

**Table S1:** Accession numbers of the microarray profiles used to derive the compendium of immune genes

DB source	Dataset ID	Publication (PMID)	Platform (s)	Study description
ArrayExpress	<a href="#">E-MEXP-380</a>	<a href="#">16966385</a>	HG-U133A	Human NK cells were sorted into CD56dim and CD56bright NK cell subpopulations. Gene profiling was performed, in order to define characteristics of both populations. The experiment contains systematically annotated and consistently normalized human gene expression data matrix of 5372 samples integrated from 206 public experiments of a HG-U133A array platform, representing 369 different cell and tissue types, disease states and cell lines
ArrayExpress	<a href="#">E-MTAB-62</a>	<a href="#">20379172</a>	HG-U133A	Transcription profiling of human precursor-B-cell differentiation: five subsets representing the main stages of human precursor-B-cell differentiation and CD34+lin- cord blood cells were purified.
ArrayExpress	<a href="#">E-MEXP-384</a>	<a href="#">21680796</a>	HG-U133A	Transcription profiling of human memory T cells stimulated with PhiI p-extract in healthy and alergic individuals
ArrayExpress	<a href="#">E-MEXP-243</a>	<a href="#">15746248</a>	HG-U133A	The data contains 79 different human tissues and cell types with 2 replicates per tissue/cell type.
ArrayExpress	<a href="#">E-TABM-145</a>	<a href="#">19274049</a>	HG-U133A	Expression profiling studies on colon cancer comparing tumoral and normal biopsies from a series of patients in order to identify molecular biomarkers. Expression profiles of twelve different types of human leukocytes from peripheral blood and bone marrow. The gene expression profiles are performed before and after treatment to induce activation and/or differentiation.
ArrayExpress	<a href="#">E-MTAB-57</a>	<a href="#">16919171</a>	HG-U133A	Gene-expression profiles of non-tumor-reactive CD8+ T cells
GEO	<a href="#">GSE22886</a>	<a href="#">15789058</a>	HG-U133A	Gene transcription profiles for the major leukocyte types in humans: Different leukocyte subsets were either isolated or differentiated from human blood to obtain consistently >95% pure populations. Gene profiles for activated effector cells such as macrophages, neutrophils and mast cells were also generated.
GEO	<a href="#">GSE11188</a>	<a href="#">19435912</a>	HG-U133A	Gene expression is measured in nine stages of T cell development.
GEO	<a href="#">GSE3982</a>	<a href="#">16339519</a>	HG-U133A	
GEO	<a href="#">GSE22601</a>	<a href="#">15928199</a>	HG-U133A	

