V1110I	c.3328	Receptor Tyrosine Kinases	0.017062821	5.873	1
4734	MET	ENST00000318493	p.D1246H	c.3736	Receptor Tyrosine Kinases	0.017062821	0	1
4753	KIT	ENST00000288135	p.F772V	c.2314	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.190386092	0	1
4753	KIT	ENST00000288135	p.R804W	c.2410	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.190386092	2.393	1
4857	RET	ENST00000355710	p.R813W	c.2437	Cadherin-related Receptor Tyrosine Kinases	0.079109787	4.66	1
4857	RET	ENST00000355710	p.R912L	c.2735	Cadherin-related Receptor Tyrosine Kinases	1.039554894	0	1
4857	RET	ENST00000355710	p.R912Q	c.2735	Cadherin-related Receptor Tyrosine Kinases	1.039554894	0	1
4932	IDH2	ENST00000330062	p.R172S	c.516	Unclassified	9.380103138	5.483	2
4932	IDH2	ENST00000330062	p.R172K	c.515	Unclassified	9.380103138	5.483	7
4932	IDH2	ENST00000330062	p.R172M	c.515	Unclassified	9.380103138	5.483	1
4932	IDH2	ENST00000330062	p.R140L	c.419	Unclassified	16.22359008	0	1
4932	IDH2	ENST00000330062	p.R140Q	c.419	Unclassified	16.22359008	0	15
4932	IDH2	ENST00000330062	p.R140W	c.418	Unclassified	16.22359008	0	1
5007	EGFR	ENST00000275493	p.E160K	c.478	Receptor Tyrosine Kinases	0.01551707	6.01	1
5007	EGFR	ENST00000275493	p.S198R	c.594	Receptor Tyrosine Kinases	0.01551707	0	1
5030	MDM2	ENST00000462284	p.R422I	c.1265_1266	Zinc fingers, RAN binding-type	0.021123607	0	1
5030	MDM2	ENST00000462284	p.I446V	c.1336	Zinc fingers, RAN binding-type	0.021123607	5.565	1

5035	KIT	ENST00000288135	p.A219V	c.656	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.062847536	0	1
5035	KIT	ENST00000288135	p.T302I	c.905	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.062847536	3.992	1
5041	SKP2	ENST00000274255	p.H199N	c.595	F-box and leucine-rich repeat proteins	0.147265435	9.489	1
5041	SKP2	ENST00000274255	p.G200C	c.598	F-box and leucine-rich repeat proteins	2.011117218	0	1
5041	SKP2	ENST00000274255	p.G200D	c.599	F-box and leucine-rich repeat proteins	2.011117218	0	2
5041	SKP2	ENST00000274255	p.T225I	c.674	F-box and leucine-rich repeat proteins	0.17226726	6.684	1
5048	PPP2R1A	ENST00000322088	p.M291K	c.872	Protein phosphatase 2 regulatory subunits	0.117603263	0	1
5048	PPP2R1A	ENST00000322088	p.C329F	c.986	Protein phosphatase 2 regulatory subunits	0.117603263	3.088	1
5126	ERBB2	ENST00000269571	p.V94I	c.280	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.011957006	6.386	1
5126	ERBB2	ENST00000269571	p.R138W	c.412	CD molecules Receptor Tyrosine Kinases minor histocompatibility antigens	0.011957006	0	1
5214	EGFR	ENST00000275493	p.G331R	c.991	Receptor Tyrosine Kinases	0.014219357	6.136	1
5214	EGFR	ENST00000275493	p.T363I	c.1088	Receptor Tyrosine Kinases	0.014219357	0	1
5450	KIT	ENST00000288135	p.Y418S	c.1253	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.061341191	0	1
5450	KIT	ENST00000288135	p.E490D	c.1470	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.061341191	4.027	1
5551	DNMT3A	ENST00000321117	p.R729Q	c.2186	Unclassified	2.003513197	0	2
5551	DNMT3A	ENST00000321117	p.R729W	c.2185	Unclassified	2.003513197	0	1
5551	DNMT3A	ENST00000321117	p.G685E	c.2054	Unclassified	0.01053959	8.153	1
5648	PTPN11	ENST00000351677	p.H114Y	c.340	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	1.093934419	0	2
5648	PTPN11	ENST00000351677	p.L136H	c.407	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	0.202004281	3.437	1
5648	PTPN11	ENST00000351677	p.Q214K	c.640	Protein tyrosine phosphatases, non-receptor type SH2 domain containing	0.020538603	9.287	1
5734	MET	ENST00000318493	p.S525Y	c.1574	Receptor Tyrosine Kinases	0.106137031	3.236	1
5734	MET	ENST00000318493	p.T618M	c.1853	Receptor Tyrosine Kinases	0.106137031	0	1
5742	JAK2	ENST00000539801	p.W737L	c.2210	SH2 domain containing	0.026941986	5.214	1
5742	JAK2	ENST00000539801	p.H770L	c.2309	SH2 domain containing	0.026941986	0	1
5835	FLT3	ENST00000380982	p.E415K	c.1243	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.00841979	6.892	1
5835	FLT3	ENST00000380982	p.R387Q	c.1160	CD molecules Immunoglobulin-like domain containing Receptor Tyrosine Kinases	0.00841979	0	1

Supplementary Table 8. Tumor suppressor intra-molecular clusters with protein domain annotation

Cluster ID	Gene	Transcript (Ensembl74)	HGVS Protein Annotation	HGVS Coding Position	Pfam Protein Domain	Closeness Centrality	Geodesic From Centroid	No. Patient Samples
7	ATRX	ENST00000373344	p.Y266N	c.796	PHD-type; atypical.	0.239483805	0	1
7	ATRX	ENST00000373344	p.C220W	c.660	PHD-type; atypical.	0.239483805	2.062	1
11	TP53	ENST00000445888	p.E286A	c.857	Interaction with E4F1	18.25668213	7.448	1
11	TP53	ENST00000445888	p.E286G	c.857	Interaction with E4F1	18.25668213	7.448	3
11	TP53	ENST00000445888	p.E286V	c.857	Interaction with E4F1	18.25668213	7.448	1
11	TP53	ENST00000445888	p.E286K	c.856	Interaction with E4F1	18.25668213	7.448	6
11	TP53	ENST00000445888	p.E286Q	c.856	Interaction with E4F1	18.25668213	7.448	1
11	TP53	ENST00000445888	p.E285K	c.853	Interaction with E4F1 NULL	21.63403254	4.973	7
11	TP53	ENST00000445888	p.T284P	c.850	NULL T->E: Inhibits strongly it	0.498748218	8.979	1
11	TP53	ENST00000445888	p.R283P	c.848	Interaction with E4F1	5.080017638	8.935	3
11	TP53	ENST00000445888	p.R282Q	c.845	Interaction with E4F1	37.5582261	6.317	1
11	TP53	ENST00000445888	p.R282G	c.844	Interaction with E4F1	37.5582261	6.317	1
11	TP53	ENST00000445888	p.R282W	c.844	Interaction with E4F1	37.5582261	6.317	27
11	TP53	ENST00000445888	p.D281E	c.843	Interaction with E4F1	14.6666203	6.654	1
11	TP53	ENST00000445888	p.D281A	c.842	Interaction with E4F1	14.6666203	6.654	1
11	TP53	ENST00000445888	p.D281G	c.842	Interaction with E4F1	14.6666203	6.654	1
11	TP53	ENST00000445888	p.D281P	c.842_841	Interaction with E4F1	14.6666203	6.654	1
11	TP53	ENST00000445888	p.D281V	c.842	Interaction with E4F1	14.6666203	6.654	2
11	TP53	ENST00000445888	p.D281H	c.841	Interaction with E4F1	14.6666203	6.654	1
11	TP53	ENST00000445888	p.D281N	c.841	Interaction with E4F1	14.6666203	6.654	2
11	TP53	ENST00000445888	p.D281Y	c.841	Interaction with E4F1	14.6666203	6.654	4
11	TP53	ENST00000445888	p.R280S	c.840	Interaction with DNA	16.06173724	9.403	1
11	TP53	ENST00000445888	p.R280I	c.839	Interaction with DNA	16.06173724	9.403	3
11	TP53	ENST00000445888	p.R280K	c.839	Interaction with DNA	16.06173724	9.403	4
11	TP53	ENST00000445888	p.R280T	c.839	Interaction with DNA	16.06173724	9.403	4
11	TP53	ENST00000445888	p.R280G	c.838	Interaction with DNA	16.06173724	9.403	3
11	TP53	ENST00000445888	p.G279E	c.836	Interaction with DNA	4.471111581	8.245	2
11	TP53	ENST00000445888	p.VCACPG274in_frame_del	c.836_819	Interaction with DNA	24.72897031	4.647	1
11	TP53	ENST00000445888	p.G279R	c.835	Interaction with DNA	4.471111581	8.245	1
11	TP53	ENST00000445888	p.P278H	c.833	Interaction with DNA	23.82425015	5.536	2
11	TP53	ENST00000445888	p.P278L	c.833	Interaction with DNA	23.82425015	5.536	4
11	TP53	ENST00000445888	p.P278R	c.833	Interaction with DNA	23.82425015	5.536	3
11	TP53	ENST00000445888	p.P278A	c.832	Interaction with DNA	23.82425015	5.536	3
11	TP53	ENST00000445888	p.P278S	c.832	Interaction with DNA	23.82425015	5.536	4
11	TP53	ENST00000445888	p.P278T	c.832	Interaction with DNA	23.82425015	5.536	2
11	TP53	ENST00000445888	p.C277F	c.830	Interaction with DNA	6.522796351	7.21	4
11	TP53	ENST00000445888	p.A276P	c.826	Interaction with DNA	7.810869531	6.777	2
11	TP53	ENST00000445888	p.C275F	c.824	Interaction with DNA	25.29930843	3.886	4
11	TP53	ENST00000445888	p.C275Y	c.824	Interaction with DNA	25.29930843	3.886	5
11	TP53	ENST00000445888	p.V274D	c.821	Interaction with DNA	24.72897031	4.647	1
11	TP53	ENST00000445888	p.V274G	c.821	Interaction with DNA	24.72897031	4.647	1
11	TP53	ENST00000445888	p.V274F	c.820	Interaction with DNA	24.72897031	4.647	2
11	TP53	ENST00000445888	p.V274L	c.820	Interaction with DNA	24.72897031	4.647	1
11	TP53	ENST00000445888	p.R273H	c.818	Interaction with DNA NULL	133.2808656	0	49
11	TP53	ENST00000445888	p.R273L	c.818	Interaction with DNA NULL	133.2808656	0	9
11	TP53	ENST00000445888	p.R273P	c.818	Interaction with DNA NULL	133.2808656	0	3
11	TP53	ENST00000445888	p.R273C	c.817	Interaction with DNA NULL	133.2808656	0	55
11	TP53	ENST00000445888	p.R273S	c.817	Interaction with DNA NULL	133.2808656	0	3
11	TP53	ENST00000445888	p.V272G	c.815	Interaction with E4F1	19.68404124	5.011	1
11	TP53	ENST00000445888	p.V272M	c.814	Interaction with E4F1	19.68404124	5.011	7
11	TP53	ENST00000445888	p.E271V	c.812	Interaction with E4F1	30.274455	3.559	1

11	TP53	ENST00000445888	p.E271K	c.811	Interaction with E4F1	30.274455	3.559	6
11	TP53	ENST00000445888	p.F270C	c.809	Interaction with E4F1	16.90879978	5.136	1
11	TP53	ENST00000445888	p.F270S	c.809	Interaction with E4F1	16.90879978	5.136	3
11	TP53	ENST00000445888	p.F270I	c.808	Interaction with E4F1	16.90879978	5.136	2
11	TP53	ENST00000445888	p.F270L	c.808	Interaction with E4F1	16.90879978	5.136	2
11	TP53	ENST00000445888	p.LTI252in_frame_del	c.762_754	Interaction with AXIN1.	7.928998617	8.429	1
11	TP53	ENST00000445888	p.L252in_frame_del	c.756_754	Interaction with AXIN1.	7.928998617	8.429	1
11	TP53	ENST00000445888	p.L252P	c.755	Interaction with AXIN1.	7.928998617	8.429	1
11	TP53	ENST00000445888	p.I251S	c.752	Interaction with AXIN1. NULL	17.47192205	4.644	1
11	TP53	ENST00000445888	p.I251F	c.751	Interaction with AXIN1. NULL	17.47192205	4.644	1
11	TP53	ENST00000445888	p.P250L	c.750_749	Interaction with AXIN1. NULL	16.0390717	5.888	7
11	TP53	ENST00000445888	p.R249S	c.747	Interaction with AXIN1. NULL	30.65039501	8.464	6
11	TP53	ENST00000445888	p.R249M	c.746	Interaction with AXIN1. NULL	30.65039501	8.464	5
11	TP53	ENST00000445888	p.R249T	c.746	Interaction with AXIN1. NULL	30.65039501	8.464	1
11	TP53	ENST00000445888	p.R249G	c.745	Interaction with AXIN1. NULL	30.65039501	8.464	6
11	TP53	ENST00000445888	p.R249W	c.745	Interaction with AXIN1. NULL	30.65039501	8.464	2
11	TP53	ENST00000445888	p.R248L	c.743	NULL R->S: Does not induce SNAI1 degradation	101.8821061	4.363	2
11	TP53	ENST00000445888	p.R248P	c.743	NULL R->S: Does not induce SNAI1 degradation	101.8821061	4.363	3
11	TP53	ENST00000445888	p.R248Q	c.743	NULL R->S: Does not induce SNAI1 degradation	101.8821061	4.363	46
11	TP53	ENST00000445888	p.R248G	c.742	NULL R->S: Does not induce SNAI1 degradation	101.8821061	4.363	1
11	TP53	ENST00000445888	p.R248W	c.742_741	NULL R->S: Does not induce SNAI1 degradation	101.8821061	4.363	42
11	TP53	ENST00000445888	p.M246I	c.738	Interacts with the 53BP2 SH3 domain NULL	15.91818977	6.068	1
11	TP53	ENST00000445888	p.M246R	c.737	Interacts with the 53BP2 SH3 domain NULL	15.91818977	6.068	1
11	TP53	ENST00000445888	p.N55239in_frame_del	c.723_715	Interaction with AXIN1. NULL	18.7919751	5.874	1
11	TP53	ENST00000445888	p.S241C	c.722	Interacts with the 53BP2 SH3 domain NULL	21.03328261	4.99	3
11	TP53	ENST00000445888	p.S241F	c.722	Interacts with the 53BP2 SH3 domain NULL	21.03328261	4.99	9
11	TP53	ENST00000445888	p.S241Y	c.722	Interacts with the 53BP2 SH3 domain NULL	21.03328261	4.99	1
11	TP53	ENST00000445888	p.S241P	c.721	Interacts with the 53BP2 SH3 domain NULL	21.03328261	4.99	1
11	TP53	ENST00000445888	p.MCN237in_frame_del	c.718_710	Interaction with AXIN1.	40.93035981	9.361	1
11	TP53	ENST00000445888	p.S240G	c.718	Interaction with AXIN1. NULL	27.59976191	2.866	2
11	TP53	ENST00000445888	p.N239S	c.716	Interaction with AXIN1. NULL	18.7919751	5.874	4
11	TP53	ENST00000445888	p.N239D	c.715	Interaction with AXIN1. NULL	18.7919751	5.874	1
11	TP53	ENST00000445888	p.C238F	c.713	NULL Zinc	48.43219353	6.467	9
11	TP53	ENST00000445888	p.C238Y	c.713	NULL Zinc	48.43219353	6.467	8
11	TP53	ENST00000445888	p.C238S	c.712	NULL Zinc	48.43219353	6.467	1
11	TP53	ENST00000445888	p.M237I	c.711	Interaction with AXIN1.	40.93035981	9.361	8
11	TP53	ENST00000445888	p.M237K	c.710	Interaction with AXIN1.	40.93035981	9.361	2
11	TP53	ENST00000445888	p.M237V	c.709	Interaction with AXIN1.	40.93035981	9.361	2
11	TP53	ENST00000445888	p.Y236C	c.707	Interaction with AXIN1.	26.53630716	4.729	7
11	TP53	ENST00000445888	p.Y236D	c.706	Interaction with AXIN1.	26.53630716	4.729	1
11	TP53	ENST00000445888	p.Y234C	c.701	Interaction with AXIN1.	27.75808273	7.599	10
11	TP53	ENST00000445888	p.Y234S	c.701	Interaction with AXIN1.	27.75808273	7.599	1
11	TP53	ENST00000445888	p.Y234H	c.700	Interaction with AXIN1.	27.75808273	7.599	1
11	TP53	ENST00000445888	p.Y234N	c.700	Interaction with AXIN1.	27.75808273	7.599	1
11	TP53	ENST00000445888	p.R196P	c.587	Interaction with AXIN1.	26.65042544	8.911	2
11	TP53	ENST00000445888	p.I195M	c.585	Interaction with AXIN1.	29.40683052	8.227	1
11	TP53	ENST00000445888	p.I195N	c.584	Interaction with AXIN1.	29.40683052	8.227	3
11	TP53	ENST00000445888	p.I195S	c.584	Interaction with AXIN1.	29.40683052	8.227	2
11	TP53	ENST00000445888	p.I195T	c.584	Interaction with AXIN1.	29.40683052	8.227	14
11	TP53	ENST00000445888	p.I195F	c.583	Interaction with AXIN1.	29.40683052	8.227	1
11	TP53	ENST00000445888	p.L194H	c.581	Interaction with AXIN1.	25.86379943	7.946	1
11	TP53	ENST00000445888	p.L194P	c.581	Interaction with AXIN1.	25.86379943	7.946	2
11	TP53	ENST00000445888	p.L194R	c.581	Interaction with AXIN1.	25.86379943	7.946	6

11	TP53	ENST00000445888	p.L194F	c.580	Interaction with AXIN1.	25.86379943	7.946	1
11	TP53	ENST00000445888	p.R181P	c.542	BH2 Interaction with AXIN1. NULL	14.97347547	7.662	1
11	TP53	ENST00000445888	p.H179Q	c.537	Zinc	42.12317148	9.337	2
11	TP53	ENST00000445888	p.H179L	c.536	Zinc	42.12317148	9.337	2
11	TP53	ENST00000445888	p.H179P	c.536	Zinc	42.12317148	9.337	1
11	TP53	ENST00000445888	p.H179R	c.536	Zinc	42.12317148	9.337	19
11	TP53	ENST00000445888	p.H179D	c.535	Zinc	42.12317148	9.337	1
11	TP53	ENST00000445888	p.H179Y	c.535	Zinc	42.12317148	9.337	6
11	TP53	ENST00000445888	p.C176F	c.527	NULL Zinc	32.59544664	9.594	10
11	TP53	ENST00000445888	p.C176S	c.527	NULL Zinc	32.59544664	9.594	1
11	TP53	ENST00000445888	p.C176Y	c.527	NULL Zinc	32.59544664	9.594	9
11	TP53	ENST00000445888	p.R175H	c.524	Interaction with AXIN1. NULL	87.61688858	8.539	63
11	TP53	ENST00000445888	p.R175C	c.523	Interaction with AXIN1. NULL	87.61688858	8.539	4
11	TP53	ENST00000445888	p.R175G	c.523	Interaction with AXIN1. NULL	87.61688858	8.539	4
11	TP53	ENST00000445888	p.V173G	c.518	Gln-rich Interaction with AXIN1.	19.5856813	8.297	1
11	TP53	ENST00000445888	p.V173L	c.517	Gln-rich Interaction with AXIN1.	19.5856813	8.297	7
11	TP53	ENST00000445888	p.V173M	c.517	Gln-rich Interaction with AXIN1.	19.5856813	8.297	6
11	TP53	ENST00000445888	p.H168L	c.503	Gln-rich Interaction with AXIN1. NULL	28.12904525	7.829	2
11	TP53	ENST00000445888	p.H168P	c.503	Gln-rich Interaction with AXIN1. NULL	28.12904525	7.829	1
11	TP53	ENST00000445888	p.H168R	c.503	Gln-rich Interaction with AXIN1. NULL	28.12904525	7.829	1
11	TP53	ENST00000445888	p.K164E	c.490	Gln-rich Interaction with AXIN1.	17.05551583	5.151	3
11	TP53	ENST00000445888	p.Y163C	c.488	Gln-rich Interaction with AXIN1. NULL	27.20029547	7.808	10
11	TP53	ENST00000445888	p.IY162in_frame_delN	c.487_485	Gln-rich Interaction with AXIN1.	5.862388683	7.729	1
11	TP53	ENST00000445888	p.Y163H	c.487	Gln-rich Interaction with AXIN1. NULL	27.20029547	7.808	1
11	TP53	ENST00000445888	p.Y163N	c.487	Gln-rich Interaction with AXIN1. NULL	27.20029547	7.808	1
11	TP53	ENST00000445888	p.A116in_frame_del	c.486_481	Interaction with AXIN1.	10.49216698	8.471	1
11	TP53	ENST00000445888	p.A161T	c.481	Interaction with AXIN1.	10.49216698	8.471	3
11	TP53	ENST00000445888	p.V143A	c.428	Interaction with AXIN1.	11.92536866	8.894	1
11	TP53	ENST00000445888	p.V143E	c.428	Interaction with AXIN1.	11.92536866	8.894	1
11	TP53	ENST00000445888	p.V143G	c.428	Interaction with AXIN1.	11.92536866	8.894	2
11	TP53	ENST00000445888	p.V143M	c.427	Interaction with AXIN1.	11.92536866	8.894	2
11	TP53	ENST00000445888	p.AKTCP138in_frame_del	c.425_411	Interaction with AXIN1.	12.66526936	6.762	1
11	TP53	ENST00000445888	p.KTCP139in_frame_del	c.425_414	Interaction with AXIN1.	9.582713075	7.722	1
11	TP53	ENST00000445888	p.KTCP139in_frame_delT	c.424_416	Interaction with AXIN1.	9.582713075	7.722	1
11	TP53	ENST00000445888	p.C141W	c.423	Interaction with AXIN1.	19.96405103	7.959	3
11	TP53	ENST00000445888	p.C141S	c.422	Interaction with AXIN1.	19.96405103	7.959	1
11	TP53	ENST00000445888	p.C141Y	c.422	Interaction with AXIN1.	19.96405103	7.959	5
11	TP53	ENST00000445888	p.C141R	c.421	Interaction with AXIN1.	19.96405103	7.959	2
11	TP53	ENST00000445888	p.K139N	c.417	Interaction with AXIN1.	9.582713075	7.722	2
11	TP53	ENST00000445888	p.A138V	c.413	Interaction with AXIN1.	12.66526936	6.762	1
11	TP53	ENST00000445888	p.A138T	c.412	Interaction with AXIN1.	12.66526936	6.762	1
11	TP53	ENST00000445888	p.L137Q	c.410	Interaction with AXIN1.	18.33718489	6.413	1
11	TP53	ENST00000445888	p.Q136H	c.408	Interaction with AXIN1.	14.95835856	5.373	1
11	TP53	ENST00000445888	p.Q136P	c.407	Interaction with AXIN1.	14.95835856	5.373	1
11	TP53	ENST00000445888	p.Q136E	c.406	Interaction with AXIN1.	14.95835856	5.373	3
11	TP53	ENST00000445888	p.C135W	c.405	Interaction with AXIN1.	46.52115393	2.086	2
11	TP53	ENST00000445888	p.C135F	c.404	Interaction with AXIN1.	46.52115393	2.086	2
11	TP53	ENST00000445888	p.C135S	c.404	Interaction with AXIN1.	46.52115393	2.086	1
11	TP53	ENST00000445888	p.C135Y	c.404	Interaction with AXIN1.	46.52115393	2.086	3
11	TP53	ENST00000445888	p.F134L	c.400	Interaction with AXIN1.	26.92128345	3.171	2
11	TP53	ENST00000445888	p.F134V	c.400	Interaction with AXIN1.	26.92128345	3.171	1
11	TP53	ENST00000445888	p.M133K	c.398	Interaction with AXIN1.	48.41880559	1.841	3
11	TP53	ENST00000445888	p.K132N	c.396	Interaction with AXIN1.	39.90153437	3.369	9

11	TP53	ENST00000445888	p.K132M	c.395	Interaction with AXIN1.	39.90153437	3.369	1
11	TP53	ENST00000445888	p.K132R	c.395	Interaction with AXIN1.	39.90153437	3.369	3
11	TP53	ENST00000445888	p.K132T	c.395	Interaction with AXIN1.	39.90153437	3.369	2
11	TP53	ENST00000445888	p.K132E	c.394	Interaction with AXIN1.	39.90153437	3.369	3
11	TP53	ENST00000445888	p.PAL128in_frame_del	c.390_382	Interaction with AXIN1.	5.790500811	9.226	1
11	TP53	ENST00000445888	p.L130P	c.389	Interaction with AXIN1.	11.85161775	7.594	1
11	TP53	ENST00000445888	p.L130F	c.388	Interaction with AXIN1.	11.85161775	7.594	4
11	TP53	ENST00000445888	p.L130V	c.388	Interaction with AXIN1.	11.85161775	7.594	2
11	TP53	ENST00000445888	p.S127C	c.380	Interaction with AXIN1.	19.57954726	9.053	1
11	TP53	ENST00000445888	p.S127F	c.380	Interaction with AXIN1.	19.57954726	9.053	4
11	TP53	ENST00000445888	p.S127Y	c.380	Interaction with AXIN1.	19.57954726	9.053	4
11	TP53	ENST00000445888	p.S127P	c.379	Interaction with AXIN1.	19.57954726	9.053	2
11	TP53	ENST00000445888	p.Y126C	c.377	Interaction with AXIN1.	13.42486793	8.443	2
11	TP53	ENST00000445888	p.Y126S	c.377	Interaction with AXIN1.	13.42486793	8.443	1
11	TP53	ENST00000445888	p.Y126D	c.376	Interaction with AXIN1.	13.42486793	8.443	1
11	TP53	ENST00000445888	p.Y126N	c.376	Interaction with AXIN1.	13.42486793	8.443	1
11	TP53	ENST00000445888	p.T125M	c.374	Interaction with AXIN1.	13.98846025	6.475	2
11	TP53	ENST00000445888	p.T125P	c.373	Interaction with AXIN1.	13.98846025	6.475	2
11	TP53	ENST00000445888	p.C124G	c.370	Interaction with AXIN1.	3.95442853	5.844	1
11	TP53	ENST00000445888	p.K120E	c.358	N6-acetyllysine; by KAT6A	7.595218439	8.898	1
11	TP53	ENST00000445888	p.FLH113in_frame_del	c.344_336	Required for interaction with FBXO42	7.767972993	8.585	1
11	TP53	ENST00000445888	p.F113in_frame_del	c.341_339	Required for interaction with FBXO42	7.767972993	8.585	1
11	TP53	ENST00000445888	p.F113L	c.339	Required for interaction with FBXO42	7.767972993	8.585	1
11	TP53	ENST00000445888	p.F113C	c.338	Required for interaction with FBXO42	7.767972993	8.585	2
11	TP53	ENST00000445888	p.F113V	c.337	Required for interaction with FBXO42	7.767972993	8.585	1
11	TP53	ENST00000445888	p.L111P	c.332	Required for interaction with ZNF385A	7.555025923	8.656	1
11	TP53	ENST00000445888	p.L111Q	c.332	Required for interaction with ZNF385A	7.555025923	8.656	1
11	TP53	ENST00000445888	p.L111R	c.332	Required for interaction with ZNF385A	7.555025923	8.656	1
11	TP53	ENST00000445888	p.L111M	c.331	Required for interaction with ZNF385A	7.555025923	8.656	1
11	TP53	ENST00000445888	p.Y107C	c.320	Required for interaction with ZNF385A	12.60192522	8.855	1
11	TP53	ENST00000445888	p.Y107D	c.319	Required for interaction with ZNF385A	12.60192522	8.855	2
11	TP53	ENST00000445888	p.S106R	c.318	Required for interaction with ZNF385A	13.98003045	8.258	1
11	TP53	ENST00000445888	p.G105D	c.314	Required for interaction with ZNF385A	12.83362803	7.757	1
11	TP53	ENST00000445888	p.G105C	c.313	Required for interaction with ZNF385A	12.83362803	7.757	2
11	TP53	ENST00000445888	p.G105R	c.313	Required for interaction with ZNF385A	12.83362803	7.757	2
11	TP53	ENST00000445888	p.G105S	c.313	Required for interaction with ZNF385A	12.83362803	7.757	1
11	TP53	ENST00000445888	p.Q104H	c.312	Required for interaction with ZNF385A	5.400866919	9.939	1
38	VHL	ENST00000256474	p.S65L	c.194	NULL	5.516677126	2.215	2
38	VHL	ENST00000256474	p.S65W	c.194	NULL	5.516677126	2.215	1
38	VHL	ENST00000256474	p.P86L	c.257	NULL	0.42181287	8.59	1
38	VHL	ENST00000256474	p.W88R	c.262	NULL	3.74191187	4.943	1
38	VHL	ENST00000256474	p.W88L	c.263	NULL	3.74191187	4.943	2
38	VHL	ENST00000256474	p.L89H	c.266	NULL	9.255959724	0	7
38	VHL	ENST00000256474	p.L89P	c.266	NULL	9.255959724	0	2
38	VHL	ENST00000256474	p.N90I	c.269	NULL	0.748717032	5.331	1
38	VHL	ENST00000256474	p.G93V	c.278	NULL	0.163533077	7.516	1
38	VHL	ENST00000256474	p.S111N	c.332	Involved in binding to CCT complex	6.557684786	8.4	5
38	VHL	ENST00000256474	p.S111R	c.333	Involved in binding to CCT complex	6.557684786	8.4	2
38	VHL	ENST00000256474	p.Y112D	c.334	Involved in binding to CCT complex	0.197577875	8.885	1
38	VHL	ENST00000256474	p.G114R	c.340	Involved in binding to CCT complex	3.61363956	5.74	2
38	VHL	ENST00000256474	p.G114R	c.340	Involved in binding to CCT complex NULL	3.61363956	5.74	2
38	VHL	ENST00000256474	p.H115N	c.343	Involved in binding to CCT complex	3.260166059	5.469	2
38	VHL	ENST00000256474	p.H115Y	c.343	Involved in binding to CCT complex	3.260166059	5.469	1

38	VHL	ENST00000256474	p.L116in_frame_del	c.346_348	Involved in binding to CCT complex	2.302171553	2.759	1
38	VHL	ENST00000256474	p.W117C	c.351	Involved in binding to CCT complex	0.968460014	4.792	1
38	VHL	ENST00000256474	p.L135F	c.405	Involved in binding to CCT complex NULL	1.641428999	4.024	2
38	VHL	ENST00000256474	p.F136V	c.406	Involved in binding to CCT complex NULL	2.017421545	8.774	1
38	VHL	ENST00000256474	p.F136Y	c.407	Involved in binding to CCT complex NULL	2.017421545	8.774	1
38	VHL	ENST00000256474	p.R205C	c.613	NULL	0.096858109	8.571	1
117	PTEN	ENST00000371953	p.Y46H	c.136	Phosphatase tensin-type	0.413699317	9.951	1
117	PTEN	ENST00000371953	p.Y68N	c.202	Phosphatase tensin-type	2.390297278	9.726	1
117	PTEN	ENST00000371953	p.Y68C	c.203	Phosphatase tensin-type	2.390297278	9.726	1
117	PTEN	ENST00000371953	p.L70H	c.209	Phosphatase tensin-type	5.927272214	3.587	1
117	PTEN	ENST00000371953	p.C71Y	c.212	Phosphatase tensin-type	5.122446591	4.072	2
117	PTEN	ENST00000371953	p.F90S	c.269	Phosphatase tensin-type	7.715704853	2.989	1
117	PTEN	ENST00000371953	p.D92H	c.274	D->A: 700-fold reduction in phosphatas	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92Y	c.274	D->A: 700-fold reduction in phosphatas	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92G	c.275	D->A: 700-fold reduction in phosphatas	9.329032304	3.545	1
117	PTEN	ENST00000371953	p.D92E	c.276	D->A: 700-fold reduction in phosphatas	9.329032304	3.545	2
117	PTEN	ENST00000371953	p.H93L	c.278	H->A: 75% reduction in phosphatas	5.005043401	4.466	1
117	PTEN	ENST00000371953	p.H93R	c.278	H->A: 75% reduction in phosphatas	5.005043401	4.466	2
117	PTEN	ENST00000371953	p.P95L	c.284	Phosphatase tensin-type	0.867925039	8.029	1
117	PTEN	ENST00000371953	p.P96A	c.286	Phosphatase tensin-type	1.336632939	9.847	1
117	PTEN	ENST00000371953	p.P96T	c.286	Phosphatase tensin-type	1.336632939	9.847	1
117	PTEN	ENST00000371953	p.H123D	c.367	Phosphatase tensin-type	5.644376973	6.646	2
117	PTEN	ENST00000371953	p.H123Y	c.367	Phosphatase tensin-type	5.644376973	6.646	2
117	PTEN	ENST00000371953	p.H123L	c.368	Phosphatase tensin-type	5.644376973	6.646	1
117	PTEN	ENST00000371953	p.C124R	c.370	C->A: Loss of protein phosphatas	0.947272395	7.251	1
117	PTEN	ENST00000371953	p.KAGKGRGV125in_frame_del	c.373_399	K->M: Reduced phosphatase activit	2.784531773	6.595	1
117	PTEN	ENST00000371953	p.K125N	c.375	K->M: Reduced phosphatase activit	2.784531773	6.595	1
117	PTEN	ENST00000371953	p.G127R	c.379	Phosphatase tensin-type	3.87047826	9.287	3
117	PTEN	ENST00000371953	p.G127V	c.380	Phosphatase tensin-type	3.87047826	9.287	1
117	PTEN	ENST00000371953	p.K128Q	c.382	K->R: Does not reduce phosphatas	3.399057354	8.882	2
117	PTEN	ENST00000371953	p.K128N	c.384	K->R: Does not reduce phosphatas	3.399057354	8.882	1
117	PTEN	ENST00000371953	p.G129E	c.386	Phosphatase tensin-type	3.864313046	7.305	2
117	PTEN	ENST00000371953	p.G129V	c.386	Phosphatase tensin-type	3.864313046	7.305	2
117	PTEN	ENST00000371953	p.R130G	c.388	R->M: Does not affect the ability t	58.12861928	0	26
117	PTEN	ENST00000371953	p.R130L	c.389	R->M: Does not affect the ability t	58.12861928	0	5
117	PTEN	ENST00000371953	p.R130P	c.389	R->M: Does not affect the ability t	58.12861928	0	4
117	PTEN	ENST00000371953	p.R130Q	c.389	R->M: Does not affect the ability t	58.12861928	0	23
117	PTEN	ENST00000371953	p.T131A	c.391	Phosphatase tensin-type	0.906423223	7.144	1
117	PTEN	ENST00000371953	p.G132D	c.395	Phosphatase tensin-type	1.411028517	9.291	2
117	PTEN	ENST00000371953	p.M134in_frame_del	c.400_402	Phosphatase tensin-type	2.154802888	6.843	1
117	PTEN	ENST00000371953	p.M134I	c.402	Phosphatase tensin-type	2.154802888	6.843	1
117	PTEN	ENST00000371953	p.Y155C	c.464	Phosphatase tensin-type	2.376271263	5.997	1
117	PTEN	ENST00000371953	p.Q171K	c.511	Q->A,E: 75% reduction in phosphatas	4.784147755	3.96	1
117	PTEN	ENST00000371953	p.H272P	c.815	C2 tensin-type.	1.550471222	9.723	1
117	PTEN	ENST00000371953	p.H272R	c.815	C2 tensin-type.	1.550471222	9.723	1
117	PTEN	ENST00000371953	p.D326G	c.977	C2 tensin-type.	1.394102772	9.083	1
133	B2M	ENST00000544417	p.R3C	c.7	NULL	0.142273416	6.198	1
133	B2M	ENST00000544417	p.A6V	c.17	NULL	0.030855348	8.422	1
133	B2M	ENST00000544417	p.Y30H	c.88	Albumin 1. Alpha-1 Extracellular. Ig-like C1-type	0.340111208	3.101	1
133	B2M	ENST00000544417	p.V47M	c.139	Alpha-1 Extracellular. Ig-like C1-type Ig-like V-type	0.546908006	2.41	1
133	B2M	ENST00000544417	p.H51P	c.152	Alpha-1 Extracellular. Ig-like C1-type	0.291694227	2.866	1
133	B2M	ENST00000544417	p.D54N	c.160	Alpha-1 Extracellular. Ig-like C1-type	0.219666436	3.632	1
133	B2M	ENST00000544417	p.SKDWFSFY7in_frame_delN	c.230_247	Alpha-1 Extracellular. Ig-like C1-type Ig-like V-type	0.071750346	7.762	1

133	B2M	ENST00000544417	p.Y83F	c.248	Alpha-1 Extracellular. Ig-like C1-type Ig-like V-type	0.594248946	0	1
133	B2M	ENST00000544417	p.P92A	c.274	Albumin 1. Ig-like C1-type	0.267574809	5.577	1
133	B2M	ENST00000544417	p.E94K	c.280	Albumin 1. Alpha-1 Extracellular. Ig-like C1-type Ig-like C2-type 1	0.233524137	5.077	1
142	PIK3R1	ENST00000396611	p.L466in_frame_del	c.1395_1397	C2 PI3K-type. NULL	1.607042583	5.78	1
142	PIK3R1	ENST00000396611	p.LYEEY466in_frame_delf	c.1398_1409	C2 PI3K-type. NULL	1.607042583	5.78	1
142	PIK3R1	ENST00000396611	p.I559V	c.1675	NULL PIK helical.	1.283062508	9.027	1
142	PIK3R1	ENST00000396611	p.I559T	c.1676	NULL PIK helical.	1.283062508	9.027	1
142	PIK3R1	ENST00000396611	p.MNSIKPDL563in_frame_dell	c.1688_1708	NULL PIK helical.	1.274656779	9.236	1
142	PIK3R1	ENST00000396611	p.NSIKPDLIQL564in_frame_del	c.1688_1717	NULL PIK helical.	6.043548531	0	1
142	PIK3R1	ENST00000396611	p.MN563in_frame_dell	c.1689_1691	NULL PIK helical.	1.274656779	9.236	1
142	PIK3R1	ENST00000396611	p.N564D	c.1690	NULL PIK helical.	6.043548531	0	5
142	PIK3R1	ENST00000396611	p.NSIKP564in_frame_dellT	c.1691_1702	NULL PIK helical.	6.043548531	0	1
149	EP300	ENST00000263253	p.H1377R	c.4130	CBP/p300-type HAT.	0.260094495	6.623	1
149	EP300	ENST00000263253	p.Y1397D	c.4189	Y->W: Loss of activity; when associate	0.368315975	7.472	1
149	EP300	ENST00000263253	p.L1398P	c.4193	Acetyl-CoA binding	0.263345414	7.076	1
149	EP300	ENST00000263253	p.D1399N	c.4195	D->Y: Abolishes autoacetylation. Does no	6.468423377	0	6
149	EP300	ENST00000263253	p.D1399Y	c.4195	D->Y: Abolishes autoacetylation. Does no	6.468423377	0	1
149	EP300	ENST00000263253	p.Y1446C	c.4337	CBP/p300-type HAT.	1.120758139	3.654	1
149	EP300	ENST00000263253	p.H1451P	c.4352	CBP/p300-type HAT.	2.114327543	2.682	1
149	EP300	ENST00000263253	p.H1451R	c.4352	CBP/p300-type HAT.	2.114327543	2.682	1
149	EP300	ENST00000263253	p.Q1455H	c.4365	CBP/p300-type HAT.	0.209536346	5.273	1
149	EP300	ENST00000263253	p.R1627W	c.4879	Binding region for E1A adenovirus	1.481693349	6.144	2
239	PBRM1	ENST00000296302	p.G626V	c.1877	NULL	0.181783125	7.784	1
239	PBRM1	ENST00000296302	p.L618H	c.1853	NULL	0.102014558	5.015	1
239	PBRM1	ENST00000296302	p.M586I	c.1758	Bromo 4.	2.191147673	0	1
239	PBRM1	ENST00000296302	p.M586K	c.1757	Bromo 4.	2.191147673	0	1
239	PBRM1	ENST00000296302	p.M586T	c.1757	Bromo 4.	2.191147673	0	1
239	PBRM1	ENST00000296302	p.E583K	c.1747	Bromo 4.	0.278465337	7.029	1
239	PBRM1	ENST00000296302	p.Y580C	c.1739	Bromo 4.	0.089261614	7.281	1
239	PBRM1	ENST00000296302	p.I575N	c.1724	Bromo 4.	0.078506101	7.474	1
239	PBRM1	ENST00000296302	p.M523R	c.1568	NULL	0.522158612	3.27	1
239	PBRM1	ENST00000296302	p.R522L	c.1565	NULL	0.396447426	4.952	1
251	CDKN2C	ENST00000371761	p.R39T	c.116	ANK 2 Protein kinase.	0.244876218	4.165	1
251	CDKN2C	ENST00000371761	p.D64N	c.190	ANK 2	0.050994492	6.922	1
251	CDKN2C	ENST00000371761	p.K66E	c.196	NULL	0.266845778	0	1
251	CDKN2C	ENST00000371761	p.D67N	c.199	NULL	0.20189462	6.652	1
251	CDKN2C	ENST00000371761	p.E99K	c.295	NULL	0.259985969	2.374	1
260	MSH6	ENST00000234420	p.A1206E	c.3617	NULL	0.011351289	6.461	1
260	MSH6	ENST00000234420	p.T1238A	c.3712	NULL	0.011351289	0	1
298	CDKN2A	ENST00000361570	p.G173A	c.518	ANK 4	0.132377231	9.933	1
298	CDKN2A	ENST00000579122	p.P114H	c.341	ANK 4	6.901241762	2.315	1
298	CDKN2A	ENST00000579122	p.P114L	c.341	ANK 4	6.901241762	2.315	5
298	CDKN2A	ENST00000579122	p.D108G	c.323	NULL	8.29796535	2.061	1
298	CDKN2A	ENST00000579122	p.D108V	c.323	NULL	8.29796535	2.061	1
298	CDKN2A	ENST00000361570	p.R163L	c.488	NULL	8.29796535	2.061	3
298	CDKN2A	ENST00000361570	p.R163Q	c.488	NULL	8.29796535	2.061	2
298	CDKN2A	ENST00000579122	p.R107H	c.320	NULL	1.103300705	3.285	1
298	CDKN2A	ENST00000579122	p.L104Q	c.311	ANK 3	0.219254757	8.747	1
298	CDKN2A	ENST00000361570	p.G143K	c.428_427	ANK 3 Protein kinase.	1.874759582	6.756	2
298	CDKN2A	ENST00000579122	p.R87P	c.260	ANK 3 Protein kinase.	0.760888456	6.314	1
298	CDKN2A	ENST00000579122	p.D84V	c.251	ANK 3	3.524810784	6.472	1
298	CDKN2A	ENST00000361570	p.R139Q	c.416	ANK 3	3.524810784	6.472	2
298	CDKN2A	ENST00000361570	p.R139G	c.415	ANK 3	9.313584339	0	1