GEO	<a href="#"><u>GSE13017</u></a>	<a href="#"><u>19453521</u></a>	HG-U133A	Homo sapiens CD4+CD25- and CD4+CD25hi T cells were sorted from healthy individual donors and analyzed ex vivo (non-activated) or 1 day following T-cell receptor activation using anti-CD3/IL2 and anti-CD3-/CD28/IL2 (activated), respectively. Subpopulations of human fetal thymocyte and circulating naïve T cells were obtained through FACS sorting.
GEO	<a href="#"><u>GSE1460</u></a>	<a href="#"><u>15210650</u></a>	HG-U133A	Expression profiles of human Treg cells obtained from peripheral blood by cell sorting and their naive controls.
GEO	<a href="#"><u>GSE4571</u></a>	<a href="#"><u>16836768</u></a>	HG-U133A	Expression data from developing regulatory T cells
GEO	<a href="#"><u>GSE24634</u></a>	<a href="#"><u>21347372</u></a>	HG-U133A	Gene expression signatures in elderly CD4 T cell responses
GEO	<a href="#"><u>GSE36476</u></a>	<a href="#"><u>22434910</u></a>	HG-U133A	Gene expression profiling of CD4+ and CD8+ T-cells from gene therapy treated ADA patients and from healthy controls
GEO	<a href="#"><u>GSE1133</u></a>	<a href="#"><u>15075390</u></a>	HG-U133A	Tissue-specific pattern of mRNA expression in 79 human and mouse tissues
GEO	<a href="#"><u>GSE3996</u></a>	<a href="#"><u>17573725</u></a>	HG-U133A	Differential gene expression in regulatory T-cells after activation by temporary contact with dendritic cells
GEO	<a href="#"><u>GSE1323</u></a>	<a href="#"><u>16531451</u></a>	HG-U133A	Expression profiling of the SW480 and SW620 colon cancer cells lines derived from a primary tumor and a corresponding metastasis from the same individual.
GEO	<a href="#"><u>GSE24514</u></a>	<a href="#"><u>21544814</u></a>	HG-U133A	Expression data from human MSI colorectal cancer and normal colonic mucosa
GEO	<a href="#"><u>GSE6740</u></a>	<a href="#"><u>17251300</u></a>	HG-U133A	Comparison of transcriptional profiles of CD4+ and CD8+ T cells from HIV-infected patients and uninfected control group-
GEO	<a href="#"><u>GSE8835</u></a>	<a href="#"><u>15965501</u></a>	HG-U133A	CD4 T cells and CD8 T cells were obtained from peripheral blood mononuclear cells of previously untreated patients with CLL and healthy individuals.
GEO	<a href="#"><u>GSE13411</u></a>	<a href="#"><u>19124732</u></a>	HG-U133A	Four subsets of human splenic B cells (naïve, IgM-memory, Ig isotype switched memory and plasma cells); sort-purified and analysed immediately ex vivo; performed in duplicate.
GEO	<a href="#"><u>GSE5580</u></a>	<a href="#"><u>17032758</u></a>	HG-U133A	Gene expression profiling of circulating total blood leukocytes, T-Cells, and Monocytes in severe trauma patients and healthy subjects.
GEO	<a href="#"><u>GSE6477</u></a>	<a href="#"><u>17409404</u></a>	HG-U133A	Expression data from different stages of plasma cell neoplasm.
GEO	<a href="#"><u>GSE4045</u></a>	<a href="#"><u>16819509</u></a>	HG-U133A	Expression profile of serrated and conventional colorectal tumors
GEO	<a href="#"><u>GSE2328</u></a>	<a href="#"><u>15781863</u></a>	HG-U133A	Application of genome-wide expression analysis to human health and disease

GEO	<a href="#"><u>GSE11430</u></a>	<a href="#"><u>18578872</u></a>	HG-U133_Plus_2	Gene expression profiles of human monocytes and monocyte-derived-macrophages.
GEO	<a href="#"><u>GSE2509</u></a>	<a href="#"><u>16531451</u></a>	HG-U133A	Two colon cancer cell lines are profiled: SW480 and SW620.
GEO	<a href="#"><u>GSE24759</u></a>	<a href="#"><u>21241896</u></a>	U133AAofAv2	38 distinct hematopoietic cell states based on cell surface marker expression, representing hematopoietic stem and progenitor cells, terminally differentiated cells, and intermediate states are defined.
GEO	<a href="#"><u>GSE41258</u></a>	<a href="#"><u>19359472</u></a>	HG-U133A	390 expression arrays from colorectal cancer patients
GEO	<a href="#"><u>GSE28726</u></a>	<a href="#"><u>21632718</u></a>	HG-U133_Plus_2	Microarray analysis was performed to determine the transcriptional profiles of NKT, CD1d-aGC+ Va24-, and CD4 T cells.
GEO	<a href="#"><u>GSE30687</u></a>	<a href="#"><u>21985787</u></a>	HG-U133A_2	Gene profiling of metastatic colorectal cancer cells (L1 and L2) and non-metastatic colorectal cancer cells (sw620 and sw480)
GEO	<a href="#"><u>GSE35340</u></a>	<a href="#"><u>23074278</u></a>	HG-U133_Plus_2	Transcriptome analysis of highly purified CD207+/CD1a+ Langerhans cell histiocytosis (LCH) cells derived from different locations and disease courses and three major human dendritic cell lineages: epidermal Langerhans cells, myeloid dendritic cells (mDC1) and plasmacytoid dendritic cells (pDC).
GEO	<a href="#"><u>GSE49910</u></a>	<a href="#"><u>24053356</u></a>	HG-U133_Plus_2	Meta-analysis of publically available human primary cell data
GEO	<a href="#"><u>GSE51540</u></a>	<a href="#"><u>24492460</u></a>	HG-U133_Plus_2	Cassical Th17 cells (Th17) or those generated in the presence of the inhibitor (iTTh17) are sorted and analyzed by full transcriptome microarray analysis.

**Table S2:** List of immune metagenes.

Name	CellType
AKNA	Activated B cells
ARHGAP25	Activated B cells
CCL21	Activated B cells
CD180	Activated B cells
CD2	Activated B cells
CD27	Activated B cells
CD37	Activated B cells
CD38	Activated B cells
CLEC17A	Activated B cells
CLEC9A	Activated B cells
CLECL1	Activated B cells
FAIM3	Activated B cells
FAM65B	Activated B cells
GIMAP4	Activated B cells
MAP4K1	Activated B cells
PAX5	Activated B cells
TNFRSF17	Activated B cells
TRAF3IP3	Activated B cells
ANLN	Activated CD4
BRIP1	Activated CD4
BUB1B	Activated CD4
CASC5	Activated CD4
CCNB1	Activated CD4
CCNB2	Activated CD4
CCNE2	Activated CD4
CEP55	Activated CD4
CKAP2L	Activated CD4
DLGAP5	Activated CD4
DTL	Activated CD4
E2F8	Activated CD4
ECT2	Activated CD4
ESCO2	Activated CD4
EXO1	Activated CD4
EXOC6	Activated CD4
FBXO5	Activated CD4
FIGNL1	Activated CD4
HELLS	Activated CD4
HMMR	Activated CD4
IARS	Activated CD4
KIF11	Activated CD4
KIF18A	Activated CD4
KIF20A	Activated CD4
KNTC1	Activated CD4
MAD2L1	Activated CD4
MASTL	Activated CD4
MTHFD2	Activated CD4
NCAPG2	Activated CD4

NCAPH	Activated CD4
NEIL3	Activated CD4
NUF2	Activated CD4
PRC1	Activated CD4
PSAT1	Activated CD4
RTKN2	Activated CD4
ADRM1	Activated CD8
AHSA1	Activated CD8
C1GALT1C1	Activated CD8
CCT5	Activated CD8
CCT6B	Activated CD8
CETN3	Activated CD8
CSE1L	Activated CD8
EIF2S1	Activated CD8
GAL	Activated CD8
GEMIN6	Activated CD8
GPT2	Activated CD8
KIAA0101	Activated CD8
MND1	Activated CD8
MPZL1	Activated CD8
MRPS16	Activated CD8
PCNA	Activated CD8
PTRH2	Activated CD8
RFC5	Activated CD8
SPC25	Activated CD8
TIMM13	Activated CD8
TIMM8B	Activated CD8
TK1	Activated CD8
TUBB	Activated CD8
TXNDC17	Activated CD8
ADAM19	Central memory CD4
AHNAK	Central memory CD4
AIM2	Central memory CD4
COL4A1	Central memory CD4
CYLD	Central memory CD4
DPEP2	Central memory CD4
EPHA4	Central memory CD4
FYN	Central memory CD4
IL6R	Central memory CD4
IPCEF1	Central memory CD4
KLF10	Central memory CD4
MAL	Central memory CD4
MALT1	Central memory CD4
NXN	Central memory CD4
OPTN	Central memory CD4
PLCL2	Central memory CD4
PNRC1	Central memory CD4
SMAD4	Central memory CD4
SPOCK2	Central memory CD4
TRIB2	Central memory CD4