298	CDKN2A	ENST00000579122	p.H83R	c.248	ANK 3	9.313584339	0	2
298	CDKN2A	ENST00000361570	p.A138V	c.413	ANK 3	9.313584339	0	4
298	CDKN2A	ENST00000579122	p.P81L	c.242	ANK 3	2.508113185	6.111	2
298	CDKN2A	ENST00000579122	p.R80Q	c.239	ANK 3	2.414195239	4.828	1
298	CDKN2A	ENST00000579122	p.D74V	c.221	NULL	0.514892296	7.796	1
298	CDKN2A	ENST00000579122	p.A73D	c.218	NULL	0.625702342	7.385	1
298	CDKN2A	ENST00000361570	p.D109in_frame_del	c.328_326	ANK 2 Protein kinase.	2.182287415	4.832	1
298	CDKN2A	ENST00000361570	p.D109H	c.325	ANK 2 Protein kinase.	0.843299045	9.633	1
298	CDKN2A	ENST00000579122	p.Q50H	c.150	ANK 2	4.274534366	4.349	2
298	CDKN2A	ENST00000579122	p.Q50R	c.149	ANK 2	4.274534366	4.349	1
298	CDKN2A	ENST00000579122	p.A20E	c.59	ANK 1 ATP.	1.137698738	9.653	1
299	RUNX1	ENST00000300305	p.R162S	c.486	NULL R->A: Strongly reduces DNA-binding	3.425639453	0	1
299	RUNX1	ENST00000300305	p.R162K	c.485	NULL R->A: Strongly reduces DNA-binding	3.425639453	0	1
299	RUNX1	ENST00000300305	p.R162G	c.484	NULL R->A: Strongly reduces DNA-binding	3.425639453	0	2
299	RUNX1	ENST00000300305	p.L161P	c.482	NULL Runt.	0.607115261	4.747	1
299	RUNX1	ENST00000300305	p.D160G	c.479	Runt.	0.109494128	7.171	1
299	RUNX1	ENST00000300305	p.A134P	c.400	A->T: Loss of heterodimerization NULL	0.095722634	7.278	1
299	RUNX1	ENST00000300305	p.V118A	c.353	NULL Runt.	0.10171235	9.321	1
299	RUNX1	ENST00000300305	p.P113L	c.338	NULL Runt.	1.99354314	2.421	1
299	RUNX1	ENST00000300305	p.P113S	c.337	NULL Runt.	1.99354314	2.421	1
424	STK11	ENST00000326873	p.D176A	c.527	Proton acceptor	0.175757649	7.848	1
424	STK11	ENST00000326873	p.N181Y	c.541	Protein kinase.	1.032504345	0	1
424	STK11	ENST00000326873	p.N181I	c.542	Protein kinase.	1.032504345	0	1
424	STK11	ENST00000326873	p.S216F	c.647	Protein kinase.	0.223851136	5.15	1
429	FBXW7	ENST00000603548	p.S585T	c.1754	WD 6	0.635102071	8.673	1
429	FBXW7	ENST00000603548	p.S546L	c.1637	WD 5	0.840210304	7.971	1
429	FBXW7	ENST00000603548	p.Y545C	c.1634	WD 5	3.965100103	5.313	2
429	FBXW7	ENST00000603548	p.R543G	c.1627	WD 5	0.456319897	9.332	1
429	FBXW7	ENST00000603548	p.R505H	c.1514	WD 4	24.91148582	2.758	1
429	FBXW7	ENST00000603548	p.R505L	c.1514	WD 4	24.91148582	2.758	1
429	FBXW7	ENST00000603548	p.R505C	c.1513	WD 4	24.91148582	2.758	9
429	FBXW7	ENST00000603548	p.R505G	c.1513	WD 4	24.91148582	2.758	10
429	FBXW7	ENST00000603548	p.R505S	c.1513	WD 4	24.91148582	2.758	1
429	FBXW7	ENST00000603548	p.R479P	c.1436	WD 3	5.329626149	9.279	1
429	FBXW7	ENST00000603548	p.R479Q	c.1436	WD 3	5.329626149	9.279	5
429	FBXW7	ENST00000603548	p.S476R	c.1428	WD 3	1.073963668	8.976	1
429	FBXW7	ENST00000603548	p.S476I	c.1427	WD 3	1.073963668	8.976	1
429	FBXW7	ENST00000603548	p.R465H	c.1394	WD 3	26.49928975	0	14
429	FBXW7	ENST00000603548	p.R465C	c.1393	WD 3	26.49928975	0	10
429	FBXW7	ENST00000603548	p.G437R	c.1309	WD 2	0.633099627	5.524	1
429	FBXW7	ENST00000603548	p.S426L	c.1277	WD 2	3.807783423	2.87	1
429	FBXW7	ENST00000603548	p.T385K	c.1154	WD 1	0.754925512	5.912	1
458	RNF43	ENST00000584437	p.M173T	c.518	Extracellular. TSP type-1.	0.011748081	0	1
458	RNF43	ENST00000584437	p.H86R	c.257	Extracellular. NULL	0.001051016	9.894	1
458	RNF43	ENST00000584437	p.S85F	c.254	Extracellular. FU 1	0.00323056	8.274	1
458	RNF43	ENST00000584437	p.M83T	c.248	Extracellular. FU 1	0.002470468	8.661	1
458	RNF43	ENST00000584437	p.L82S	c.245	Extracellular. FU 1	0.010339535	7.645	1
500	CASP8	ENST00000358485	p.R307W	c.919	NULL	0.066707834	0	1
500	CASP8	ENST00000358485	p.G387R	c.1159	NULL	0.066707834	3.906	1
516	CASP8	ENST00000358485	p.Y285F	c.854	NULL	0.180215199	6.106	1
516	CASP8	ENST00000358485	p.M287T	c.860	NULL	0.390902667	6.25	1
516	CASP8	ENST00000358485	p.R292W	c.874	NULL	1.374498952	8.013	1
516	CASP8	ENST00000358485	p.R292Q	c.875	NULL	1.374498952	8.013	1

516	CASP8	ENST00000358485	p.C295Y	c.884	NULL	0.20215798	5.167	1
516	CASP8	ENST00000358485	p.TT331in_frame_del	c.987_992	NULL	0.145910601	8.022	1
516	CASP8	ENST00000358485	p.D362G	c.1085	NULL	1.395897091	0	1
516	CASP8	ENST00000358485	p.D362V	c.1085	NULL	1.395897091	0	1
516	CASP8	ENST00000358485	p.D367G	c.1100	NULL	0.809996105	5.429	1
516	CASP8	ENST00000358485	p.S397C	c.1190	NULL	0.324589755	3.191	1
516	CASP8	ENST00000358485	p.P411H	c.1232	NULL	0.725860955	2.749	1
516	CASP8	ENST00000358485	p.K412T	c.1235	NULL	0.144797607	4.681	1
516	CASP8	ENST00000358485	p.P453L	c.1358	NULL	0.111991267	6.901	1
566	GATA3	ENST00000379328	p.G279S	c.835	GATA-type 1.	0.072080427	0	1
566	GATA3	ENST00000379328	p.R313K	c.938	Flexible linker	0.030042171	5.118	1
566	GATA3	ENST00000379328	p.M369I	c.1107	NULL	0.044531086	4.53	1
585	MAP2K4	ENST00000415385	p.R145W	c.433	Protein kinase.	1.04254823	6.634	2
585	MAP2K4	ENST00000415385	p.V148M	c.442	Protein kinase.	0.246758315	3.142	1
585	MAP2K4	ENST00000415385	p.E152K	c.454	Protein kinase.	0.138742895	3.929	1
585	MAP2K4	ENST00000415385	p.G263R	c.787	Protein kinase.	0.055388502	9.719	1
585	MAP2K4	ENST00000415385	p.S268F	c.803	Phosphoserine; by MAP3K	1.200259189	0	2
621	SMAD4	ENST00000342988	p.D355G	c.1064	MH2.	0.695975198	6.069	1
621	SMAD4	ENST00000342988	p.P356L	c.1067	MH2.	0.24808786	8.724	1
621	SMAD4	ENST00000342988	p.RFCLG361in_frame_del	c.1080_1094	MH2.	17.70598522	0	1
621	SMAD4	ENST00000342988	p.R361C	c.1081	MH2.	17.70598522	0	5
621	SMAD4	ENST00000342988	p.R361S	c.1081	MH2.	17.70598522	0	1
621	SMAD4	ENST00000342988	p.R361H	c.1082	MH2.	17.70598522	0	10
621	SMAD4	ENST00000342988	p.R361P	c.1082	MH2.	17.70598522	0	1
621	SMAD4	ENST00000342988	p.D537Y	c.1609	MH2.	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537G	c.1610	MH2.	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537V	c.1610	MH2.	6.20480619	2.538	1
621	SMAD4	ENST00000342988	p.D537E	c.1611	MH2.	6.20480619	2.538	1
685	HNF1A	ENST00000541395	p.M154T	c.461	NULL	0.017938165	5.974	1
685	HNF1A	ENST00000541395	p.R159L	c.476	NULL	0.129567104	2.971	1
685	HNF1A	ENST00000540108	p.P112S	c.334	NULL	0.143447226	0	1
777	MLH1	ENST00000231790	p.L588R	c.1763	Interaction with EXO1	0.008906041	6.811	1
777	MLH1	ENST00000231790	p.L590I	c.1768	Interaction with EXO1	0.078237279	3.676	1
777	MLH1	ENST00000231790	p.L658I	c.1972	NULL	0.08714332	0	1
814	SMAD2	ENST00000402690	p.G421W	c.1261	MH2.	0.104206094	3.375	1
814	SMAD2	ENST00000402690	p.R415I	c.1244	MH2.	0.08892659	3.624	1
814	SMAD2	ENST00000402690	p.F356C	c.1067	MH2.	0.17749685	0	1
926	CDH1	ENST00000261769	p.ENEKGP165in_frame_del	c.488_505	Cadherin 1.	0.324553195	3.01	1
926	CDH1	ENST00000261769	p.R222G	c.664	Cadherin 1. NULL	0.518085003	2.485	1
926	CDH1	ENST00000261769	p.D254Y	c.760	Cadherin 1.	0.519039217	0	1
926	CDH1	ENST00000261769	p.D290G	c.869	Cadherin 2.	0.237021993	3.44	1
926	CDH1	ENST00000261769	p.D291N	c.871	Cadherin 2.	0.244089459	3.01	1
1070	MSH6	ENST00000234420	p.D422G	c.1265	NULL	0.017349044	5.849	1
1070	MSH6	ENST00000234420	p.L423I	c.1267	NULL	0.04993988	4.658	1
1070	MSH6	ENST00000234420	p.V480L	c.1438	NULL	0.064283585	0	1
1070	MSH6	ENST00000234420	p.K519N	c.1557	NULL	0.007324774	7.093	1
1111	MEN1	ENST00000443283	p.G424D	c.1271	NULL	0.013267129	6.236	1
1111	MEN1	ENST00000443283	p.D348N	c.1042_1041	Interaction with FANCD2	0.013267129	0	1
1169	MEN1	ENST00000443283	p.E363G	c.1088	Interaction with FANCD2	1.010033717	0	1
1169	MEN1	ENST00000443283	p.E363K	c.1087	Interaction with FANCD2	1.010033717	0	1
1169	MEN1	ENST00000443283	p.H179Y	c.535	NULL	0.020067435	6.639	1
1272	MSH2	ENST00000233146	p.R383L	c.1148	NULL	0.097253817	9.505	1
1272	MSH2	ENST00000233146	p.R406Q	c.1217	NULL	0.028459599	7.239	1

1272	MSH2	ENST00000233146	p.G410S	c.1228	NULL	0.097407287	5.779	1
1272	MSH2	ENST00000233146	p.N412H	c.1234	NULL	0.116793944	3.124	1
1272	MSH2	ENST00000233146	p.Q451E	c.1351	NULL	0.140912641	0	1
1336	SETD2	ENST00000409792	p.W1640C	c.4920	SET.	1.425932463	0	1
1336	SETD2	ENST00000409792	p.W1640R	c.4918	SET.	1.425932463	0	1
1336	SETD2	ENST00000409792	p.N1541S	c.4622	AWS.	1.290947196	3.341	2
1336	SETD2	ENST00000409792	p.E1528D	c.4584	AWS.	0.176901906	3.728	1
1336	SETD2	ENST00000409792	p.R1523H	c.4568	AWS.	1.166719732	3.769	1
1336	SETD2	ENST00000409792	p.R1523C	c.4567	AWS.	1.166719732	3.769	1
1336	SETD2	ENST00000409792	p.C1516F	c.4547	AWS.	0.254478412	7.291	1
1351	SMAD4	ENST00000342988	p.A406T	c.1216	MH2.	0.129772903	0	1
1351	SMAD4	ENST00000342988	p.K428T	c.1283	N6-acetylysine NULL	0.092514407	3.492	1
1351	SMAD4	ENST00000342988	p.S504R	c.1512	MH2.	0.044527634	4.612	1
1467	RB1	ENST00000267163	p.K94N	c.282	NULL	0.015061403	6.053	1
1467	RB1	ENST00000267163	p.L134V	c.400	NULL	0.015061403	0	1
1522	SMAD2	ENST00000402690	p.D450N	c.1348	MH2.	0.196389294	5.785	1
1522	SMAD2	ENST00000402690	p.L446V	c.1336	MH2.	0.188058299	4.107	1
1522	SMAD2	ENST00000402690	p.L442V	c.1324	MH2.	0.083316781	5.906	1
1522	SMAD2	ENST00000402690	p.P305L	c.914	MH2. SAD	1.095334637	0	1
1522	SMAD2	ENST00000402690	p.P305Q	c.914	MH2. SAD	1.095334637	0	1
1522	SMAD2	ENST00000402690	p.D304G	c.911	MH2. SAD	0.166215063	8.65	1
1596	EP300	ENST00000263253	p.R1737C	c.5209	Binding region for E1A adenovirus	0.016827912	0	1
1596	EP300	ENST00000263253	p.K1760R	c.5279	Binding region for E1A adenovirus NULL	0.016827912	5.893	1
1599	RB1	ENST00000267163	p.V654L	c.1960	Domain B	1.013926726	0	1
1599	RB1	ENST00000267163	p.V654M	c.1960	Domain B	1.013926726	0	1
1599	RB1	ENST00000267163	p.M695V	c.2083	Domain B	0.0388409	6.166	1
1607	PIK3R1	ENST00000396611	p.P625R	c.1874	NULL	0.015282393	8.521	1
1607	PIK3R1	ENST00000396611	p.G635A	c.1904	SH2 2.	0.210055176	9.186	1
1607	PIK3R1	ENST00000396611	p.E643K	c.1927	SH2 2.	0.012508168	6.604	1
1607	PIK3R1	ENST00000396611	p.R650P	c.1949	SH2 2.	0.012284767	6.63	1
1607	PIK3R1	ENST00000396611	p.F654S	c.1961	SH2 2.	0.235496942	2.206	1
1607	PIK3R1	ENST00000396611	p.R657W	c.1969	SH2 2.	0.218365166	6.923	1
1607	PIK3R1	ENST00000396611	p.V726A	c.2177	SH2 2.	0.249790906	0	1
1698	PAX5	ENST00000358127	p.H62Q	c.186	Paired.	1.029708097	0	1
1698	PAX5	ENST00000358127	p.H62N	c.184	Paired.	1.029708097	0	1
1698	PAX5	ENST00000358127	p.L23P	c.68	Paired.	0.059416194	5.073	1
1707	MSH6	ENST00000234420	p.M868T	c.2603	NULL	1.008875229	0	1
1707	MSH6	ENST00000234420	p.M868I	c.2604	NULL	1.008875229	0	1
1707	MSH6	ENST00000234420	p.S1049F	c.3146	NULL	0.017750457	6.816	1
1773	CDKN2A	ENST00000498124	p.G150S	c.448	NULL	0.112111102	0	1
1773	CDKN2A	ENST00000361570	p.G166R	c.496	ANK 4	0.112111102	3.157	1
1818	CDH1	ENST00000261769	p.P260H	c.779	Cadherin 1.	0.053144827	4.381	1
1818	CDH1	ENST00000261769	p.E261K	c.781	Cadherin 1.	0.112471436	3.22	1
1818	CDH1	ENST00000261769	p.A286V	c.857	Cadherin 2.	0.15531475	0	1
2050	SMARCA4	ENST00000358026	p.K1493N	c.4479	NULL	0.260100157	0	1
2050	SMARCA4	ENST00000358026	p.R1552H	c.4655	Bromo.	0.168820083	2.714	1
2050	SMARCA4	ENST00000358026	p.D1600N	c.4798	NULL	0.124106466	3.215	1
2098	PHF6	ENST00000394292	p.G214V	c.641	Extended PHD2 domain (ePHD2)	0.040695131	4.619	1
2098	PHF6	ENST00000394292	p.C243Y	c.728	Extended PHD2 domain (ePHD2)	0.009284243	6.751	1
2098	PHF6	ENST00000394292	p.G288V	c.863	Extended PHD2 domain (ePHD2)	0.049979374	0	1
2115	NPM1	ENST00000517671	p.P216S	c.646	NULL	0.004903406	0	1
2115	NPM1	ENST00000517671	p.K257E	c.769	N6-acetylysine	0.004903406	7.672	1
2117	NF1	ENST00000358273	p.A928V	c.2783	NULL	0.016153605	5.952	1

2117	NF1	ENST00000358273	p.P931L	c.2792	NULL	0.017145812	5.866	1
2117	NF1	ENST00000358273	p.K1040N	c.3120	NULL	0.033299417	0	1
2135	MSH6	ENST00000234420	p.K99N	c.297	PWWP.	0.007823338	0	1
2135	MSH6	ENST00000234420	p.R128H	c.383	PWWP.	0.007823338	6.998	1
2298	MSH6	ENST00000234420	p.S950I	c.2849	NULL	0.008332701	0	1
2298	MSH6	ENST00000234420	p.R976H	c.2927	NULL	0.008332701	6.907	1
2301	SETD2	ENST00000409792	p.Y1666H	c.4996	SET.	0.596684188	2.889	1
2301	SETD2	ENST00000409792	p.D1665V	c.4994	SET.	0.348411053	3.179	1
2301	SETD2	ENST00000409792	p.F1650S	c.4949	SET.	1.177831968	9.268	1
2301	SETD2	ENST00000409792	p.F1650V	c.4948	SET.	1.177831968	9.268	1
2301	SETD2	ENST00000409792	p.H1629Y	c.4885	S-adenosyl-L-methionine binding	2.269144569	0	3
2301	SETD2	ENST00000409792	p.M1627R	c.4880	SET.	0.380307784	5.609	1
2390	NOTCH1	ENST00000277541	p.S1951N	c.5852	HIF1AN-binding.	0.094015412	0	1
2390	NOTCH1	ENST00000277541	p.N1922S	c.5765	Cytoplasmic.	0.020717389	5.697	1
2390	NOTCH1	ENST00000277541	p.L1920P	c.5759	Cytoplasmic.	0.076179452	3.742	1
2434	PAX5	ENST00000358127	p.P130S	c.388	Paired.	0.003215796	0	1
2434	PAX5	ENST00000358127	p.E97D	c.291	Paired.	0.001411065	9.469	1
2434	PAX5	ENST00000358127	p.P93Q	c.279_278	Paired.	0.001804732	9.114	1
2517	FBXW7	ENST00000603548	p.R689Q	c.2066	NULL	4.039757703	0	1
2517	FBXW7	ENST00000603548	p.R689W	c.2065	NULL	4.039757703	0	4
2517	FBXW7	ENST00000603548	p.G669V	c.2006	NULL	0.055166593	9.149	1
2517	FBXW7	ENST00000603548	p.D642G	c.1925	WD 7	0.236340355	4.718	1
2652	MAP2K4	ENST00000415385	p.D107V	c.320	NULL	0.008099227	6.948	1
2652	MAP2K4	ENST00000415385	p.P134Q	c.401	Protein kinase.	0.008099227	0	1
2730	NPM1	ENST00000517671	p.D55N	c.163	Interaction between pentamers	0.003966274	0	1
2730	NPM1	ENST00000517671	p.S106L	c.317	Necessary for interaction with APEX1	0.003966274	7.978	1
2849	PTEN	ENST00000371953	p.F215S	c.644	C2 tensin-type.	0.082412101	4.601	1
2849	PTEN	ENST00000371953	p.V255in_frame_del	c.762_764	C2 tensin-type.	1.04120605	0	1
2849	PTEN	ENST00000371953	p.V255G	c.764	C2 tensin-type.	1.04120605	0	1
2879	KDM6A	ENST00000382899	p.N1158S	c.3473	JmjC.	0.158219574	2.66	1
2879	KDM6A	ENST00000382899	p.R1262W	c.3784	JmjC.	0.158219574	0	1
2931	RB1	ENST00000267163	p.M379L	c.1135	Domain A	0.054695593	6.384	1
2931	RB1	ENST00000267163	p.Y659F	c.1976	Domain B	0.107430937	0	1
2931	RB1	ENST00000267163	p.I782M	c.2346	Domain C; mediates interaction with E4F1	0.096600311	3.389	1
2975	NF2	ENST00000338641	p.Y221C	c.662	FERM.	0.00626704	0	1
2975	NF2	ENST00000338641	p.D245G	c.734	FERM.	0.00626704	7.318	1
3031	NOTCH1	ENST00000277541	p.C449Y	c.1346	NULL	0.040971118	5.458	1
3031	NOTCH1	ENST00000277541	p.R448L	c.1343	EGF-like 11; calcium-binding	0.149524449	2.774	1
3031	NOTCH1	ENST00000277541	p.P422S	c.1264	EGF-like 11; calcium-binding	0.168948295	0	1
3196	B2M	ENST00000544417	p.L15F	c.43	NULL	0.082640913	3.597	1
3196	B2M	ENST00000544417	p.Y98C	c.293	Glycolipid Ig-like C1-type	0.082640913	0	1
3202	CASP8	ENST00000358485	p.G421E	c.1262	NULL	0.124653906	3.004	1
3202	CASP8	ENST00000358485	p.V469A	c.1406	Interaction with caspase-8 NULL	0.124653906	0	1
3265	NOTCH1	ENST00000277541	p.2439in_frame_insG	c.7314_7313	EGF-like 11; calcium-binding	0.008887541	0	1
3265	NOTCH1	ENST00000277541	p.C416F	c.1247	NULL	0.008887541	6.814	1
3350	PBRM1	ENST00000296302	p.M731K	c.2192	Bromo 5.	0.04972103	4.33	1
3350	PBRM1	ENST00000296302	p.I709T	c.2126	Bromo 5.	0.04972103	0	1
3405	EP300	ENST00000263253	p.R1076C	c.3226	Bromo.	0.018607138	5.748	1
3405	EP300	ENST00000263253	p.T1101I	c.3302	Bromo.	0.018607138	0	1
3417	PIK3R1	ENST00000396611	p.G376R	c.1126	C2 PI3K-type. SH2 1.	7.072293011	0	8
3417	PIK3R1	ENST00000396611	p.452in_frame_insY	c.1353_1354	C2 PI3K-type. SH2 1.	0.578344092	3.79	1
3435	CDKN2A	ENST00000361570	p.GAAGR157in_frame_del	c.479_465	ANK 3	0.045310839	4.464	1
3435	CDKN2A	ENST00000361570	p.L127V	c.379	ANK 2	0.045310839	0	1