TXK	Central memory CD4
ADAM23	Central memory CD8
ATP2B4	Central memory CD8
BCL2L11	Central memory CD8
CD300A	Central memory CD8
CD80	Central memory CD8
CHN1	Central memory CD8
F2R	Central memory CD8
F8	Central memory CD8
GABARAPL1	Central memory CD8
GPR183	Central memory CD8
KLRK1	Central memory CD8
MSC	Central memory CD8
PYHIN1	Central memory CD8
RCAN2	Central memory CD8
RGS1	Central memory CD8
SLAMF1	Central memory CD8
SLFN11	Central memory CD8
ZEB2	Central memory CD8
BST2	Cytotoxic cells
BTN3A2	Cytotoxic cells
IL10RA	Cytotoxic cells
KLRB1	Cytotoxic cells
LAT2	Cytotoxic cells
LILRA2	Cytotoxic cells
SELL	Cytotoxic cells
SLAMF6	Cytotoxic cells
SLAMF7	Cytotoxic cells
C1QC	DC
CCDC88A	DC
CCL13	DC
CCL3L1	DC
CCL3L3	DC
CD300E	DC
CD86	DC
CLEC1A	DC
CLEC4C	DC
CLEC5A	DC
CLIC2	DC
CSF2RA	DC
FAM49A	DC
FCGR1A	DC
FN1	DC
FSTL1	DC
GPR109B	DC
GPX3	DC
HLA-DQA2	DC
INHBA	DC
LGMN	DC
NGFR	DC

PDGFRL	DC
PDPN	DC
PRKAR2B	DC
SIGLEC1	DC
SIGLEC5	DC
SLAMF9	DC
STAB1	DC
THBD	DC
TNFAIP2	DC
TTYH2	DC
UBD	DC
VCAM1	DC
BMI1	Effector memory CD4
CASP3	Effector memory CD4
CNOT10	Effector memory CD4
COPB2	Effector memory CD4
DARS	Effector memory CD4
EXOSC9	Effector memory CD4
EZH2	Effector memory CD4
GDE1	Effector memory CD4
IFT74	Effector memory CD4
KLF5	Effector memory CD4
NDUFB9	Effector memory CD4
NUP205	Effector memory CD4
SHCBP1	Effector memory CD4
XRCC6	Effector memory CD4
APOBEC3H	Effector memory CD8
ARHGAP10	Effector memory CD8
ATP10D	Effector memory CD8
BIRC3	Effector memory CD8
C3AR1	Effector memory CD8
CCL4	Effector memory CD8
CD244	Effector memory CD8
CD55	Effector memory CD8
CFLAR	Effector memory CD8
CMKLR1	Effector memory CD8
DAPP1	Effector memory CD8
DFNB31	Effector memory CD8
DRAM1	Effector memory CD8
EFNA5	Effector memory CD8
FCGR2C	Effector memory CD8
FCGR3A	Effector memory CD8
FCRL6	Effector memory CD8
FGR	Effector memory CD8
GPR114	Effector memory CD8
GZMH	Effector memory CD8
HAPLN3	Effector memory CD8
HLA-DMB	Effector memory CD8
HLA-DPA1	Effector memory CD8
HLA-DPB1	Effector memory CD8

IFI16	Effector memory CD8
IKZF2	Effector memory CD8
IL15	Effector memory CD8
IL2RB	Effector memory CD8
JAKMIP1	Effector memory CD8
KLRD1	Effector memory CD8
LY96	Effector memory CD8
NFKBIA	Effector memory CD8
PLXNC1	Effector memory CD8
PPP4R1	Effector memory CD8
PTPN22	Effector memory CD8
RGS18	Effector memory CD8
SETD7	Effector memory CD8
SH2D1B	Effector memory CD8
SLA2	Effector memory CD8
STXBP1	Effector memory CD8
TLR5	Effector memory CD8
TYROBP	Effector memory CD8
CCL24	Eosinophil
CFD	Eosinophil
CREB3	Eosinophil
EGR1	Eosinophil
EPX	Eosinophil
FBXO16	Eosinophil
HFE	Eosinophil
HIVEP1	Eosinophil
HIVEP2	Eosinophil
MBP	Eosinophil
PRNP	Eosinophil
RNASE2	Eosinophil
RNASE3	Eosinophil
S100A4	Eosinophil
SIGLEC8	Eosinophil
ATP6V1A	iDC
C1QB	iDC
CHST11	iDC
CSF1	iDC
DPYD	iDC
FNDC3B	iDC
GRP	iDC
IL1RN	iDC
INPP5F	iDC
LPL	iDC
LPXN	iDC
MMD	iDC
PLAU	iDC
PLCB2	iDC
RAB38	iDC
RDX	iDC
RRAGD	iDC

TACSTD2	iDC
TGM2	iDC
TIMD4	iDC
TM7SF4	iDC
BANK1	Immature B cells
CD22	Immature B cells
CYBB	Immature B cells
ETS1	Immature B cells
FAM129C	Immature B cells
FCRL1	Immature B cells
FCRL2	Immature B cells
FCRL3	Immature B cells
FCRL5	Immature B cells
FCRLA	Immature B cells
HDAC9	Immature B cells
HLA-DOB	Immature B cells
HLA-DQA1	Immature B cells
HVCN1	Immature B cells
KIAA0226	Immature B cells
NCF1	Immature B cells
NCF1B	Immature B cells
P2RY10	Immature B cells
PNOC	Immature B cells
SP100	Immature B cells
STAP1	Immature B cells
TAGAP	Immature B cells
TXNIP	Immature B cells
ZCCHC2	Immature B cells
AIF1	Macrophages
CCL1	Macrophages
CCL14	Macrophages
CCL26	Macrophages
CD163	Macrophages
CD300LB	Macrophages
CNR1	Macrophages
CNR2	Macrophages
CPM	Macrophages
CSF3R	Macrophages
ENG	Macrophages
FCAR	Macrophages
IGF1	Macrophages
IL34	Macrophages
L1CAM	Macrophages
LILRA1	Macrophages
LILRA5	Macrophages
LRP1	Macrophages
MS4A7	Macrophages
MS4A8B	Macrophages
TREM1	Macrophages
TREML1	Macrophages

ACSL4	Mast cells
ADAMTS3	Mast cells
ADCYAP1	Mast cells
ARHGAP15	Mast cells
ATP8B4	Mast cells
C19orf59	Mast cells
CASQ1	Mast cells
CLC	Mast cells
CMA1	Mast cells
CPA3	Mast cells
CTSG	Mast cells
DUSP14	Mast cells
EGR3	Mast cells
EMR1	Mast cells
FST	Mast cells
HDC	Mast cells
HEY1	Mast cells
KRT1	Mast cells
LXN	Mast cells
MEIS2	Mast cells
MS4A2	Mast cells
MS4A3	Mast cells
NLRP3	Mast cells
NTRK1	Mast cells
PLAT	Mast cells
PTGS1	Mast cells
PTGS2	Mast cells
RGS16	Mast cells
SCG2	Mast cells
SDPR	Mast cells
SERPINB2	Mast cells
SIGLEC14	Mast cells
SIGLEC6	Mast cells
SLC18A2	Mast cells
SLC24A3	Mast cells
TAL1	Mast cells
TARP	Mast cells
TIE1	Mast cells
TIMP1	Mast cells
TNFAIP6	Mast cells
TSPAN4	Mast cells
VAT1	Mast cells
ATP5O	mDC
CBX1	mDC
DNAJC15	mDC
ENSA	mDC
FOXN3	mDC
PRCP	mDC
SSB	mDC
TPMT	mDC