3444	NOTCH1	ENST00000277541	p.A1705V	c.5114	Extracellular.	0.123218133	0	1
3444	NOTCH1	ENST00000277541	p.W1487C	c.4461	LNR 1	0.091408926	3.501	1
3444	NOTCH1	ENST00000277541	p.N1484I	c.4451	LNR 1	0.037972854	4.841	1
3711	NF2	ENST00000338641	p.IKDTV68in_frame_del	c.202_219	FERM.	0.065880714	3.924	1
3711	NF2	ENST00000338641	p.R291C	c.871	FERM.	0.065880714	0	1
3712	RB1	ENST00000267163	p.N290H	c.868	NULL	0.082469244	0	1
3712	RB1	ENST00000267163	p.E440K	c.1318	Domain A	0.082469244	3.6	1
3808	APC	ENST00000457016	p.W593L	c.1778	Leu-rich NULL	0.023003545	5.442	1
3808	APC	ENST00000457016	p.R640W	c.1918	Leu-rich	0.023003545	0	1
3867	MAP2K4	ENST00000415385	p.R298H	c.893	Protein kinase.	1.073106968	0	2
3867	MAP2K4	ENST00000415385	p.V301F	c.901	Protein kinase.	0.112380123	7.257	1
3867	MAP2K4	ENST00000415385	p.P367S	c.1099	Protein kinase.	0.242503871	3.909	1
4038	CREBBP	ENST00000262367	p.D1143H	c.3427	Interaction with histone	0.329191731	1.603	1
4038	CREBBP	ENST00000262367	p.R1091C	c.3271	NULL	0.329191731	0	1
4095	APC	ENST00000457016	p.S568N	c.1703	Leu-rich	0.008949359	0	1
4095	APC	ENST00000457016	p.D605N	c.1813	Leu-rich	0.008949359	6.804	1
4106	NF2	ENST00000338641	p.C133Y	c.398	FERM.	0.007134361	0	1
4106	NF2	ENST00000338641	p.P246L	c.737	FERM.	0.007134361	7.131	1
4113	FBXW7	ENST00000603548	p.R658Q	c.1973	WD 7	1.184795304	0	2
4113	FBXW7	ENST00000603548	p.G368E	c.1103	NULL	0.369590608	2.436	1
4133	PBRM1	ENST00000296302	p.F280V	c.838	NULL	0.569795433	0	1
4133	PBRM1	ENST00000296302	p.I252R	c.755	Bromo 2.	0.312956424	2.154	1
4133	PBRM1	ENST00000296302	p.I245F	c.733	Bromo 2.	0.389772408	1.761	1
4133	PBRM1	ENST00000296302	p.K231R	c.692	Bromo 2.	0.013834508	8.622	1
4133	PBRM1	ENST00000296302	p.A192T	c.574	NULL	0.065145859	4.544	1
4133	PBRM1	ENST00000296302	p.E184D	c.552	NULL	0.021493195	7.746	1
4261	NOTCH1	ENST00000277541	p.P2064L	c.6191	ANK 5 NULL	1.109196612	0	2
4261	NOTCH1	ENST00000277541	p.A2036V	c.6107	ANK 4 NULL	0.218393224	3.195	1
4364	MSH6	ENST00000234420	p.E956D	c.2868	NULL	0.029076552	0	1
4364	MSH6	ENST00000234420	p.L979V	c.2935	NULL	0.029076552	5.104	1
4368	SMAD4	ENST00000342988	p.A327V	c.980	MH2.	0.067358322	3.892	1
4368	SMAD4	ENST00000342988	p.W524C	c.1572	MH2.	0.067358322	0	1
4384	RB1	ENST00000267163	p.S127I	c.380	NULL	0.009631659	0	1
4384	RB1	ENST00000267163	p.M148T	c.443	NULL	0.009631659	6.698	1
4632	NPM1	ENST00000517671	p.K32E	c.94	N6-acetyllysine	0.007726335	0	1
4632	NPM1	ENST00000517671	p.V99A	c.296	Necessary for interaction with APEX1	0.007726335	7.016	1
4657	NF1	ENST00000358273	p.K1568R	c.4703	NULL	0.01594226	0	1
4657	NF1	ENST00000358273	p.G1668V	c.5003	Lipid binding	0.01594226	5.971	1
4850	MAP2K4	ENST00000415385	p.S195L	c.584	Protein kinase.	1.016676958	6.906	2
4850	MAP2K4	ENST00000415385	p.L396V	c.1186	DVD domain	1.016676958	0	1
4850	MAP2K4	ENST00000415385	p.L396P	c.1187	DVD domain	1.016676958	0	1
4862	NF1	ENST00000358273	p.Q1617H	c.4851	Lipid binding	0.027814867	6.168	1
4862	NF1	ENST00000358273	p.D1837N	c.5509	Lipid binding	1.013907433	0	2
4994	NOTCH1	ENST00000277541	p.G484V	c.1451	EGF-like 12; calcium-binding	0.056289124	4.151	1
4994	NOTCH1	ENST00000277541	p.C461Y	c.1382	NULL	0.056289124	0	1
5002	SETD2	ENST00000409792	p.H1603R	c.4808	S-adenosyl-L-methionine binding	0.199990032	3.322	1
5002	SETD2	ENST00000409792	p.K1560N	c.4680	S-adenosyl-L-methionine binding	1.099995016	0	1
5002	SETD2	ENST00000409792	p.K1560R	c.4679	S-adenosyl-L-methionine binding	1.099995016	0	1
5122	RB1	ENST00000267163	p.A488V	c.1463	Domain A	0.008644511	6.854	1
5122	RB1	ENST00000267163	p.L550I	c.1648	Domain A	0.008644511	0	1
5359	SETD2	ENST00000409792	p.D2007Y	c.6019	NULL	0.03742121	0	1
5359	SETD2	ENST00000409792	p.P1979L	c.5936	NULL	0.03742121	4.74	1
5462	MEN1	ENST00000443283	p.A442D	c.1325	NULL	0.008206598	0	1

5462	MEN1	ENST00000443283	p.E413Q	c.1237	NULL	0.008206598	6.929	1
5549	MSH6	ENST00000234420	p.E1254in_frame_del	c.3759_3761	NULL	0.13221887	0	1
5549	MSH6	ENST00000234420	p.R1331Q	c.3992	NULL	0.13221887	2.919	1
5597	PHF6	ENST00000394292	p.C293S	c.878	Extended PHD2 domain (ePHD2)	0.009868182	6.663	1
5597	PHF6	ENST00000394292	p.K300N	c.900	Extended PHD2 domain (ePHD2)	0.097328086	3.361	1
5597	PHF6	ENST00000394292	p.N329Y	c.985	Extended PHD2 domain (ePHD2)	0.107196268	0	1
5678	ARID1B	ENST00000367148	p.K1099N	c.3297	NULL	0.051724801	0	1
5678	ARID1B	ENST00000367148	p.L1130V	c.3388	ARID.	0.051724801	4.273	1

Supplementary Table 9. Intra-molecular clusters with at least 50% specificity to one cancer type

Cluster with Centroid	Cancer Type	Specificity
VHL:L89	KIRC	0.95
DNMT3A:R882	LAML	0.91304348
MTOR:C1483	KIRC	0.85714286
FLT3:D835	LAML	0.84210526
EGFR:A289	GBM	0.80392157
IDH1:R132	LGG	0.71666667
IDH2:R140	LAML	0.7037037
PIK3CA:H1047	BRCA	0.68965517
EGFR:L858	LUAD	0.68
MAP2K1:P124	SKCM	0.66666667
PTEN:R130	UCEC	0.63809524
BRAF:V600	THCA	0.58899676
PPP2R1A:P179	UCEC	0.57142857
C6:R145	SKCM	0.57142857
PIK3CA:R88	UCEC	0.54054054
RAC1:P29	SKCM	0.52631579
RUNX1:R162	LAML	0.5
MTOR:F1888	UCEC	0.5

Supplementary Table 10. Inter-molecular clusters with at least 50% specificity to one cancer type

Inter-Molecular Cluster	Cancer Type	Specificity
ASB9,SOCS4,TCEB1,VHL	KIRC	0.8
PLXNB1,RAC1	SKCM	0.76923077
BTRC,CTNNB1	UCEC	0.70588235
H2AFY,SPOP	PRAD	0.6
AKAP13,ARHGEF12,RHOA	HNSC	0.57142857
PPP2R1A,PPP2R2A	UCEC	0.53846154
NR1I3,PPARG	UCEC	0.5
CBFB,RUNX1	BRCA	0.5

Supplementary Table 11. Experimental validation for predicted functional rare driver mutations

Rare mutations found in intra-molecular clusters				
Gene in Cluster	Centroid	Rare Mutation	Evidence of Functionality	Citation
IDH1	R132	R109	Mutation leads to reorganization of active site, leads to loss of enzymatic function for oxidative decarboxylation of isocitrate, and gain of function for NADPH-dependent reduction of α -ketoglutarate. 3T3 (recombinant retroviruses with mutants in mouse 3T3 fibroblasts) cells were injected into the shoulder of nu/nu mice. At 3 weeks after the injection, the R47Q mutant but not wild-type MAP2K1, generated palpable tumors at every injection site. Additionally, R47Q led to increased phosphorylation of downstream kinases ERK1/2, supporting the activating potential of the mutation	http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3194054/
MAP2K1	P124	R47Q	Mutations strongly increase phosphorylation of all signaling proteins in 3 different cell lines, indicating that these are activating mutation. NIH3T3-HER2 D769H-mutant cell lines had more rapid tumor growth than the HER2 WT control.	http://carcin.oxfordjournals.org/content/33/5/956.long
ERBB2	V842	D769H, D769Y		http://cancerdiscovery.aacrjournals.org/content/early/2012/12/04/2159-8290.CD-12-0349.abstract
Rare/medium recurrent mutations found in inter-molecular clusters				
Genes in Cluster	Hotspots	Rare Mutation	Evidence of Functionality	Citation
KEAP1/NFE2L2	NFE2L2: E79,E82	KEAP1:R415C/H, R483C/H	Both mutations are located in the KEAP1 binding pocket and play a major role in the stability of the KEAP1/NFE2L2 complex.	http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1538563/
VHL/TCEB1	VHL: L158	Y79F/N/S	Experimentally validated to disrupt complex	http://www.ncbi.nlm.nih.gov/pubmed/23797736
SMAD2/SMAD3/SMAD4	NA	SMAD2: P305L/Q, D300N, SMAD3: R268C/H	Destabilize SMAD2/4 and SMAD3/4 complexes	http://www.ncbi.nlm.nih.gov/pubmed/23139211
SMAD2/SMAD3/SMAD4	SMAD4: R361	SMAD2: D450N, S276L	Destabilize SMAD complexes	http://www.ncbi.nlm.nih.gov/pubmed/23139211
DNMT3A/DNMT3L	NA	DNMT3L: F261L	Mutation at this residue causes the complex to lose its ability to form a homodimer and its ability to stimulate wild-type Dnmt3a2 activity.	http://www.nature.com/nature/journal/v449/n7159/full/nature06146.html
Rare mutations found in drug-mutation clusters				
Gene in Cluster	Rare Mutation	Predicted Drug	Known Drug	Database Source
ERBB3	G284R	NAG molecule	trastuzumab,pertuzumab,lapatinib,anti-HER3 mAbs, PI3K pathway inhibitors + MEK inhibitors	SAGE
BRAF	D594G	Sorafenib	Sorafenib	SAGE
BRAF	G469A	Sorafenib	EGFR TKIs + MEK inhibitors + anti-EGFR mAbs	cancerDR, SAGE
EGFR	G719A	Gefitinib	MEK inhibitors, afatinib+cetuximab, erlotinib, afatinib, HSP90 inhibitors	MyCancerGenome, SAGE
EGFR	G719D	Gefitinib	MEK inhibitors, afatinib+cetuximab, erlotinib, afatinib, HSP90 inhibitors	SAGE
PRKCI	D396E	adenosine	Bryostatins	cancerDR

Supplementary Table 13. Inter-molecular clusters with hotspot residues and potential novel functional mutations

Cluster ID	Proteins in Cluster	Protein	Transcript (Ensembl74)	Hotspot Residues	Novel Functional Mutations
89	KEAF1,NFE2L2	KEAF1	ENST00000039623	NA	p.G332S,p.R45C,p.R45H,p.G477S,p.R483C,p.R483H,p.G509W,p.G524C,p.G527F,p.G603W
89	KEAF1,NFE2L2	NFE2L2	ENST00000039702	E79,E82	p.D77G,p.T80K,p.T80P,p.T80R
35	PLXNB1,RAC1	PLXNB1	ENST00000296440	NA	p.D1736N
35	PLXNB1,RAC1	RAC1	ENST00000350142	P29	NA
0	ASB9,SOCS4,TCEB1,VHL	ASB9	ENST00000080488	NA	p.S257P
0	ASB9,SOCS4,TCEB1,VHL	SOCS4	ENST00000395472	NA	p.R383W
0	ASB9,SOCS4,TCEB1,VHL	TCEB1	ENST00000522337	NA	p.S67L,p.Y79F,p.Y79N,p.Y79S,p.R82C,p.S86G
0	ASB9,SOCS4,TCEB1,VHL	VHL	ENST00000256714	L158	p.G114R,p.L153P,p.C162F,p.C162K,p.C162Y,p.V165D,p.S168C,p.L169P
438	MAX,MYC	MAX	ENST00000358664	R60	NA
438	MAX,MYC	MYC	ENST00000377970	NA	p.E384K
87	SMAD2,SMAD3,SMAD4	SMAD2	ENST00000402690	NA	p.S276L,p.L442V,p.L446V,p.D450N
87	SMAD2,SMAD3,SMAD4	SMAD3	ENST00000377507	NA	p.Q405L
87	SMAD2,SMAD3,SMAD4	SMAD4	ENST00000342988	R361	p.D355G,p.P356L,p.S357P
20	PIK3CA,PIK3R1	PIK3CA	ENST00000263967	V344,N345,D350,C420,E453	p.R412Q,p.PVPHGLEDEL447n frame del.p.P449L,p.HGLEDLNLP450n frame del.p.G451R,p.G451V,p.D454Y,p.P471A,p.P471L
20	PIK3CA,PIK3R1	PIK3R1	ENST00000395611	NSKPS6AT,K367,R574	p.SRSTQ460n frame del.p.D464N,p.D464V,p.DRL1464n frame del.p.RL1465n frame del.p.EIDK558n frame del.p.I559Y,p.I559V,p.D560Q,p.D560K,p.MNS63n frame del.p.MNSKPOL563n frame del.p.P568T,p.LUQLKTRD570n frame del.p.IQLKTR571n frame del.p.Q572R,p.KT575n frame del.p.KT575n frame del.p.KTROQV575n frame del
109	PPP2R1A,PPP2R2A	PPP2R1A	ENST00000312088	R258	p.R221W,p.S256F,p.S256Y,p.W257C,p.R260C
109	PPP2R1A,PPP2R2A	PPP2R2A	ENST00000315985	NA	p.M266I
216	GRB14,HRAS,RASA1,SOS1	GRB14	ENST00000263915	NA	p.H147Y
216	GRB14,HRAS,RASA1,SOS1	HRAS	ENST00000311889	G12,G13,Q61	p.A310,p.D33N
216	GRB14,HRAS,RASA1,SOS1	RASA1	ENST00000274376	NA	p.R789L,p.R789Q,p.N942H
216	GRB14,HRAS,RASA1,SOS1	SOS1	ENST00000426016	NA	p.E966Q
232	BTIRC,CTNNB1	BTIRC	ENST00000370187	NA	p.R322Q
232	BTIRC,CTNNB1	CTNNB1	ENST00000349496	D32	p.L31M
10	NR113,PPARG,RXRA	NR113	ENST00000367980	NA	p.D291N,p.R329W
10	NR113,PPARG,RXRA	PPARG	ENST00000287820	NA	p.E352K,p.T468A
10	NR113,PPARG,RXRA	RXRA	ENST00000481739	S427	p.R421H,p.R426H,p.G429V
66	PIK3CA,PIK3R1	PIK3CA	ENST00000263967	E542,E545,Q546	p.G364R,p.E365K,p.E365V,p.P366R,p.E547D,p.E547K,p.D1029H
66	PIK3CA,PIK3R1	PIK3R1	ENST00000395611	G376	p.K379E,p.K379N,p.L380n frame del.p.452n frame insY,p.460n frame insX,p.461n frame insX,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY,p.463n frame insY
19	TP53,TP53BP1,TP53BP2	TP53	ENST00000485888	Y163,S241,C242,G244,G245,R248,R249,P250	p.H168L,p.H168P,p.H168R,p.E171K,p.M246L,p.M246R,p.N247I
19	TP53,TP53BP1,TP53BP2	TP53BP1	ENST00000382044	NA	p.V184K,p.V186M
19	TP53,TP53BP1,TP53BP2	TP53BP2	ENST00000343537	NA	p.D956H
267	AKAP13,ARHGFEF12,RHOA	AKAP13	ENST00000361243	NA	p.R2015H
267	AKAP13,ARHGFEF12,RHOA	ARHGFEF12	ENST00000397843	NA	p.R800I
267	AKAP13,ARHGFEF12,RHOA	RHOA	ENST00000418115	E40	NA

Supplementary Table 14. Intra-molecular clusters with medium recurrent novel functional mutations

Cluster ID	Protein	Transcript (Ensembl74)	Novel Functional Mutations
1229	CA3	ENST00000285381	p.L95F,p.G98C,p.F159L,p.R226L,p.R226Q,p.R226W
102	PTPN11	ENST00000351677	p.V428M,p.I463L,p.T468M,p.Q510H,p.Q510L
299	RUNX1	ENST00000300305	p.P113L,p.P113S,p.V118A,p.A134P,p.D160G,p.L161P,p.R162G,p.R162K,p.R162S
2772	MTOR	ENST00000361445	p.A1459P,p.L1460P,p.C1483F,p.C1483R,p.C1483Y
5272	PI3	ENST00000243924	p.R82W,p.A84P,p.A84T,p.A84V,p.C109Y

Supplementary Table 15. Inter-molecular clusters with medium recurrent novel functional mutations

Cluster ID	Proteins in Cluster	Protein	Transcript (Ensembl74)	Novel Functional Mutations
55	DOCK2,RAC1,VAV1	DOCK2	ENST00000256935	p.L1531P,p.G1533E,p.I1534S,p.V1539F
55	DOCK2,RAC1,VAV1	RAC1	ENST00000356142	p.G155S,p.C18F,p.C18Y,p.N39S,p.Y40S,p.Q61R
55	DOCK2,RAC1,VAV1	VAV1	ENST00000602142	p.M330I
73	CUL1,GLMN,RBX1	CUL1	ENST00000602748	p.E499D,p.R506H,p.R506S,p.D510G,p.G543R,p.G543W,p.R577Q,p.E758D,p.E758Q
73	CUL1,GLMN,RBX1	GLMN	ENST00000370360	p.P376S
73	CUL1,GLMN,RBX1	RBX1	ENST00000216225	p.M50I,p.M50V,p.A61V,p.T90I
385	DNMT3A,DNMT3L	DNMT3A	ENST00000321117	p.R720H,p.R729Q,p.R729W
385	DNMT3A,DNMT3L	DNMT3L	ENST00000270172	p.F261L
272	SMAD2,SMAD3,SMAD4	SMAD2	ENST00000402690	p.D300N,p.D304G,p.P305L,p.P305Q
272	SMAD2,SMAD3,SMAD4	SMAD3	ENST00000327367	p.R268C,p.R268H
272	SMAD2,SMAD3,SMAD4	SMAD4	ENST00000342988	p.R531Q,p.L533R,p.D537E,p.D537G,p.D537V,p.D537Y
81	IL21,IL21R	IL21	ENST00000264497	p.D33Y,p.R34C,p.R34S,p.R40H,p.R40S
81	IL21,IL21R	IL21R	ENST00000395755	p.Q211R
2	HIST1H2AE,HIST1H2BA,HIST1H2BJ	HIST1H2AE	ENST00000303910	p.A22T,p.A22V,p.A53V
2	HIST1H2AE,HIST1H2BA,HIST1H2BJ	HIST1H2BA	ENST00000274764	p.T117A,p.TKAVTKYTS117in_frame_del
2	HIST1H2AE,HIST1H2BA,HIST1H2BJ	HIST1H2BJ	ENST00000541790	p.K121E
278	CBFB,RUNX1	CBFB	ENST00000412916	p.R83L
278	CBFB,RUNX1	RUNX1	ENST00000300305	p.D198G,p.D198N
387	H2AFY,SPOP	H2AFY	ENST00000510038	p.T175I
387	H2AFY,SPOP	SPOP	ENST00000393331	p.Y87S,p.W131C,p.W131G,p.W131R
34	LY96,TLR4	LY96	ENST00000284818	p.R90C,p.K125Q
34	LY96,TLR4	TLR4	ENST00000355622	p.S415I,p.F418L,p.L419F,p.E439A,p.E439K,p.F440L

Supplementary Table 16. Singletons In RBX1/CUL1/GLMN cluster

Cluster ID	Protein	Transcript (Ensembl74)	HGVS Protein Annotation	Closeness Centrality	Geodesic from Centroid	No. of Patient Samples
73	RBX1	ENST00000216225	p.A61V	0.164865791	9.099	1
73	CUL1	ENST00000602748	p.D510G	0.013223596	7.416	1
73	CUL1	ENST00000602748	p.E499D	0.032101341	14.335	1
73	GLMN	ENST00000370360	p.P376S	0.020723168	11.43	1
73	CUL1	ENST00000602748	p.R577Q	0.020063756	6.936	1
73	RBX1	ENST00000216225	p.T90I	0.182281806	18.769	1

Supplementary Table 17. Quantitative image analysis of intensities from western blots

	pEGFR #1 (5.5intensity)	Relative Intensity	EGFR #1 (8.5intensity)	Relative Intensity	pEGFR/EGFR	
EGF +/-						
WT-	1	1058.82	1	3500.841	0.302447326	WT
WT+	2	4376.134	2	2761.598	1.584638314	
L858R-	3	2343.77	3	2214.477	1.058385343	L858R
L858R+	4	4035.184	4	1960.355	2.058394525	
L833F-	5	1510.648	5	1901.77	0.794337906	L833F
L833F+	6	3349.77	6	2069.719	1.618466082	
R831H-	7	4252.891	7	7027.669	0.605163817	R831H
R831H+	8	5985.861	8	4457.79	1.342786672	
	pEGFR #2 (5.5intensity)		EGFR #2 (8.5intensity)			
T790M-	1	5803.82	1	5233.134	1.109052434	T790M
T790M+	2	4943.305	2	1131.577	4.368509611	
I789M-	3	1685.062	3	3468.113	0.485872865	I789M
I789M+	4	5697.912	4	4644.355	1.226846785	
D761N-	5	1808.184	5	1792.698	1.008638376	D761N
D761N+	6	5005.598	6	2756.477	1.81594042	
G719A-	7	2707.548	7	2798.255	0.967584441	G719A
G719A+	8	2476.012	8	721.163	3.433359726	

0.483	2	2	CTS1, acetic	ENST00000340342	p.R318W,p.R319I	Cathepsins
0.487	2	2	CLTC, acetic	ENST00000269122	p.L622I,p.S249N	Unclassified
0.492	2	2	CD30, n-acetyl-d-glucosamine	ENST00000194871	p.R92G,p.T42K	C1-set domain containing; CD molecules
0.494	3	3	AZU1, ethanol	ENST00000233997	p.P35S,p.S93F,p.G247R	Unclassified
0.494	3	3	NR1L2, rifampin	ENST00000373940	p.M362V,p.M222T	Nuclear hormone receptors
0.493	3	3	ICHE, domesepil, galantamine	ENST00000115182	p.I305V,p.H187A,p.G137R	Blood group antigens
0.426	3	3	DPEP1, cistatatin	ENST00000246145	p.A213T,p.V308A,p.H124Y	Unclassified
0.423	1	1	PHK2, acetic	ENST00000106149	p.I103M	Protein Kinase; Protein phosphatase 1 regulatory subunits
0.419	2	2	CZAL, acetic	ENST00000112932	p.H179M,p.R180K	Unclassified
0.416	2	2	F2, acetic	ENST00000119007	p.G499R,p.L492V	Endogenous ligands
0.415	2	2	CPIH4A1, bicucullatamide; clemastine	ENST00000201485	p.A111V,p.R226S	Cytochrome P450s
0.408	2	2	BR04, dimethyl	ENST00000301377	p.R413W,p.S125G	Protein Kinase
0.401	2	2	TR7, adenosine	ENST00000369798	p.G514I,p.G046F	Protein Kinase
0.399	3	3	MAPP11; nilotinib	ENST00000153961	p.R149W,p.V234M,p.H1167M	Mitogen-activated protein kinases; Protein Kinase
0.395	2	2	MMF13; acetyhydroxamic	ENST00000402073	p.L222Q,p.P242R	Endogenous ligands; Matrix metalloproteinases
0.394	2	2	DCX, acyclovir; cladribine; cidofovir; cytarabine; entricitabine	ENST00000504952	p.A138E,p.L136V	Unclassified
0.393	2	2	ETK, ibuprofen	ENST00000309731	p.L529F,p.T554C,ENST00000372880,p.K60I	Fibronectin hemolytic domain containing; Protein Kinase; SH2 domain containing
0.39	4	4	FKHG2; sunitinib	ENST00000417775	p.V50M,p.M260I	Protein Kinase
0.39	2	2	CRV2, acetic	ENST00000328273	p.R39L,p.E114K,p.E157K,p.A51T	Unclassified
0.387	2	2	ESG2, cotinadil	ENST00000410999	p.R220Q,p.G472S	Nuclear hormone receptors
0.382	2	2	ACVZ8; adenine	ENST00000352511	p.V358M,p.A266T	Protein Kinase; Type II receptor serine/threonine kinases
0.373	3	3	NEDD4, guanidine	ENST00000508342	p.F973I,p.W846F,p.W885S	Unclassified
0.371	1	1	GLR3; glutathione	ENST00000378258	p.S52R	Unclassified
0.365	1	1	TYM5; pemterexed; ralitrexed	ENST00000323274	p.F80L	Unclassified
0.362	2	2	PUS1; lysine	ENST00000376649	p.A143T,p.R144Q	Unclassified
0.361	2	2	FNTA, acetic	ENST00000302279	p.W195C,p.Q203M	Fibronectin alpha subunit repeat containing
0.36	2	2	CYP2R1; cholecalciferol; ergocalciferol	ENST00000346346	p.M118L,p.A17T	Cytochrome P450s
0.346	2	2	PC, pyruvic	ENST00000393960	p.R644W,p.S576A	Unclassified
0.334	1	1	VWS, acetic	ENST00000321405	p.R192W	Endogenous ligands
0.33	1	1	ACTR8, adenosine	ENST00000335754	p.S55L	WDR6 complex subunits
0.33	1	1	MAPP3; adenine	ENST00000307102	p.R96K	Mitogen-activated protein kinase kinases; Protein Kinase
0.328	3	3	NUS2, acetic	ENST00000222665	p.R204W	Endogenous ligands
0.322	3	3	FKBP5; dimethyl	ENST00000364338	p.A95V,p.P477,p.V278C	Tetratricopeptide repeat domain containing
0.32	3	3	NAMPP; diazoxide	ENST00000292661	p.L282V,p.L197E	Unclassified
0.32	2	2	AME1, acetic	ENST00000225613	p.D192V,p.H193L,p.S275Y	CD molecules
0.318	3	3	PKC1; acetic	ENST00000194441	p.G237E,p.D311M,p.F333L	Unclassified
0.317	2	2	FCN1; n-acetyl-d-glucosamine	ENST00000371806	p.D282N,p.F274L	Fibronectin C domain containing
0.308	1	1	ACR20; adenosine	ENST00000325616	p.R634K	ATP-binding cassette, sub-family B (MDR/TFAR)
0.307	2	2	PPPSK2; adenosine	ENST00000414217	p.G474E,p.G527K	Unclassified
0.307	2	2	LAMP3; n-acetyl-d-glucosamine	ENST00000265598	p.S279F,p.Q280I	CD molecules
0.307	2	2	AB; imatinib	ENST00000376775	p.F616R,p.G757R	CD molecules; Protein Kinase; Receptor Tyrosine Kinases
0.306	2	2	AB; bicucullatamide	ENST00000374690	p.E889D,p.R787Q	Nuclear hormone receptors
0.306	2	2	SGIGT7; n-acetyl-d-glucosamine	ENST00000176443	p.L987Q,p.P895E	CD molecules; immunoglobulin-like domain containing; Sialic acid binding to lectin like; V-set domain containing
0.305	2	2	NTRY2; acetic	ENST00000130341	p.R392C,p.A130T	Unclassified
0.304	2	2	CA14; acetazolamide	ENST00000369111	p.E152Q,p.S215I	Carbolic anhydrazides
0.3	2	2	FKRFB; acetic	ENST00000340253	p.A997F,p.R113V	Unclassified
0.298	1	1	SNRP200; adenosine	ENST00000121863	p.G140R,p.H1437K,p.G1333R	Unclassified
0.298	1	1	PKMT; adenine; s-adenosylmethionine	ENST00000269582	p.A181V	Unclassified
0.294	1	1	FOLU3; folic; pemterexed	ENST00000229223	p.F78V	Unclassified
0.291	2	2	FHML; adenosine	ENST00000371909	p.L80P,p.K311M,frame_del	Unclassified
0.292	2	2	ALDH1A1; acetic	ENST00000444455	p.L437V,p.R211M	Aldehyde dehydrogenases
0.29	2	2	TYT; acetic	ENST00000342829	p.R456C	Unclassified
0.29	1	1	NTX2; adenosine	ENST00000335616	p.S412V,p.R326H	RNAi-ago-based protein phosphatases
0.289	1	1	CSNK2A1; dimethyl	ENST00000349736	p.V196C	Protein Kinase
0.289	1	1	NKXN1; nilutinib	ENST00000283429	p.T248H	Short chain dehydrogenase/reductase superfamily
0.285	1	1	ACD1; acetic	ENST00000379923	p.R713L	Unclassified
0.281	2	2	CPB2; glycine	ENST00000181383	p.W218R,p.P366A	Unclassified
0.277	3	3	GABRR1; baclofen	ENST00000404977	p.S351M,p.R552E,ENST00000377034,p.Q623K	GABA aminohydroxylic acid (GABA) B receptors
0.276	2	2	PNAGE2; adenosine	ENST00000304625	p.V155F,p.W37R	Schizontoxins; Phase A
0.276	1	1	GALNT10; n-acetyl-d-glucosamine	ENST00000297107	p.R86C	Polypeptide N-acetylglucosaminyltransferases
0.275	2	2	FBRN1; acetic	ENST00000296802	p.S348L,p.H345P	Protein Kinase
0.272	3	3	HRK2; pexadinib	ENST00000220751	p.A373R,p.R37A,p.N151K	Protein Kinase
0.272	2	2	CDK2; adenosine	ENST00000553376	p.K347,p.G130	Cyclin dependent kinases; Protein Kinase
0.272	2	2	SETD3; s-adenosylmethionine	ENST00000331768	p.S249F,p.H170V	Unclassified
0.27	1	1	HLHL2; acetic	ENST00000485533	p.R350C	Unclassified
0.27	1	1	DOT1L; s-adenosylmethionine	ENST00000398665	p.G137R	TYB (POZ) domain containing; Kelch-like
0.269	2	2	ACSL1; pantamidine	ENST00000338133	p.T863K,p.D180N,p.H197A,p.V374D	Lysine (K) specific methyltransferases
0.268	2	2	MAPP3K7; adenosine	ENST00000369329	p.G45V,p.V90A	Unclassified
0.267	1	1	ACSM2A; buggerfen	ENST00000375690	p.R472Q	Mitogen-activated protein kinase kinases; Protein Kinase
0.266	1	1	RET; adenosine	ENST00000355710	p.A793R,p.S891L	Acyl CoA synthetase family
0.263	1	1	NPC1; n-acetyl-d-glucosamine	ENST00000269228	p.A267T	Calnexin-related; Protein Kinase; Receptor Tyrosine Kinases
0.261	2	2	AGO2; 1-tryptophan	ENST00000220592	p.P590L,p.T657M	Unclassified
0.26	2	2	CPAA; n-acetyl-d-glucosamine	ENST00000222482	p.A282F,p.Q173N	Unclassified
0.258	5	4	NFASC; n-acetyl-d-glucosamine	ENST00000361772	p.R492C,p.R515C,p.G238L,p.E154K	Fibronectin type III domain containing; I-set domain containing
0.253	2	2	HNMT; amodiaquine	ENST00000280097	p.V147C,p.L285V	Unclassified
0.252	2	2	PTPNS; acetic	ENST00000371621	p.L215F,p.H258R	Protein Kinase; Receptor Tyrosine Kinases
0.251	2	2	EGFR; afatinib	ENST00000275493	p.L807H,p.S811C	Protein Kinase
0.248	3	3	FLA267; acetic	ENST00000373665	p.L265G,p.D262V,p.R264M	Phospholipases
0.246	1	1	SNRP200; sulfanilamide	ENST00000238853	p.H1230N	Unclassified
0.245	2	2	CHAT; choline	ENST00000337653	p.L446N,p.S656Y	Unclassified
0.244	1	1	GGG2; dimethyl	ENST00000325418	p.L669R	Protein Kinase
0.243	1	1	ABCC1; adenosine	ENST00000309408	p.G683E	ATP-binding cassette, sub-family C (CFTR/MRP)
0.233	2	2	ALB; phenylbutazone	ENST00000295897	p.S313F,p.D282E	Unclassified
0.232	2	2	FCN2; n-acetyl-d-glucosamine	ENST00000291744	p.D194F,p.R192L	Fibronectin C domain containing
0.229	1	1	HADG3; venicostat	ENST00000439122	p.R141V	X-linked mental retardation
0.225	1	1	TR7; dimethyl	ENST00000237014	p.R41R	Unclassified
0.224	3	3	NUZ2; zaranolin	ENST00000233840	p.F87L,p.E355K,p.R41W	Unclassified
0.221	2	2	NADH1; reaginine; nicosamide	ENST00000378669	p.F368L,p.S200G	Unclassified
0.22	3	3	PGK1; adenosine	ENST00000306108	p.V277L	Unclassified
0.22	1	1	YMTF1B; s-adenosylmethionine	ENST00000439947	p.V277R	Unclassified
0.213	2	2	ACRY10; acetic	ENST00000367615	p.V127M,p.A95V	Adenylyl cyclases
0.209	1	1	CCBL1; l-phenylalanine	ENST00000432627	p.W112R	Unclassified
0.209	1	1	ACPP; n-acetyl-d-glucosamine	ENST00000315273	p.R91N	Unclassified
0.208	4	4	SRR9046; hydrocortisone	ENST00000367651	p.G27R	Serine (or cysteine) peptidase inhibitors
0.208	1	1	ADCY10; dimethyl	ENST00000341584	p.S394R,p.R282A,p.T284M,p.A290T	Adenylyl cyclases
0.207	1	1	UG4; adenosine	ENST00000400525	p.L427D	Unclassified
0.205	1	1	FHR5; acetic	ENST00000338488	p.R247Q	Lysine (K) specific demethylases; PHD finger proteins
0.204	1	1	ASH1; s-adenosylmethionine	ENST00000368346	p.G17N,p.L2277R	Lysine (K) specific methyltransferases; PHD finger proteins
0.204	1	1	PKR; riboflavin	ENST00000367636	p.D122V	Unclassified
0.203	2	2	MAZ; adenosine	ENST00000339011	p.F555C,p.I579P	SH2 domain containing
0.203	1	1	THRA; levothyrosine	ENST00000264637	p.E339Q	Nuclear hormone receptors
0.402	1	1	GLC2L1; acetic	ENST00000392256	p.R153P	Mitogen-activated protein kinase kinases; Protein Kinase
0.2	2	2	GLA; rash	ENST00000374497	p.R184C,p.G1139A,p.F93L	Short chain dehydrogenase/reductase superfamily
0.2	2	2	PKLX; adenosine	ENST00000241436	p.N130D,p.D109N	Polymerases, DNA-directed
0.196	1	1	PTPNS; acetic	ENST00000274889	p.G603R	Fibronectin type III domain containing; Protein tyrosine phosphatases, receptor type
0.195	2	2	CP2A; nicotine	ENST00000301141	p.L442Q,p.V300I	Cytochrome P450s
0.194	1	1	LDH8; rash	ENST00000396076	p.A252T	Unclassified
0.194	1	1	ULC; acetic	ENST00000346769	p.H676R	Unclassified
0.193	1	1	OTYW4; adenosine	ENST00000307984	p.R143L	Unclassified
0.19	1	1	HDC1; acetic	ENST00000373548	p.H177R	Unclassified
0.189	2	2	CPCL1; n-acetyl-d-glucosamine	ENST00000420138	p.A157V,p.A180R	Glypicans
0.189	2	2	CPCL1; glutathione	ENST00000395892	p.L76V,p.G63R	Chloride intracellular channels
0.185	2	2	ILBP3; glutathione	ENST00000293379	p.P56L	Unclassified
0.185	1	1	FHGA; n-acetyl-d-glucosamine	ENST00000367499	p.H262C,p.D197G	CD molecules; integrins
0.18	1	1	SMYD2; s-adenosylmethionine	ENST00000466657	p.L206F	Lysine (K) specific methyltransferases; Zinc fingers, MNF-type
0.18	1	1	TCN1; cyanocobalamin	ENST00000257264	p.E94Q	Unclassified
0.176	1	1	JKK2; acetic	ENST00000339801	p.W738C	SH2 domain containing