AICDA	Memory B cells
CCNA2	Memory B cells
CDKN3	Memory B cells
CLCN5	Memory B cells
ENPP1	Memory B cells
FCER1A	Memory B cells
FCRL4	Memory B cells
MYC	Memory B cells
RUNX2	Memory B cells
SORL1	Memory B cells
SOX5	Memory B cells
STAT5A	Memory B cells
STAT5B	Memory B cells
TLR9	Memory B cells
ACTR3	Monocytes
ANXA5	Monocytes
ARPC2	Monocytes
ATP6V1B2	Monocytes
BASP1	Monocytes
CD300LF	Monocytes
DAZAP2	Monocytes
EIF4A1	Monocytes
EIF4G2	Monocytes
EMP3	Monocytes
FCN1	Monocytes
FTL	Monocytes
GABARAP	Monocytes
HIF1A	Monocytes
LITAF	Monocytes
NCOA4	Monocytes
OLR1	Monocytes
RAB1A	Monocytes
RHOA	Monocytes
SAT1	Monocytes
SDCBP	Monocytes
SRGN	Monocytes
TEK	Monocytes
TMBIM6	Monocytes
UBE2D3	Monocytes
ABTB1	Neutrophils
AMPD2	Neutrophils
CAMP	Neutrophils
EMR4P	Neutrophils
FPR1	Neutrophils
FPR2	Neutrophils
GPR77	Neutrophils
MAEA	Neutrophils
PROK2	Neutrophils
SEC14L1	Neutrophils
SEPX1	Neutrophils

SLC25A37	Neutrophils
TNFSF14	Neutrophils
TREML4	Neutrophils
VNN2	Neutrophils
XPO6	Neutrophils
AKT3	NK
AXL	NK
CDH2	NK
CRTAM	NK
CYTH1	NK
FASLG	NK
GRB2	NK
KLRG1	NK
LILRB5	NK
LST1	NK
MAPK4	NK
NOTCH3	NK
PIK3CG	NK
PILRA	NK
PLCG2	NK
SIGLEC7	NK
SIGLEC9	NK
C11orf75	NK56 bright
DYNLL1	NK56 bright
HCP5	NK56 bright
HDGFRP2	NK56 bright
KRT86	NK56 bright
MLST8	NK56 bright
MYL6B	NK56 bright
TAX1BP3	NK56 bright
AKR7A3	NK56 dim
CLTB	NK56 dim
FAM27A	NK56 dim
GLS2	NK56 dim
GPRC5C	NK56 dim
GRIN1	NK56 dim
HLA-E	NK56 dim
KIR2DS4	NK56 dim
KLHL21	NK56 dim
KRT80	NK56 dim
MPL	NK56 dim
PHRF1	NK56 dim
PORCN	NK56 dim
PQBP1	NK56 dim
PSMC4	NK56 dim
TEX264	NK56 dim
UPP1	NK56 dim
BTN2A2	NKT
CD101	NKT
GNLY	NKT

KIR2DL1	NKT
KIR2DL3	NKT
KIR3DL1	NKT
KIR3DL2	NKT
KLRC1	NKT
MICB	NKT
NCR1	NKT
NFATC2IP	NKT
TNFRSF11A	NKT
CBX6	pDC
DAB2	pDC
DDX17	pDC
HIGD1A	pDC
IDH3A	pDC
IL3RA	pDC
MAGED1	pDC
NUCB2	pDC
OFD1	pDC
OGT	pDC
PDIA4	pDC
SERTAD2	pDC
SIRPA	pDC
SPCS3	pDC
TMED2	pDC
TMX1	pDC
UGCG	pDC
ZDHHC17	pDC
BATF	T cells
BTLA	T cells
CCL11	T cells
CCL17	T cells
CCL22	T cells
CCL3	T cells
CCL5	T cells
CCL7	T cells
CCR1	T cells
CCR3	T cells
CCR4	T cells
CCR8	T cells
CD1A	T cells
CD1B	T cells
CD1C	T cells
CD1D	T cells
CD1E	T cells
CD247	T cells
CD28	T cells
CD3D	T cells
CD3E	T cells
CD3G	T cells
CD69	T cells