0.175	1	1	CTS1, n-acetyl-d-glucosamine	ENSTD0000372484	p.E166Q	Cathepsins
0.172	2	2	SDTB, s-adenosylmethionine	ENSTD0000394079	p.E289Q,p.H947Q	Lysine (K) specific methyltransferases
0.171	3	3	TRF6, adenosine	ENSTD0000311740	p.V121E,p.T231L,p.P160Q	Arkyrin repeat domain containing; Transient receptor potential cation channels
0.169	1	1	LDHA, nadh	ENSTD0000504030	p.I281T	Unclassified
0.166	2	2	SULT1A1, estradiol	ENSTD0000509554	p.V243L,p.T135	Sulfotransferases, cytosolic
0.164	2	2	TRPK1, adenosine	ENSTD0000424085	p.Q387R,p.L388F	Protein Kinase
0.161	2	2	GSS, glutathione	ENSTD0000420653	p.A149E	Unclassified
0.161	1	1	MCL1, acetic	ENSTD0000216951	p.A46L,p.DD19H	Protein phosphatase 1 regulatory subunits
0.154	1	1	MLH1, adenosine	ENSTD0000231790	p.Q65W	Unclassified
0.153	1	1	RBP2, vitamin	ENSTD0000232217	p.I287	Fatty acid binding protein family
0.152	1	1	GMBR2, n-acetyl-d-glucosamine	ENSTD0000293685	p.D631N	Gamma-aminobutyric acid (GABA) B receptors
0.151	1	1	MULT1, acetic	ENSTD0000515680	p.M388T	Unclassified
0.147	2	2	UPL1, fluorouracil	ENSTD0000241052	p.R127Q	Unclassified
0.146	2	2	CAT, acetic	ENSTD0000313883	p.G144R,p.R273C	Unclassified
0.146	2	2	SRK1, adenosine	ENSTD0000381962	p.A101T,p.F777	Unclassified
0.144	3	3	MGM1, mightail	ENSTD0000549489	p.R384H,p.V534F,p.G627E	Unclassified
0.143	2	2	EPWC2, tubestomat	ENSTD0000507071	p.I378T	Unclassified
0.143	1	1	SI008, acetic	ENSTD0000521400	p.V498M,p.L417S	H4F-hand domain containing; S100 calcium binding proteins
0.141	1	1	TDPI, sperminal	ENSTD0000393454	p.M90A	Unclassified
0.139	1	1	CK1A, dimethyl	ENSTD0000399566	p.S229F	Unclassified
0.137	1	1	SQCF, acetic	ENSTD0000523483	p.V158F	Unclassified
0.133	1	1	NAGA, n-acetyl-d-glucosamine	ENSTD0000396398	p.F199L	Unclassified
0.132	1	1	BRD2, dimethyl	ENSTD0000607833	p.V435I	Protein Kinase
0.131	1	1	GGC1, acetic	ENSTD0000275428	p.G23C	Unclassified
0.129	1	1	METAP1, acetic	ENSTD0000296411	p.H301V	Unclassified
0.127	3	3	GARS, adenosine	ENSTD000019810	p.V579K,p.G307L,p.R513C	Aminoacyl tRNA synthetases, Class II
0.125	3	3	CAMK2A, bosutinib	ENSTD0000398376	p.I17K,p.S25L,p.D90N	Protein Kinase
0.124	1	1	SRPPNG1, n-acetyl-d-glucosamine	ENSTD0000403558	p.R277W	Serine (or cysteine) peptidase inhibitors
0.123	1	1	SDPN, n-acetyl-d-glucosamine	ENSTD0000205948	p.S161I	Aspogonins
0.117	1	1	BMX, dasatinib	ENSTD0000357607	p.G424E	Pleckstrin homology domain containing; Protein Kinase; SH2 domain containing
0.113	1	1	FTF1, adenosine	ENSTD0000460541	p.P119L	Unclassified
0.113	1	1	MTR7A, acetic	ENSTD0000491774	p.S116D	CD molecule; Protein Kinase; Receptor Tyrosine Kinases
0.113	1	1	LGALS3BP, n-acetyl-d-glucosamine	ENSTD0000267776	p.R63W	BTB (POZ) domain containing; Endogenous ligands
0.107	2	2	EP30, dimethyl	ENSTD0000225174	p.R193K	Kylisnel acetyltransferases
0.107	1	1	EPF, dimethyl	ENSTD0000533576	p.Q133H	Unclassified
0.106	2	2	ERBB3, bosutinib	ENSTD0000287101	p.G1221D,p.L1792V	Cyclin-dependent kinases; Protein Kinase
0.106	1	1	ERK1, levothyronine	ENSTD0000396066	p.G347E	Protein Kinase; Receptor Tyrosine Kinases
0.105	2	2	NR3C2, progesterone; spironolactone	ENSTD0000359015	p.P901L	Nuclear hormone receptors
0.105	1	1	MARCKS, acetic	ENSTD000015528	p.Y832C,p.C205F	Nucleoside diphosphate kinase
0.105	1	1	CA, ticlopidine	ENSTD0000309600	p.R213I	Nuclear hormone receptors
0.105	1	1	CA13, acetazolamide	ENSTD0000321764	p.S131N	Nuclear hormone receptors
0.105	1	1	ZADH, fenpropfen	ENSTD0000232342	p.S282L	Mitogen-activated protein kinase kinase kinases; Protein Kinase
0.104	1	1	FRCD2, n-acetyl-d-glucosamine	ENSTD0000333189	p.Q118F	Carbonic anhydrases
0.103	1	1	APCS, acetic	ENSTD0000255040	p.H97Q	Unclassified
0.097	1	1	CANT1, acetic	ENSTD0000302345	p.S303T	Unclassified
0.096	2	2	MAD6, acetic	ENSTD0000445478	p.E183R,p.E187R	Unclassified
0.09	2	2	LTA4H, acetic	ENSTD0000228740	p.L364R,p.S486A	Unclassified
0.089	3	3	FAP, n-acetyl-d-glucosamine	ENSTD0000188790	p.V47R,p.S57R,p.A55N	Unclassified
0.088	3	3	TSG18, velturostat	ENSTD0000231341	p.S441G	Phosphodiesterases
0.088	2	2	MI2, nadh	ENSTD0000333229	p.I420S	Unclassified
0.088	1	1	BRW1, acetic	ENSTD0000344828	p.J712V	WD repeat domain containing
0.088	1	1	MAL3, imordasone	ENSTD0000451517	p.R381R,p.Y652E,p.K445Q	Immunoglobulin-like domain containing
0.086	2	2	IL12B, n-acetyl-d-glucosamine	ENSTD0000231228	p.E25D,p.L26F	Immunoglobulin-like domain containing; Interleukins
0.086	1	1	GLRX, glutathione	ENSTD0000397440	p.T78C	Unclassified
0.084	1	1	PKTX, acetic	ENSTD0000398620	p.N102D	Unclassified
0.082	1	1	ERAP2, n-acetyl-d-glucosamine	ENSTD0000437043	p.R225Q	Aminoacyltransferases
0.081	2	2	FRD8, rabofene	ENSTD0000309195	p.D687R,p.A241V	Unclassified
0.081	1	1	GLG4, acetic	ENSTD0000399510	p.G388D	Unclassified
0.08	2	2	GSTP1, glutathione	ENSTD0000398606	p.L63M,p.T88S	Glutathione S-transferases
0.079	2	2	Smyd3, s-adenosylmethionine	ENSTD0000388885	p.S207P,p.S182F	Lysine (K) specific methyltransferases; Zinc fingers; MYND-type
0.078	1	1	PREP, acetic	ENSTD0000399110	p.R643C	Unclassified
0.076	2	2	ANK1, ethanol	ENSTD0000300093	p.V98A	Arkyrin repeat domain containing
0.076	1	1	FKL1, acetic	ENSTD0000396842	p.S97V,p.G93D	Protein Kinase
0.075	1	1	FTZD, adenosine	ENSTD0000519419	p.G607Y	Protein Kinase; Protein phosphatase 1 regulatory subunits
0.075	1	1	WAPAL, acetic	ENSTD0000298767	p.R731C	Unclassified
0.075	1	1	MTAP, adenosine	ENSTD0000508900	p.V177G,p.S178N	Unclassified
0.071	1	1	HCN4, acetic	ENSTD0000261917	p.E695K	Cyclic nucleotide-gated channels
0.07	1	1	PPP3K2, acetic	ENSTD0000414217	p.R677M	Unclassified
0.067	1	1	EPH4, succinic	ENSTD0000263655	p.R617I	Protein Disulfide Isomerase
0.065	1	1	BMF7, n-acetyl-d-glucosamine	ENSTD0000395863	p.G429Q	Bone morphogenetic protein; Endogenous ligands
0.064	1	1	FRCD1, n-acetyl-d-glucosamine	ENSTD0000448616	p.E139K	Fibrinogen C domain containing
0.063	1	1	PMR2, glycine	ENSTD0000262861	p.H819Y,p.frame_del	H4F-hand domain containing; Protein phosphatase 1 regulatory subunits
0.062	1	1	EFNB2, n-acetyl-d-glucosamine	ENSTD0000245123	p.S40A	Ephrins
0.059	1	1	HAT1, acetic	ENSTD0000264108	p.E205Q	Kylisnel acetyltransferases
0.059	1	1	HOM4, guanidine	ENSTD0000397382	p.S98T	Unclassified
0.058	2	2	TLR4, n-acetyl-d-glucosamine	ENSTD0000355622	p.T151Y,p.E169A	CD molecule; Helicins
0.058	1	1	STS, n-acetyl-d-glucosamine	ENSTD0000217961	p.G599R	Sulfatases
0.056	2	2	PLN1C1, n-acetyl-d-glucosamine	ENSTD0000256526	p.S523G,p.S278L	CD molecule; Helicins
0.056	1	1	CALM3, trifluoperazine	ENSTD0000291295	p.M145I	EF-hand domain containing; Endogenous ligands
0.055	2	2	CYP2A6, methococain	ENSTD0000301141	p.T293M,p.V188M	Cytochrome P450s
0.053	1	1	SBRK, n-acetyl-d-glucosamine	ENSTD0000400568	p.N115D	C2-set domain containing; CD molecule; Signal-regulatory proteins; V-set domain containing
0.053	1	1	TEK, n-acetyl-d-glucosamine	ENSTD0000380036	p.V139M	Pleckstrin homology domain containing; Immunoglobulin-like domain containing; Protein Kinase; Receptor Tyrosine Kinases
0.051	1	1	BTX, dimethyl	ENSTD0000308711	p.R544M	Unclassified
0.05	1	1	SRTB, s-adenosylmethionine	ENSTD0000193515	p.M294T	Pleckstrin homology domain containing; Protein Kinase; SH2 domain containing
0.048	3	3	CYP2B6, amiodopine	ENSTD0000214071	p.T303L,p.F42L,p.M56I	Cytochrome P450s
0.047	1	1	CTS1, n-acetyl-d-glucosamine	ENSTD0000340342	p.G195D	Cathepsins
0.047	1	1	RNF28, n-acetyl-d-glucosamine	ENSTD0000515499	p.Q401G	Ring finger proteins
0.047	1	1	SRF2, acetic	ENSTD0000249396	p.F231L	Unclassified
0.047	1	1	CDN3, acetic	ENSTD0000265734	p.R168G	Cyclin-dependent kinases; Protein Kinase
0.046	1	1	AMPK, acetyldroscaramic	ENSTD0000216826	p.P172S	Matrix metalloproteinases
0.046	1	1	PDXK, adenosine	ENSTD0000291565	p.V229R	Unclassified
0.045	2	2	MEP1B, n-acetyl-d-glucosamine	ENSTD0000269202	p.P72L,p.R70G	Ataxins
0.045	1	1	TABL1, n-acetyl-d-glucosamine	ENSTD0000161610	p.F951Q	Unclassified
0.044	1	1	ASS1, l-citrulline	ENSTD0000372394	p.S278T	Unclassified
0.043	1	1	DHFR, folic	ENSTD0000505537	p.L139I	Unclassified
0.043	1	1	CDAT1, carntoine	ENSTD0000180800	p.F624E	Unclassified
0.041	2	2	CA12, acetazolamide	ENSTD0000237014	p.G131E	Carbonic anhydrases
0.041	1	1	TR, furiprotein	ENSTD0000178658	p.F576M,p.M150T	Unclassified
0.039	1	1	MTR1, dimethyl	ENSTD0000293529	p.T124R	Unclassified
0.039	1	1	MAPP2K2, adenosine	ENSTD0000262948	p.G83S	Mitogen-activated protein kinase kinases; Protein Kinase
0.039	1	1	ITGA8B, n-acetyl-d-glucosamine	ENSTD0000262407	p.P45H	CD molecule; Integrins; Protein phosphatase 1 regulatory subunits
0.038	1	1	ESR6, pyrrolmethione	ENSTD0000261416	p.R670Q	Unclassified
0.038	1	1	TSR8, n-acetyl-d-glucosamine	ENSTD0000298171	p.T54M	Glycoprotein hormone receptors
0.038	1	1	TRIC120, acetic	ENSTD0000461304	p.L278M	Unclassified
0.037	1	1	ERD2, acetaminophen	ENSTD0000078113	p.D160N	Protein Kinase
0.037	1	1	PDE10A, pappaverine	ENSTD0000398649	p.P750S	Phosphodiesterases
0.035	1	1	TRIP14, n-acetyl-d-glucosamine	ENSTD0000509959	p.S103C	CD molecule; Tumor necrosis factor (ligand) superfamily
0.034	1	1	GRIN4, n-acetyl-d-glucosamine	ENSTD0000315225	p.L197D	CD molecule
0.034	1	1	GAK, succinic	ENSTD0000314167	p.C190F	CD molecule
0.033	1	1	ADAM22, n-acetyl-d-glucosamine	ENSTD0000260577	p.S353L	C2-zeatin type domain containing; DNAX (HSP40) heat shock proteins; Protein Kinase
0.033	1	1	AGL1, n-acetyl-d-glucosamine	ENSTD0000254958	p.V192C	ADAM metalloproteinase domain containing
0.031	1	1	NUDT2, adenosine	ENSTD0000379158	p.A27	CD molecule
0.032	1	1	FDFT2, n-acetyl-d-glucosamine	ENSTD0000394845	p.V290I	Nudix type motif-containing
0.031	1	1	H4CR, nadh	ENSTD0000403312	p.S157G	Fucosyltransferases
0.031	1	1	MAPP14, dimethyl	ENSTD0000229795	p.RVAVKKA9N,p.frame_del	Unclassified
0.03	1	1	AKR1C2, acetic	ENSTD0000380753	p.M161V	Mitogen-activated protein kinases; Protein Kinase
						Allo-iso reductases

0.029	1	1	CD55; acetic	ENST00000367063	p.P2185	Blood group antigens; CD molecules
0.028	1	1	TPSG2; n-acetyl-d-glucosamine	ENST00000369750	p.V78F	Unclassified
0.028	1	1	ITGAM; n-acetyl-d-glucosamine	ENST00000261023	p.V48N	CD molecules; Integrins
0.027	1	1	PYGM; adenine	ENST00000164139	p.R570W	Phosphorylases, glycogen
0.026	3	3	LZOR1; n-acetyl-d-glucosamine	ENST00000316649	p.V183M,p.H2177,p.R192K	Interleukin receptors
0.025	1	1	CSF3; sulfasalazine	ENST00000398606	p.N202D	Glutathione S-transferases
0.025	1	1	SLC1A2; acetic	ENST0000037892	p.W481C	Solute carriers
0.024	1	1	CTSO; dimethyl	ENST00000368865	p.D211E	Cathepsins
0.024	1	1	ZBTB17; acetic	ENST00000375733	p.A96V	BTB (POZ) domain containing; Zinc fingers, C2H2 type
0.024	1	1	ARRDC3; guanidine	ENST00000265138	p.Y349C	Unclassified
0.023	1	1	ITNA1; n-acetyl-d-glucosamine	ENST00000289361	p.V118I	Butyrophilins; C2-set domain containing; CD molecules; V-set domain containing
0.022	1	1	TOP2B; epiposide	ENST00000344311	p.S823N	Unclassified
0.022	1	1	PTK2; chloropyrimine	ENST0000019419	p.Q1063H	Protein Kinase; Protein phosphatase 1 regulatory subunits
0.022	1	1	TNFRSF10B; n-acetyl-d-glucosamine	ENST00000376411	p.R115H	CD molecules; Tumor necrosis factor receptor superfamily
0.022	1	1	ITPK; n-acetyl-d-glucosamine	ENST00000246818	p.S27A	Unclassified
0.022	1	1	BRCA1; acetic	ENST00000471181	p.V1686L	Protein phosphatase 1 regulatory subunits; Ring finger proteins
0.02	1	1	ST1A; n-acetyl-d-glucosamine	ENST00000278742	p.P299R	Proteases, serine
0.02	1	1	SPH4; sitagliptin	ENST00000360534	p.Y585H	CD molecules
0.02	1	1	KDM4D; acetic	ENST00000336741	p.P260S	Lysine (K) specific demethylases
0.02	1	1	KLGN4V; n-acetyl-d-glucosamine	ENST00000381093	p.Q105E	Unclassified
0.019	1	1	CTLA4; n-acetyl-d-glucosamine	ENST00000302823	p.G199R	CD molecules; V-set domain containing
0.018	1	1	GALNS; n-acetyl-d-glucosamine	ENST00000268695	p.F194C	Sulfatases
0.018	1	1	TPP2; n-acetyl-d-glucosamine	ENST00000299427	p.A555S	Unclassified
0.018	1	1	CD47; n-acetyl-d-glucosamine	ENST00000361309	p.I127V	CD molecules; Immunoglobulin-like domain containing
0.018	1	1	NTSE; adenosine	ENST00000257770	p.R441H	CD molecules
0.017	2	2	CD1; n-acetyl-d-glucosamine	ENST00000375820	p.S164E	Complement system
0.017	1	1	CDL4A1; acetic	ENST00000394635	p.M540,p.E288X	Collagens
0.016	1	1	PKP4; dimethyl	ENST00000010008	p.T391I	Tetrapeptide repeat domain containing
0.016	1	1	AKR1C2; isidomethacin	ENST00000380753	p.R304Q	Aldo keto reductases
0.016	1	1	FECH; salicylic	ENST00000382873	p.A288T	Unclassified
0.016	1	1	GDNF; n-acetyl-d-glucosamine	ENST00000427982	p.V144I	Endogenous ligands
0.015	1	1	PTPRC3; acetic	ENST00000265562	p.L428I	Protein tyrosine phosphatases, non-receptor type
0.014	1	1	CSF2RB; n-acetyl-d-glucosamine	ENST00000406230	p.L177F	CD molecules; Fibronectin type III domain containing
0.014	1	1	CYP3A4; dimethyl	ENST00000336411	p.K476E	Cytochrome P450s
0.014	1	1	IL13L1; n-acetyl-d-glucosamine	ENST00000339564	p.Q479V	I-set domain containing; Immunoglobulin-like domain containing; Interleukin receptors
0.013	1	1	ITGA4; n-acetyl-d-glucosamine	ENST00000397033	p.F112Q	CD molecules; Integrins
0.013	1	1	CS3; acetic	ENST00000398168	p.V119M	Unclassified
0.013	1	1	GSTA3; glutathione	ENST00000311122	p.I05V	Glutathione S-transferases
0.011	1	1	IL6R; l-cysteine	ENST00000368485	p.G299R	CD molecules; Immunoglobulin-like domain containing; Interleukin receptors
0.01	1	1	LRRRC4C; n-acetyl-d-glucosamine	ENST0000028697	p.N331S	I-set domain containing
0.009	1	1	ITPK; n-acetyl-d-glucosamine	ENST0000030566	p.S103S	Unclassified
0.009	1	1	TYRO3; acetic	ENST00000263798	p.G210D	Fibronectin type III domain containing; I-set domain containing; Immunoglobulin-like domain containing; Protein Kinase; Receptor Tyrosine Kinases
0.008	1	1	LIPF; n-acetyl-d-glucosamine	ENST00000394375	p.E57K	Lipases
0.002	1	1	URE2D1; acetic	ENST00000373910	p.R303N	Ubiquitin-conjugating enzymes E2

DrugBank Classifications

Antineoplastic Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Unclassified
Unclassified
Anti-menopausal Agents; Antihypocalemic Agents; Bone Density Conservation Agents; Carcinogens; Contraceptive Agents; Estrogen Antagonists; Estrogens; Estrogens, Non-Steroidal; Selective Estrogen Receptor Modulators; Unclassified
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Antihypocalcemic Agents; Antireceptors; Bisphosphonates; Bone Density Conservation Agents; Calcium Channel Blockers
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Anticonvulsants; Carbonic Anhydrase Inhibitors; Diuretics; Sodium Potassium Chloride Symporter Inhibitors; Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements; Unclassified
Anticholinergic Agents; Hydromethylglutaryl CoA Reductase Inhibitors
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Anxiety Agents; Anticonvulsants; Antismanic Agents; Antiparkinson Agents; Calcium Channel Blockers; Excitatory Amino Acid Antagonists
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Keratolytic Agents; Unclassified
Dietary Supplements; Glycine Agents; Micronutrients; Non-Essential Amino Acids; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Hypolipidemic Agents; Vasodilator Agents; Vitamin B Complex
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Anticonvulsants; Carbonic Anhydrase Inhibitors; Diuretics
Anti-Arhythmia Agents; Anticholinergic Agents; Antineoplastic Agents; Calcium Channel Blockers; Dihydropyridines; Keratolytic Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Protein Kinase Inhibitors; Unclassified
Anti-Inflammatory Agents, Non-Steroidal; Cardiovascular Agents; Cyclooxygenase Inhibitors; Gout Suppressants; Hypoglycemic Agents; Tocolytic Agents; Unclassified
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Phytogetic; Unclassified
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Dietary Supplements; Lipotropic Agents; Micronutrients; Nootropic Agents; Supplements; Unclassified
Dietary Supplements; Micronutrients; Supplements
Abortifacient Agents, Steroidal; Contraceptive Agents; Contraceptive Agents, Female; Contraceptives, Oral, Synthetic; Hormone Antagonists; Luteolytic Agents; Menstruation-Inducing Agents; Progestins
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Antineoplastic Agents; Histone Deacetylase Inhibitors
Unclassified
Unclassified
Antineoplastic Agents; Keratolytic Agents; Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Abortifacient Agents, Steroidal; Anti-Inflammatory Agents; Antiemetics; Antineoplastic Agents, Hormonal; Contraceptives, Oral, Synthetic; Contraceptives, Postcoital, Synthetic; Glucocorticoids; Hormone Antagonists; Luteolytic Agents; Menstruation-Inducing Agents; Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Unclassified
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Anti-Inflammatory Agents, Non-Steroidal; Anti-glaucoma Agents; Cardiovascular Agents; Cyclooxygenase Inhibitors; Gout Suppressants; Tocolytic Agents; Unclassified
Dietary Supplements; Micronutrients; Supplements
Amino Acids, Essential; Analgesics; Anti-Arhythmia Agents; Antidepressive Agents, Second-Generation; Cardiovascular Agents; Dietary Supplements; Micronutrients; Supplements; Vasodilator Agents
Analgesics; Anti-Arhythmia Agents; Antineoplastic Agents; Cardiovascular Agents; Protein Kinase Inhibitors; Unclassified; Vasodilator Agents
Adrenergic α -Agonists; Cardiotonic Agents; Dopamine Agents; Sympathomimetics; Vasconstrictor Agents
Dietary Supplements; Glycine Agents; Micronutrients; Non-Essential Amino Acids; Supplements
Dietary Supplements; Micronutrients; Supplements
Anti-Impotence Agents; Phosphodiesterase 5 Inhibitors; Unclassified; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Anti-HIV Agents; Antimetabolites; Reverse Transcriptase Inhibitors; Unclassified
Anti-Arhythmia Agents; Antiemetics; Antihypertensive Agents; Antipsychotic Agents; Calcium Channel Blockers; Dopamine Antagonists; Phenothiazines; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Antihypocalcemic Agents; Antisepaptic Agents; Antithyroid Agents; Bone Density Conservation Agents; Calcium Channel Agonists; Dermatologic Agents; Vitamin D; Vitamins
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Diuretics; Sodium Potassium Chloride Symporter Inhibitors; Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements; Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Unclassified; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements; Unclassified
Anti-Bacterial Agents; Gastrointestinal Agents; Macrolides; Protein Synthesis Inhibitors
Dietary Supplements; Micronutrients; Supplements
Anti-Inflammatory Agents, Non-Steroidal; Antineoplastic Agents; Carcinogens; Cardiovascular Agents; Cyclooxygenase Inhibitors; Estrogens, Non-Steroidal; Gout Suppressants; Keratolytic Agents; Tocolytic Agents; Unclassified
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Unclassified; Vasodilator Agents
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Anti-Arhythmia Agents; Cardiotonic Agents; Enzyme Inhibitors
Dietary Supplements; Micronutrients; Supplements
Unclassified
Analgesics, Non-Narcotic; Antipyretics; Unclassified
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Analgesics; Anti-Arhythmia Agents; Cardiovascular Agents; Vasodilator Agents

NIH Classifications

Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors; Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Iodine-containing contrast media; Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Androgens; Calcium metabolism regulators
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives); Carbonic anhydrase inhibitors; Diuretics (furosemide type); Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives); Iodine-containing contrast media
Antasthmatics/antiallergics (not acting primarily as antihistamines, leukotriene biosynthesis inhibitors)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Receptor molecules, native or modified; complement receptors
Gabamimetics
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Antihistaminic/antiallergics (not acting primarily as antihistamines, leukotriene biosynthesis inhibitors); Phenylpyridine vasodilators (nifedipine type); Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Benzodiazepine receptor antagonists/agonists; Tyrosine kinase inhibitors
Angiotensin II receptor antagonists; Anti-inflammatory agents (acetic acid derivatives); Antihyperglycemics
Anti-inflammatory contrast media
Antandrogens; Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Iodine-containing contrast media
Progesterone receptor antagonists; Progestins; Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Enzyme inhibitors; Inhibitors of histone deacetylase
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives); Anesthetics; Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anticoagulant (Factor Xa inhibitor); Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Progesterone receptor antagonists; Receptor molecules, native or modified; Unclassified; complement receptors
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Tyrosine kinase inhibitors; Unclassified
Dopamine receptor agonists; Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
PDE5 inhibitors
Iodine-containing contrast media
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives); Positive inotropic agents (pimobendan type)
Unclassified
Iodine-containing contrast media
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Diuretics (furosemide type); Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Anti-inflammatory agents (acetic acid derivatives); Iodine-containing contrast media
Antibiotics (Streptomyces strains)
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Growth factors
Unclassified
Unclassified
Iodine-containing contrast media
Tyrosine kinase inhibitors
Anti-inflammatory agents (acetic acid derivatives); Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Unclassified

Unclassified
Unclassified
Dietary Supplements; Micronutrients; Supplements
Anti-Infective Agents, Local; Central Nervous System Depressants; Solvents
Unclassified
Cholinesterase Inhibitors; Nootropic Agents; Parasympathomimetics; Unclassified
Unclassified
Unclassified
14-alpha Demethylase Inhibitors; Anti-Infective Agents, Local; Antifungal Agents; Unclassified
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Antineoplastic Agents
Unclassified
Antimetabolites, Antineoplastic; Antineoplastic Agents; Antiviral Agents; Immunosuppressive Agents; Purine analogues; Unclassified
Unclassified
Anti-menopausal Agents; Contraceptive Agents; Estrogens
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified
Amino Acids, Essential; Dietary Supplements; Micronutrients; Supplements
Unclassified
Antihypocalcemic Agents; Antithyroid Agents; Bone Density Conservation Agents; Vitamin D; Vitamins
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Unclassified
Sodium Chloride Symporter Inhibitors
Unclassified
Unclassified
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Protein Kinase Inhibitors
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified
Anticonvulsants; Carbonic Anhydrase Inhibitors; Diuretics
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Unclassified
Dietary Supplements; Glycine Agents; Micronutrients; Non-Essential Amino Acids; Supplements
Muscle Relaxants, Skeletal; Neuromuscular Agents
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Second-Generation; Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Unclassified
Anti-Bacterial Agents; Homeopathic Agents; Sulfonamides
Dietary Supplements; Lipotropic Agents; Micronutrients; Nootropic Agents; Supplements
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Antineoplastic Agents; Histone Deacetylase Inhibitors
Unclassified
Antiviral Agents; Enzyme Inhibitors
Anticonvulsants; Anticoagulants; Monoamine Oxidase Inhibitors; Neuroprotective Agents
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Amino Acids, Essential; Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Unclassified
Anti-Bacterial Agents; Homeopathic Agents; Sulfonamides
Dietary Supplements; Lipotropic Agents; Micronutrients; Nootropic Agents; Supplements
Unclassified
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Photosensitizing Agents; Vitamin B Complex
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Unclassified
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Anti-anemic Agents; Vitamin B Complex; Vitamins
Unclassified

Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Antibiotics (flamycin derivatives)
Acetylcholinesterase inhibitors used in the treatment of Alzheimer's disease; Unclassified
Antasthmatics/Antiallergics (not acting primarily as antihistamines, leukotriene biosynthesis inhibitors)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Antidandruff agents (acetic acid derivatives)
Antidandruff agents; Unclassified
Unclassified
Unclassified
Benzotriazine receptor antagonists/agonists
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives); Antineoplastics (arabinfuranosyl derivatives); Nucleoside antiviral or antineoplastic agents, cytarabine or azarabine derivatives; Ribofuranil derivatives (pyrazofurin type)
Tyrosine kinase inhibitors
Tyrosine kinase inhibitors
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Unclassified
Antihypertensives (guanidine derivatives)
Iodine-containing contrast media
Antineoplastic thymidylate synthetase inhibitors
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Ergot alkaloid derivatives; Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors
Antandrogens
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Iodine-containing contrast media; Unclassified
Antineoplastic thymidylate synthetase inhibitors; Phosphoro-derivatives
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors
Unclassified
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Unclassified
Unclassified
Anti-inflammatory/analgesic agents (bupropfen type)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Benzotriazine receptor antagonists/agonists
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Enzyme inhibitors, inhibitors of histone deacetylase
Unclassified
Antiviral substances, neuraminidase inhibitors
MAP inhibitors, type II; Unclassified
Unclassified
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Receptor molecules, native or modified; complement receptors
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Receptor molecules, native or modified; complement receptors
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Receptor molecules, native or modified; complement receptors
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Receptor molecules, native or modified; complement receptors
Anti-inflammatory agents (acetic acid derivatives)

Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Anti-menopausal Agents, Contraceptive Agents, Estrogens
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Antimetabolites, Antimetabolites, Antineoplastic; Immunosuppressive Agents
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Unclassified
Antineoplastic Agents, Antineoplastic Agents, Hormonal; Estrogen Antagonists
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Unclassified
Unclassified
Unclassified
Contraceptive Agents; Diuretics; Mineralocorticoid Receptor Antagonists; Progestins
Unclassified
Unclassified
Anticonvulsants; Carbonic Anhydrase Inhibitors; Diuretics
Anti-inflammatory Agents, Non-Steroidal; Cyclooxygenase Inhibitors; Propionates
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Unclassified
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Antipsychotic Agents; Dopamine Antagonists; Phenothiazines
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Dietary Supplements, Micronutrients, Supplements
Antihypocalcemic Agents; Bone Density Conservation Agents; Estrogen Antagonists; Selective Estrogen Receptor Modulators
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Anti-infective Agents, Local; Central Nervous System Depressants; Solvents
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Unclassified
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Glycine Agents, Micronutrients, Non-Essential Amino Acids, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Antiemetics; Antipsychotic Agents, Dopamine Antagonists; Phenothiazines
Cross-Linking Reagents; Photosensitizing Agents; Pigmenting Agents
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Dietary Supplements, Micronutrients, Supplements
Antirheginal Agents; Antihypertensive Agents, Calcium Channel Blockers; Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Non-Essential Amino Acids, Supplements
Unclassified
Dietary Supplements, Vitamin B Complex
Anticonvulsants; Carbonic Anhydrase Inhibitors; Diuretics
Analgesics, Anti-inflammatory Agents, Non-Steroidal; Cyclooxygenase Inhibitors
Unclassified
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Antimutants; Antiprotocol Agents, Folic Acid Antagonists
Dietary Supplements, Micronutrients, Supplements
Unclassified
Analgesics, Non-Narcotic; Antipyretics
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Unclassified
Dietary Supplements, Micronutrients, Supplements
Dietary Supplements, Micronutrients, Supplements
Analgesics, Anti-Arrhythmia Agents, Cardiovascular Agents, Vasodilator Agents
Dietary Supplements, Micronutrients, Supplements
Unclassified
Unclassified

Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Unclassified
Unclassified
Iodine-containing contrast media
Unclassified
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Antihyperglycemics
Estrogen antagonists
Anti-inflammatory agents (acetic acid derivatives)
Growth factors
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Tyrosine kinase inhibitors
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors
Unclassified
Tyrosine kinase inhibitors
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Tyrosine kinase inhibitors
Unclassified
Anti-inflammatory agents (acetic acid derivatives); Progestins
Anti-inflammatory agents (acetic acid derivatives)
Carbonic anhydrase inhibitors
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory/analgesic agents (ibuprofen type)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Antihistaminic/anticholinergics (not acting primarily as antihistamines, leukotriene biosynthesis inhibitors)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Iodine-containing contrast media
Iodine-containing contrast media
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Iodine-containing contrast media
Phenylpyridine vasodilators (nifedipine type)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Phosphono-derivatives
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory/analgesic agents (ibuprofen type)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)

Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Unclassified
Unclassified
Dietary Supplements; Micronutrients; Supplements
Athletic Agents, Phytochemicals
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Analgesics; Anti-Arrhythmic Agents; Cardiovascular Agents; Vasodilator Agents
Dietary Supplements; Micronutrients; Supplements
Unclassified
Unclassified
Anti-inflammatory Agents, Non-steroidal; Cardiovascular Agents; Cyclooxygenase Inhibitors; Glucocorticoids; Topical Agents
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Dietary Supplements; Micronutrients; Supplements
Unclassified
Dietary Supplements; Micronutrients; Supplements
Unclassified

Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Antihypertensives (guanidine derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Iodine-containing contrast media
Unclassified
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)
Anti-inflammatory agents (acetic acid derivatives)

Supplementary Table 19. HGNC Gene Families found in drug-mutation clusters

Mutations	Percentage of Mutations Belonging to Family	HGNC Gene Families and GO Protein Kinase
515	59.745	Protein Kinase
76	8.817	CD molecules
67	7.773	Receptor Tyrosine Kinases
41	4.756	Nuclear hormone receptors
25	2.9	Fibronectin type III domain containing
24	2.784	Immunoglobulin-like domain containing
23	2.668	Lysine (K)-specific methyltransferases
23	2.668	Cytochrome P450s
22	2.552	Glutathione S-transferases
19	2.204	I-set domain containing
19	2.204	Endogenous ligands
17	1.972	Cyclin-dependent kinases
16	1.856	SH2 domain containing
15	1.74	BTB (POZ) domain containing
13	1.508	Kelch-like
12	1.392	Protein phosphatase 1 regulatory subunits
12	1.392	Carbonic anhydrases
10	1.16	C1-set domain containing
10	1.16	Tetratricopeptide repeat domain containing
10	1.16	ATP-binding cassette, sub-family C (CFTR/MRP)
10	1.16	Phosphodiesterases
10	1.16	Complement system
10	1.16	Integrins
9	1.044	Alcohol dehydrogenases
9	1.044	Chloride channels, ATP-gated CFTR
9	1.044	Ankyrin repeat domain containing
8	0.928	Tumor necrosis factor (ligand) superfamily
8	0.928	Aminoacyl tRNA synthetases, Class II
8	0.928	Fatty acid binding protein family
8	0.928	Protein tyrosine phosphatases, receptor type
8	0.928	Aminoacyl tRNA synthetases, Class I
8	0.928	PHD finger proteins
8	0.928	V-set domain containing
7	0.812	Low density lipoprotein receptors
7	0.812	Serine (or cysteine) peptidase inhibitors
7	0.812	Mitogen-activated protein kinases
6	0.696	Phospholipases
6	0.696	Argonaute/PIWI family
5	0.58	Pleckstrin homology domain containing
5	0.58	Acyl-CoA synthetase family
5	0.58	Cathepsins
5	0.58	G patch domain containing
5	0.58	Heat shock 90kDa proteins
5	0.58	K(lysine) acetyltransferases
5	0.58	Fibrinogen C domain containing

5	0.58	Aldo-keto reductases
5	0.58	Interleukin receptors
4	0.464	EF-hand domain containing
4	0.464	Adhesion G protein-coupled receptors
4	0.464	Aldehyde dehydrogenases
4	0.464	HAD Asp-based protein phosphatases
4	0.464	Blood group antigens
4	0.464	Short chain dehydrogenase/reductase superfamily
4	0.464	Gamma-aminobutyric acid (GABA) B receptors
4	0.464	G protein-coupled receptors, Class B orphans
3	0.348	Transient receptor potential cation channels
3	0.348	Chemokine ligands
3	0.348	Sterile alpha motif (SAM) domain containing
3	0.348	Heat shock 70kDa proteins
3	0.348	Adenylate cyclases
3	0.348	Lipocalins
3	0.348	Ribonucleases, RNase A
3	0.348	C2 domain containing phospholipases
3	0.348	Protein tyrosine phosphatases, non-receptor type
3	0.348	Mitogen-activated protein kinase kinase kinases
3	0.348	Transglutaminases
3	0.348	DEAD box polypeptides
3	0.348	Matrix metallopeptidases
3	0.348	Zinc fingers, MYND-type
2	0.232	Sulfatases
2	0.232	Polymerases, DNA-directed
2	0.232	Astacins
2	0.232	Lysine (K)-specific demethylases
2	0.232	Sulfotransferases, cytosolic
2	0.232	Chloride intracellular channels
2	0.232	Plexins
2	0.232	Type II receptor serine/threonine kinases
2	0.232	Sialic acid binding Ig-like lectins
2	0.232	Prenyltransferase alpha subunit repeat containing
2	0.232	Interleukins
2	0.232	Ring finger proteins
2	0.232	Mitogen-activated protein kinase kinases
2	0.232	Cadherin-related
2	0.232	Glypicans
2	0.232	Aminopeptidases
1	0.116	Collagens
1	0.116	ATP-binding cassette, sub-family B (MDR/TAP)
1	0.116	X-linked mental retardation
1	0.116	Butyrophilins
1	0.116	minor histocompatibility antigens
1	0.116	Signal-regulatory proteins
1	0.116	Apolipoproteins

1	0.116	CDC-like kinases
1	0.116	INO80 complex subunits
1	0.116	ADAM metallopeptidase domain containing
1	0.116	Cyclic nucleotide gated channels
1	0.116	Proteases, serine
1	0.116	Polypeptide N-acetylgalactosaminyltransferases
1	0.116	Lipases
1	0.116	Zinc fingers, C2H2-type
1	0.116	Solute carriers
1	0.116	Ubiquitin-conjugating enzymes E2
1	0.116	DNAJ (HSP40) heat shock proteins
1	0.116	WD repeat domain containing
1	0.116	Ephrins
1	0.116	Bone morphogenetic proteins
1	0.116	Glycoprotein hormone receptors
1	0.116	Phosphorylases, glycogen
1	0.116	Protein disulfide isomerases
1	0.116	S100 calcium binding proteins
1	0.116	Fucosyltransferases
1	0.116	Tumor necrosis factor receptor superfamily
1	0.116	Nudix type motif-containing
1	0.116	C2-set domain containing
1	0.116	C2 tensin-type domain containing
310	35.963	Unclassified

Supplementary Table 20. NIH drug classes observed in drug-mutation clusters

Paired Mutations	Percent of all Paired Mutations	NIH Classifications
586	33.239	Anti-inflammatory agents (acetic acid derivatives)
196	11.117	Iodine-containing contrast media
92	5.218	Tyrosine kinase inhibitors
33	1.872	Calcium metabolism regulators
30	1.702	Antiasthmatics/antiallergics (not acting primarily as antihistamines, leukotriene biosynthesis inhibitors)
22	1.248	PDE5 inhibitors
12	0.681	Receptor molecules, native or modified; complement receptors
12	0.681	Gabamimetics
12	0.681	Growth factors
12	0.681	Progesterone receptor antagonists
11	0.624	Antihyperglycemics
8	0.454	Benzodiazepine receptor antagonists/agonists
6	0.340	Phenylpyridine vasodilators (nifedipine type)
6	0.340	Enzyme inhibitors, inhibitors of histone deacetylase
6	0.340	Progestins
6	0.340	Antiandrogens
6	0.340	Carbonic anhydrase inhibitors
5	0.284	Antibiotics (Streptomyces strains)
5	0.284	Antihypertensives (guanidine derivatives)
4	0.227	Antineoplastics (arabinofuranosyl derivatives)
4	0.227	Ribofuranil derivatives (pyrazofurin type)
4	0.227	Antineoplastic thymidylate synthetase inhibitors
4	0.227	Dopamine receptor agonists
3	0.170	Anti-inflammatory/analgesic agents (ibuprofen type)
3	0.170	Acetylcholinesterase inhibitors used in the treatment of Alzheimer's disease
3	0.170	Diuretics (furosemide type)
3	0.170	Antiviral substances, neuraminidase inhibitors
3	0.170	Phosphoro-derivatives
2	0.113	Estrogen antagonists
2	0.113	Anticoagulant (Factor Xa inhibitor)
2	0.113	Nucleoside antiviral or antineoplastic agents, cytarabine or azarabine derivatives
2	0.113	Ergot alkaloid derivatives
2	0.113	Arotinoids
2	0.113	MAO inhibitors, type B
2	0.113	Angiotensin II receptor antagonists
2	0.113	Antibiotics (rifamycin derivatives)
2	0.113	Positive inotropic agents (pimobendan type)
1	0.057	Androgens

Supplementary Table 21. DrugBank drug classes observed in drug-mutation clusters

Paired Mutations	Percent of all Paired Mutations	DrugBank Classifications
696	39.478	Antineoplastic Agents
479	27.170	Dietary Supplements
478	27.113	Supplements
477	27.056	Micronutrients
199	11.288	Vasodilator Agents
190	10.777	Anti-Arrhythmia Agents
189	10.720	Analgesics
187	10.607	Cardiovascular Agents
54	3.063	Bone Density Conservation Agents
50	2.836	Antihypocalcemic Agents
39	2.212	Anticonvulsants
34	1.929	Bisphosphonates
30	1.702	Diuretics
30	1.702	Antiresorptives
29	1.645	Calcium Channel Blockers
29	1.645	Contraceptive Agents
25	1.418	Carbonic Anhydrase Inhibitors
23	1.305	Estrogens
23	1.305	Anti-menopausal Agents
18	1.021	Hydroxymethylglutaryl-CoA Reductase Inhibitors
17	0.964	Estrogen Antagonists
15	0.851	Non-Essential Amino Acids
15	0.851	Selective Estrogen Receptor Modulators
15	0.851	Keratolytic Agents
14	0.794	Amino Acids, Essential
14	0.794	Glycine Agents
14	0.794	Anti-Inflammatory Agents, Non-Steroidal
14	0.794	Contraceptives, Oral, Synthetic
14	0.794	Cyclooxygenase Inhibitors
13	0.737	Anti-Inflammatory Agents
12	0.681	Menstruation-Inducing Agents
12	0.681	Luteolytic Agents
12	0.681	Anti-Anxiety Agents
12	0.681	Antiparkinson Agents
12	0.681	Excitatory Amino Acid Antagonists
12	0.681	Abortifacient Agents, Steroidal
12	0.681	Contraceptives, Postcoital, Synthetic
12	0.681	Hormone Antagonists
12	0.681	Antimanic Agents
12	0.681	Phosphodiesterase 5 Inhibitors

11	0.624	Tocolytic Agents
11	0.624	Antidepressive Agents, Second-Generation
11	0.624	Gout Suppressants
9	0.510	Anti-Impotence Agents
8	0.454	Antiemetics
8	0.454	Nootropic Agents
8	0.454	Antineoplastic Agents, Hormonal
8	0.454	Sympathomimetics
8	0.454	Anti-Infective Agents, Local
8	0.454	Antihypertensive Agents
8	0.454	Immunosuppressive Agents
8	0.454	Protein Kinase Inhibitors
7	0.397	Central Nervous System Depressants
7	0.397	Solvents
7	0.397	Cardiotonic Agents
7	0.397	Anti-Bacterial Agents
6	0.340	Histone Deacetylase Inhibitors
6	0.340	Anticholesteremic Agents
6	0.340	Glucocorticoids
6	0.340	Vitamins
6	0.340	Lipotropic Agents
6	0.340	Enzyme Inhibitors
6	0.340	Vitamin B Complex
5	0.284	Gastrointestinal Agents
5	0.284	Antithyroid Agents
5	0.284	Antineoplastic Agents, Phytogetic
5	0.284	Macrolides
5	0.284	Antiviral Agents
5	0.284	Progestins
5	0.284	Vitamin D
5	0.284	Protein Synthesis Inhibitors
4	0.227	Antifungal Agents
4	0.227	Vasoconstrictor Agents
4	0.227	Dopamine Agents
4	0.227	Antimetabolites
4	0.227	Antiprotozoal Agents
4	0.227	Adrenergic alpha-Agonists
4	0.227	Analgesics, Non-Narcotic
4	0.227	Antimetabolites, Antineoplastic
3	0.170	Dihydropyridines
3	0.170	Antipyretics
3	0.170	Carcinogens

3	0.170	Trypanocidal Agents
3	0.170	Sodium Potassium Chloride Symporter Inhibitors
3	0.170	Neuromuscular Agents
3	0.170	Muscle Relaxants, Skeletal
3	0.170	Antianginal Agents
3	0.170	Antipsychotic Agents
3	0.170	Hypolipidemic Agents
3	0.170	Dopamine Antagonists
3	0.170	Estrogens, Non-Steroidal
3	0.170	Sodium Chloride Symporter Inhibitors
3	0.170	Phenothiazines
3	0.170	Photosensitizing Agents
2	0.113	Nicotinic Agonists
2	0.113	Antipsoriatic Agents
2	0.113	Anti-HIV Agents
2	0.113	Sulfonamides
2	0.113	Mineralocorticoid Receptor Antagonists
2	0.113	Monoamine Oxidase Inhibitors
2	0.113	Cholinesterase Inhibitors
2	0.113	Ganglionic Stimulants
2	0.113	Appetite Depressants
2	0.113	Dermatologic Agents
2	0.113	Antioxidants
2	0.113	Autonomic Agents
2	0.113	Cross-Linking Reagents
2	0.113	Calcium Channel Agonists
2	0.113	Pigmenting Agents
2	0.113	Neuroprotective Agents
2	0.113	Parasympathomimetics
2	0.113	Anti-glaucoma Agents
2	0.113	Purine analogues
2	0.113	Reverse Transcriptase Inhibitors
2	0.113	Homeopathic Agents
2	0.113	Hypoglycemic Agents
1	0.057	Anti-anemic Agents
1	0.057	Contraceptive Agents, Female
1	0.057	Folic Acid Antagonists
1	0.057	Antimalarials
1	0.057	Propionates
1	0.057	14-alpha Demethylase Inhibitors
1	0.057	Nutritional Support

Supplementary Table 22. Prioritized putative functional variants in rank order by closeness centrality