CD8A	T cells
CXCR1	T cells
CXCR4	T cells
CXCR5	T cells
CXCR6	T cells
FGFBP2	T cells
FLT3	T cells
FOSL1	T cells
GRAP2	T cells
HLA-DRA	T cells
HLA-DRB1	T cells
HLA-DRB5	T cells
HRH2	T cells
IFNG	T cells
IL10	T cells
IL12B	T cells
IL12RB1	T cells
IL12RB2	T cells
IL18R1	T cells
IL18RAP	T cells
IL1B	T cells
IL21	T cells
IL21R	T cells
IL24	T cells
IL26	T cells
IL27	T cells
IL2RA	T cells
IL6	T cells
IL7	T cells
IRF4	T cells
IRF8	T cells
ITGAL	T cells
ITK	T cells
JAK2	T cells
JAK3	T cells
LAIR1	T cells
LAT	T cells
LAX1	T cells
LCK	T cells
LCP2	T cells
LILRA3	T cells
LILRA4	T cells
LILRB1	T cells
LILRB2	T cells
LILRB3	T cells
LILRB4	T cells
MS4A4A	T cells
NAPSB	T cells
NFATC1	T cells
NFKB2	T cells

P2RY14	T cells
PIK3CD	T cells
POU2F2	T cells
PRF1	T cells
RUNX3	T cells
SPI1	T cells
STAT1	T cells
STAT4	T cells
TNF	T cells
TPRG1	T cells
TSLP	T cells
UBASH3B	T cells
ZAP70	T cells
B3GAT1	TFH
BCL6	TFH
CCR7	TFH
CD200	TFH
CD83	TFH
CD84	TFH
CDK5R1	TFH
FGF2	TFH
GPR18	TFH
PDCD1	TFH
ACP5	TGD
C1orf54	TGD
CARD8	TGD
CCL18	TGD
CD209	TGD
CD33	TGD
CECR1	TGD
CLEC10A	TGD
CLEC4A	TGD
CSF1R	TGD
FCER1G	TGD
FCGR2A	TGD
FCGR2B	TGD
FCGR3B	TGD
FGF7	TGD
FGL2	TGD
FPR3	TGD
GM2A	TGD
GPNMB	TGD
HCK	TGD
HK3	TGD
LIPA	TGD
MARCO	TGD
MMP12	TGD
MNDA	TGD
MRC1	TGD
MS4A6A	TGD

NPL	TGD
PLA2G7	TGD
PLEK	TGD
RAB23	TGD
RNASE6	TGD
SDC2	TGD
SLAMF8	TGD
SLC15A3	TGD
SLC38A6	TGD
SLC7A7	TGD
SPP1	TGD
TFEC	TGD
TM6SF1	TGD
TNFSF8	TGD
TREM2	TGD
TRPV2	TGD
ADAM8	Th1
CCR5	Th1
CD151	Th1
CD48	Th1
CD52	Th1
CD53	Th1
CD6	Th1
CD68	Th1
CD7	Th1
CD96	Th1
CD97	Th1
EBI3	Th1
GPR84	Th1
HAVCR2	Th1
ICAM1	Th1
ICAM3	Th1
IGSF6	Th1
IL12A	Th1
IL7R	Th1
IRF1	Th1
ITGA4	Th1
ITGAM	Th1
ITGAX	Th1
ITGB2	Th1
ITGB4	Th1
ITGB7	Th1
LTA	Th1
LTB	Th1
METRNL	Th1
P2RX5	Th1
PTPRC	Th1
SPN	Th1
TBX21	Th1
TLR6	Th1