Closeness Centrality	No. patient samples	ClinVar Annotation (Likelihood of pathogenicity)	HGVSp Protein Annotation	Transcript (Ensembl74)	Protein	HGNC Gene Family
48.41880559	3	NULL	p.M133K	ENST00000445888	TP53	Unclassified
31.95012072	1	NULL	p.L380In_frame_del	ENST00000396611	PIK3R1	SH2_domain_containing
28.12904525	1	NULL	p.H168R	ENST00000445888	TP53	Unclassified
28.12904525	1	NULL	p.H168P	ENST00000445888	TP53	Unclassified
27.87368317	1	NULL	p.A59T	ENST00000256078	KRAS	RAS_type_family_GTPases
27.87368317	1	NULL	p.A59G	ENST00000256078	KRAS	RAS_type_family_GTPases
27.87368317	1	NULL	p.A59E	ENST00000256078	KRAS	RAS_type_family_GTPases
27.59976191	2	NULL	p.S240G	ENST00000445888	TP53	Unclassified
26.92128345	1	NULL	p.F134V	ENST00000445888	TP53	Unclassified
26.92128345	2	NULL	p.F134L	ENST00000445888	TP53	Unclassified
26.65042544	2	NULL	p.R196P	ENST00000445888	TP53	Unclassified
20.17381059	1	NULL	p.R109K	ENST00000415913	IDH1	Unclassified
18.33718489	1	NULL	p.L137Q	ENST00000445888	TP53	Unclassified
17.47192205	1	NULL	p.I251S	ENST00000445888	TP53	Unclassified
17.31170952	2	NULL	p.K379N	ENST00000396611	PIK3R1	SH2_domain_containing
17.31170952	1	NULL	p.K379E	ENST00000396611	PIK3R1	SH2_domain_containing
12.40718061	1	NULL	p.461In_frame_insREKS	ENST00000396611	PIK3R1	SH2_domain_containing
9.82216427	2	NULL	p.S467L	ENST00000288602	BRAF	Unclassified
9.313584339	1	NULL	p.R139G	ENST00000361570	CDKN2A	Unclassified
9.313584339	4	NULL	p.A138V	ENST00000361570	CDKN2A	Unclassified
9.01433212	1	NULL	p.Q958R	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
7.715704853	1	NULL	p.F90S	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
6.20480619	1	NULL	p.D537Y	ENST00000342988	SMAD4	SMAD_family
6.20480619	1	NULL	p.D537V	ENST00000342988	SMAD4	SMAD_family
6.20480619	1	NULL	p.D537G	ENST00000342988	SMAD4	SMAD_family
6.20480619	1	NULL	p.D537E	ENST00000342988	SMAD4	SMAD_family
6.175116951	2	NULL	p.P471L	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
6.175116951	1	NULL	p.P471A	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
6.013880515	1	NULL	p.D560H	ENST00000396611	PIK3R1	SH2_domain_containing
6.013880515	2	NULL	p.D560G	ENST00000396611	PIK3R1	SH2_domain_containing
5.927272214	1	NULL	p.L70H	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
5.558446135	1	NULL	p.E62K	ENST00000256078	KRAS	RAS_type_family_GTPases
5.516677126	1	Pathogenic	p.S65W	ENST00000256474	VHL	Unclassified
5.516677126	2	NULL	p.S65L	ENST00000256474	VHL	Unclassified
5.383646501	2	NULL	p.D594N	ENST00000288602	BRAF	Unclassified
5.383646501	1	NULL	p.D594H	ENST00000288602	BRAF	Unclassified
5.383646501	1	NULL	p.D594G	ENST00000288602	BRAF	Unclassified
5.122446591	2	NULL	p.C71Y	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
5.108581382	1	NULL	p.R789Q	ENST00000274376	RASA1	C2_and_RasGAP_domain_containing Pleckstrin_homology_domain_containing SH2_domain_containing
5.108581382	1	NULL	p.R789L	ENST00000274376	RASA1	C2_and_RasGAP_domain_containing Pleckstrin_homology_domain_containing SH2_domain_containing
5.005043401	2	Pathogenic	p.H93R	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
5.005043401	1	NULL	p.H93L	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
4.882928745	1	NULL	p.R389H	ENST00000382580	CHEK2	Unclassified
4.882928745	1	NULL	p.R389G	ENST00000382580	CHEK2	Unclassified
4.882928745	1	NULL	p.R389C	ENST00000382580	CHEK2	Unclassified
4.784147755	1	NULL	p.Q171K	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
4.664303134	2	NULL	p.E365V	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
4.664303134	2	NULL	p.E365K	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
4.630001099	1	NULL	p.F254I	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
4.540138193	1	Uncertain_significance	p.L861R	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
4.540138193	3	NULL	p.L861Q	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
4.180603825	1	NULL	p.I36M	ENST00000256078	KRAS	RAS_type_family_GTPases
4.001016126	1	NULL	p.D956H	ENST00000343537	TP53BP2	Ankyrin_repeat_domain_containing Protein_phosphatase_1_regulatory_subunits
3.965100103	2	NULL	p.Y545C	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
3.87047826	1	Uncertain_significance	p.G127V	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
3.87047826	3	Pathogenic	p.G127R	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
3.864313046	2	NULL	p.G129V	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
3.864313046	2	Pathogenic	p.G129E	ENST00000371953	PTEN	C2_tensin-type_domain_containing Dual_specificity_phosphatases
3.807783423	1	NULL	p.S426L	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
3.74191187	1	NULL	p.W88R	ENST00000256474	VHL	Unclassified
3.74191187	2	NULL	p.W88L	ENST00000256474	VHL	Unclassified
3.645542562	1	NULL	p.D537Y	ENST00000342988	SMAD4	SMAD_family
3.645542562	1	NULL	p.D537V	ENST00000342988	SMAD4	SMAD_family
3.645542562	1	NULL	p.D537G	ENST00000342988	SMAD4	SMAD_family
3.645542562	1	NULL	p.D537E	ENST00000342988	SMAD4	SMAD_family
3.61363956	2	NULL	p.G114R	ENST00000256474	VHL	Unclassified
3.61363956	2	NULL	p.G114R	ENST00000256474	VHL	Unclassified

3.524810784	2	NULL	p.R139Q	ENST00000361570	CDKN2A	Unclassified
3.508825341	1	NULL	p.S69in_frame_insD	ENST00000396611	PIK3R1	SH2_domain_containing
3.508825341	1	NULL	p.A69in_frame_insGLYE	ENST00000396611	PIK3R1	SH2_domain_containing
3.482561942	3	NULL	p.G1049R	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
3.359889684	1	NULL	p.T80R	ENST00000397062	NFE2L2	Basic_leucine_zipper_proteins
3.359889684	2	NULL	p.T80P	ENST00000397062	NFE2L2	Basic_leucine_zipper_proteins
3.359889684	1	NULL	p.T80K	ENST00000397062	NFE2L2	Basic_leucine_zipper_proteins
3.315453444	3	NULL	p.L62R	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
3.260166059	1	NULL	p.H115Y	ENST00000256474	VHL	Unclassified
3.260166059	2	NULL	p.H115N	ENST00000256474	VHL	Unclassified
3.184867508	1	NULL	p.D450N	ENST00000402690	SMAD2	SMAD_family
3.129769274	1	NULL	p.DRLY464in_frame_del	ENST00000396611	PIK3R1	SH2_domain_containing
3.129769274	1	NULL	p.D464V	ENST00000396611	PIK3R1	SH2_domain_containing
3.089348297	1	NULL	p.R415H	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
3.089348297	1	NULL	p.R415C	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
3.016291602	1	NULL	p.S256Y	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
3.016291602	3	NULL	p.S256F	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
3.001930343	1	NULL	p.R405	ENST00000264497	IL21	Interleukins
3.001930343	3	NULL	p.R40H	ENST00000264497	IL21	Interleukins
2.837601759	1	NULL	p.Y79S	ENST00000522337	TCEB1	Unclassified
2.837601759	1	NULL	p.Y79N	ENST00000522337	TCEB1	Unclassified
2.837601759	1	NULL	p.Y79F	ENST00000522337	TCEB1	Unclassified
2.67258227	2	NULL	p.R268H	ENST00000327367	SMAD3	SMAD_family
2.67258227	1	NULL	p.R268C	ENST00000327367	SMAD3	SMAD_family
2.655319912	1	NULL	p.C90Y	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
2.655319912	1	NULL	p.C90G	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
2.550533232	1	NULL	p.R483H	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
2.550533232	1	NULL	p.R483C	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
2.532499981	2	NULL	p.A178V	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
2.514557644	2	NULL	p.PVPHGLEDL447in_frame_del	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
2.512428361	1	NULL	p.G596D	ENST00000288602	BRAF	Unclassified
2.379273653	1	NULL	p.L597Q	ENST00000288602	BRAF	Unclassified
2.346200201	1	NULL	p.A11D	ENST00000311189	HRAS	RAS_type_family_GTPases
2.319236077	1	NULL	p.V85M	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
2.302171553	1	NULL	p.L116in_frame_del	ENST00000256474	VHL	Unclassified
2.25560293	1	NULL	p.C162Y	ENST00000256474	VHL	Unclassified
2.203357558	1	NULL	p.D1029H	ENST00000263967	PIK3CA	Phosphatidylinositol_3-kinase_subunits
2.182287415	1	NULL	p.D109in_frame_del	ENST00000361570	CDKN2A	Unclassified
2.172632678	3	NULL	p.H304Y	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
2.095804869	1	NULL	p.R729W	ENST00000321117	DNMT3A	Unclassified
2.095804869	2	NULL	p.R729Q	ENST00000321117	DNMT3A	Unclassified
2.023601134	2	NULL	p.D198N	ENST00000300305	RUNX1	Unclassified
2.023601134	1	NULL	p.D198G	ENST00000300305	RUNX1	Unclassified
2.017673887	1	NULL	p.R144H	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
2.017673887	1	NULL	p.R144C	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
2.014694447	1	NULL	p.W131R	ENST00000393331	SPOP	BTB_(POZ)_domain_containing
2.014694447	1	NULL	p.W131G	ENST00000393331	SPOP	BTB_(POZ)_domain_containing
2.014694447	1	NULL	p.W131C	ENST00000393331	SPOP	BTB_(POZ)_domain_containing
1.983348841	1	NULL	p.E84V	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
1.972091686	1	NULL	p.M291I	ENST00000415913	IDH1	Unclassified
1.940841816	1	Uncertain_significance	p.L833V	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
1.940841816	1	NULL	p.L833F	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
1.93763312	1	NULL	p.I1864V	ENST00000382044	TP53BP1	Unclassified
1.874759582	2	NULL	p.G143K	ENST00000361570	CDKN2A	Unclassified
1.804391348	1	NULL	p.R832H	ENST00000275493	EGFR	Receptor_Tyrosine_Kinases
1.729902486	1	NULL	p.R135R	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.729902486	1	NULL	p.R135N	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.691769746	1	NULL	p.C18Y	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.691769746	1	NULL	p.C18F	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.675974269	1	NULL	p.S618L	ENST00000380982	FLT3	CD_molecules Immunoglobulin-like_domain_containing Receptor_Tyrosine_Kinases
1.497369249	1	NULL	p.V220M	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
1.381239623	1	NULL	p.Y47C	ENST00000382580	CHEK2	Unclassified
1.278335779	2	NULL	p.R90C	ENST00000284818	LY96	Unclassified
1.26772085	1	NULL	p.E439K	ENST00000355622	TLR4	CD_molecules
1.26772085	1	NULL	p.E439A	ENST00000355622	TLR4	CD_molecules
1.264288905	1	NULL	p.M50V	ENST00000216225	RBX1	Ring_finger_proteins
1.264288905	1	NULL	p.M50I	ENST00000216225	RBX1	Ring_finger_proteins
1.190534559	1	NULL	p.G543W	ENST00000602748	CUL1	Unclassified
1.190534559	1	NULL	p.G543R	ENST00000602748	CUL1	Unclassified
1.153952922	1	NULL	p.P305Q	ENST00000402690	SMAD2	SMAD_family

1.153952922	1	NULL	p.P305L	ENST00000402690	SMAD2	SMAD_family
1.148857106	2	NULL	p.G617E	ENST00000380982	FLT3	CD_molecules Immunoglobulin-like_domain_containing Receptor_Tyrosine_Kinases
1.135525831	1	NULL	p.R506S	ENST00000602748	CUL1	Unclassified
1.135525831	1	NULL	p.R506H	ENST00000602748	CUL1	Unclassified
1.124093262	1	NULL	p.A59T	ENST00000311189	HRAS	RAS_type_family_GTPases
1.116786255	2	NULL	p.K125Q	ENST00000284818	LY96	Unclassified
1.112772008	1	NULL	p.E758Q	ENST00000602748	CUL1	Unclassified
1.112772008	1	NULL	p.E758D	ENST00000602748	CUL1	Unclassified
1.105733219	1	NULL	p.A22V	ENST00000303910	HIST1H2AE	Histones
1.105733219	1	NULL	p.A22T	ENST00000303910	HIST1H2AE	Histones
1.105618744	2	NULL	p.G1533E	ENST00000256935	DOCK2	Unclassified
1.073963668	1	NULL	p.S476R	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
1.073963668	1	NULL	p.S476I	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
1.014138155	2	NULL	p.S276L	ENST00000402690	SMAD2	SMAD_family
1.009112638	2	NULL	p.L1527H	ENST00000256935	DOCK2	Unclassified
1.008946033	1	NULL	p.TKAVTKYTS117in_frame_del	ENST00000274764	HIST1H2BA	Histones
1.008946033	1	NULL	p.T117A	ENST00000274764	HIST1H2BA	Histones
1.00614634	1	NULL	p.C18Y	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.00614634	1	NULL	p.C18F	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
1.001436456	1	NULL	p.R34S	ENST00000264497	IL21	Interleukins
1.001436456	1	NULL	p.R34C	ENST00000264497	IL21	Interleukins
0.991347685	1	NULL	p.G509W	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.881715083	1	NULL	p.I319S	ENST00000382580	CHEK2	Unclassified
0.843299045	1	NULL	p.D109H	ENST00000361570	CDKN2A	Unclassified
0.840210304	1	NULL	p.S546L	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.754925512	1	NULL	p.T385K	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.695975198	1	NULL	p.D355G	ENST00000342988	SMAD4	SMAD_family
0.635102071	1	NULL	p.S585T	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.630996627	1	NULL	p.G437R	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.598317025	1	NULL	p.D33N	ENST00000311189	HRAS	RAS_type_family_GTPases
0.592853736	1	NULL	p.D33N	ENST00000311189	HRAS	RAS_type_family_GTPases
0.572090204	1	NULL	p.D355G	ENST00000342988	SMAD4	SMAD_family
0.47875245	1	NULL	p.D304G	ENST00000402690	SMAD2	SMAD_family
0.460030453	1	NULL	p.T145P	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
0.456319897	1	NULL	p.R543G	ENST00000603548	FBXW7	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.407839542	1	NULL	p.G15S	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
0.366856295	1	NULL	p.L173M	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
0.336982472	1	NULL	p.Q405L	ENST00000327367	SMAD3	SMAD_family
0.306240843	1	NULL	p.F261L	ENST00000270172	DNMT3L	Unclassified
0.267827058	1	NULL	p.G603W	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.252921821	1	NULL	p.H147Y	ENST00000263915	GRB14	Pleckstrin_homology_domain_containing SH2_domain_containing
0.246188708	1	NULL	p.N39S	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
0.245795419	1	NULL	p.S143F	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
0.242051211	1	NULL	p.T468A	ENST00000287820	PPARG	Nuclear_hormone_receptors
0.238728725	1	NULL	p.M266I	ENST00000315985	PPP2R2A	Protein_phosphatase_2_regulatory_subunits WD_repeat_domain_containing
0.228419611	1	NULL	p.D215H	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
0.221677401	1	NULL	p.S67L	ENST00000522337	TCEB1	Unclassified
0.197937855	1	NULL	p.K121E	ENST00000541790	HIST1H2BJ	Histones
0.19562623	1	NULL	p.R105Q	ENST00000322088	PPP2R1A	Protein_phosphatase_2_regulatory_subunits
0.182362042	1	NULL	p.G524C	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.182281806	1	NULL	p.T90I	ENST00000216225	RBX1	Ring_finger_proteins
0.172255034	1	NULL	p.M330I	ENST00000602142	VAV1	Pleckstrin_homology_domain_containing Rho_guanine_nucleotide_exchange_factors SH2_domain_containing
0.164865791	1	NULL	p.A61V	ENST00000216225	RBX1	Ring_finger_proteins
0.164379252	1	NULL	p.G477S	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.154397858	1	NULL	p.L434F	ENST00000382580	CHEK2	Unclassified
0.152620053	1	NULL	p.L419F	ENST00000355622	TLR4	CD_molecules
0.151035766	1	NULL	p.A11D	ENST00000311189	HRAS	RAS_type_family_GTPases
0.147249329	1	NULL	p.R329W	ENST00000367980	NR1I3	Nuclear_hormone_receptors
0.143697825	1	NULL	p.R321Q	ENST00000370187	BTRC	F-box_and_WD_repeat_domain_containing WD_repeat_domain_containing
0.143580833	1	NULL	p.L446V	ENST00000402690	SMAD2	SMAD_family
0.141148073	1	NULL	p.Q61R	ENST00000356142	RAC1	Endogenous_ligands Rho_family_GTPases
0.138819086	1	NULL	p.N942H	ENST00000274376	RASA1	C2_and_RasGAP_domain_containing Pleckstrin_homology_domain_containing SH2_domain_containing
0.13247423	1	NULL	p.S86G	ENST00000522337	TCEB1	Unclassified
0.132377231	1	NULL	p.G173A	ENST00000361570	CDKN2A	Unclassified
0.129507766	1	NULL	p.D300N	ENST00000402690	SMAD2	SMAD_family
0.117448402	1	NULL	p.D77G	ENST00000397062	NFE2L2	Basic_leucine_zipper_proteins
0.101555192	1	NULL	p.G333S	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.099119113	1	NULL	p.R383W	ENST00000395472	SOCS4	SH2_domain_containing Suppressors_of_cytokine_signaling
0.097458251	1	NULL	p.G527F	ENST00000393623	KEAP1	BTB_(POZ)_domain_containing Kelch-like
0.089629197	1	NULL	p.R82C	ENST00000522337	TCEB1	Unclassified

0.081572836	1	NULL	p.R2015H	ENST00000361243	AKAP13	A-kinase_anchor_proteins Pleckstrin_homology_domain_containing Rho_guanine_nucleotide_exchange_factors minor_histocompatibility_antigens
0.081216245	1	NULL	p.F440L	ENST00000355622	TLR4	CD_molecules
0.080658059	1	NULL	p.D1736N	ENST00000296440	PLXNB1	Plexins
0.07833203	1	NULL	p.V1539F	ENST00000256935	DOCK2	Unclassified
0.070803402	1	NULL	p.R83L	ENST00000412916	CBFB	Unclassified
0.051679474	1	NULL	p.T175I	ENST00000510038	H2AFY	Histones
0.04577959	1	NULL	p.E966Q	ENST00000426016	SOS1	Pleckstrin_homology_domain_containing Rho_guanine_nucleotide_exchange_factors
0.042924769	1	NULL	p.E352K	ENST00000287820	PPARG	Nuclear_hormone_receptors
0.040096506	1	NULL	p.R800I	ENST00000397843	ARHGEF12	Rho_guanine_nucleotide_exchange_factors
0.033475404	1	NULL	p.R720H	ENST00000321117	DNMT3A	Unclassified
0.032849911	1	NULL	p.Q211R	ENST00000395755	IL21R	CD_molecules Interleukin_receptors
0.032101341	1	NULL	p.E499D	ENST00000602748	CUL1	Unclassified
0.02924737	1	NULL	p.Y1848C	ENST00000382044	TP53BP1	Unclassified
0.025703836	1	NULL	p.L442V	ENST00000402690	SMAD2	SMAD_family
0.024220866	1	NULL	p.I1534S	ENST00000256935	DOCK2	Unclassified
0.022762645	1	NULL	p.D33Y	ENST00000264497	IL21	Interleukins
0.022577137	1	NULL	p.A53V	ENST00000303910	HIST1H2AE	Histones
0.021345867	1	NULL	p.S257P	ENST00000380488	ASB9	Ankyrin_repeat_domain_containing
0.020723168	1	NULL	p.P376S	ENST00000370360	GLMN	Unclassified
0.020063756	1	NULL	p.R577Q	ENST00000602748	CUL1	Unclassified
0.018918775	1	NULL	p.E384K	ENST00000377970	MYC	Basic_helix-loop-helix_proteins
0.018680101	1	NULL	p.L1531P	ENST00000256935	DOCK2	Unclassified
0.018591619	1	NULL	p.F418L	ENST00000355622	TLR4	CD_molecules
0.013223596	1	NULL	p.D510G	ENST00000602748	CUL1	Unclassified
0.013207932	1	NULL	p.S415I	ENST00000355622	TLR4	CD_molecules
0.011960055	1	NULL	p.D291N	ENST00000367980	NR1I3	Nuclear_hormone_receptors
0.009146971	1	NULL	p.L31M	ENST00000349496	CTNBN1	Armadillo_repeat_containing
0.008290971	1	NULL	p.Y87S	ENST00000393331	SPOP	BTB_(POZ)_domain_containing

Supplementary Table 23. Sample association table of three HUGO genes and UniProt ID, PDB IDs and transcript IDs

HUGO Gene	UniProt ID	PDB IDs	Transcript IDs
PIK3CA	P42336	2ENQ 2RDO 3HHM 3HIZ 3ZIM	ENST00000263967 100%
A1CF	Q9NQ94	2CPD	ENST00000282641 100%
			ENST00000373993 100%
			ENST00000337664 100%
AADAT	Q8N5Z0	2QLR 2R2N 2VGZ 2XH1 3DC1 3UE8 4GDY 4GE4 4GE7 4GE9	ENST00000353187 100%
			ENST00000515480 100%

Supplementary Table 24.

Due to size restrictions, this table could not be included. For additional information, please contact the corresponding author.