TNFRSF1A	Th1
TNFRSF9	Th1
TRAT1	Th1
ABP1	Th17
B4GALNT4	Th17
C2CD4A	Th17
C2CD4B	Th17
CA2	Th17
CCDC65	Th17
CEACAM3	Th17
CHRM3	Th17
DOC2B	Th17
F12	Th17
FURIN	Th17
GPR25	Th17
IL17A	Th17
IL17C	Th17
IL17F	Th17
IL17RC	Th17
IL17RE	Th17
IL23A	Th17
ILDR1	Th17
LONRF3	Th17
LTK	Th17
MOCOS	Th17
SH2D6	Th17
TNIP2	Th17
TRAF3IP2	Th17
YBX2	Th17
ASB2	Th2
CALD1	Th2
CCR2	Th2
CSRP2	Th2
DAPK1	Th2
DLC1	Th2
DNAJC12	Th2
DUSP6	Th2
GATA3	Th2
GNAI1	Th2
HTR2B	Th2
LAMP3	Th2
NRP2	Th2
OSBPL1A	Th2
PDE4B	Th2
PHLDA1	Th2
PLA2G4A	Th2
RAB27B	Th2
RBMS3	Th2
RNF125	Th2
SIGLEC10	Th2

SKAP1	Th2
SMAD2	Th2
TMPRSS3	Th2
UBASH3A	Th2
CCL19	Treg
CD34	Treg
CD72	Treg
CTLA4	Treg
FOXP3	Treg
GADD45B	Treg
GEM	Treg
IL1RL1	Treg
IL9R	Treg
MADCAM1	Treg
MYH10	Treg
NCF2	Treg
RCSD1	Treg
RYR1	Treg
SELE	Treg
SELP	Treg
SFRP1	Treg
SIT1	Treg
TIGIT	Treg
TLR10	Treg
TLR2	Treg
TLR7	Treg
TLR8	Treg
TRAF1	Treg
WIPF1	Treg
TGFB1	Treg
ADORA3	MDSC
AG2	MDSC
ARG1	MDSC
BIN2	MDSC
C1orf162	MDSC
CAPS	MDSC
CD117	MDSC
CD11B	MDSC
CD11C	MDSC
CD124	MDSC
CD14	MDSC
CD15	MDSC
CD163L1	MDSC
CD1D1	MDSC
CD21	MDSC
CD23	MDSC
CD274	MDSC
CD31	MDSC
CD35	MDSC
CD40	MDSC

CD43	MDSC
CD44	MDSC
CD66B	MDSC
COX2	MDSC
CR2	MDSC
CTR9	MDSC
EBP	MDSC
FAM48A	MDSC
FAM70B	MDSC
FCER2	MDSC
FCGRT	MDSC
FERMT3	MDSC
FLOT1	MDSC
FLT1	MDSC
GIMAP7	MDSC
GLI4	MDSC
GNA15	MDSC
GPR34	MDSC
GPSM3	MDSC
HLA-DR	MDSC
IDO	MDSC
IKZF1	MDSC
IL12	MDSC
IL13	MDSC
IL18BP	MDSC
IL1R	MDSC
IL4RA	MDSC
INPP5D	MDSC
ITGA3	MDSC
KDR	MDSC
KRIT1	MDSC
LGALS3	MDSC
MGAT4A	MDSC
NAIP	MDSC
NEK3	MDSC
NFSF13	MDSC
NOG	MDSC
PARVG	MDSC
PDRG1	MDSC
PECAM1	MDSC
PIK3R5	MDSC
PPP1R2P4	MDSC
PSAP	MDSC
PTGES2	MDSC
PTPRE	MDSC
RNASE1	MDSC
RP11	MDSC
S100A8	MDSC
S100A9	MDSC
SELPLG	MDSC

SLA	MDSC
SLC36A1	MDSC
SLC44A1	MDSC
ST8SIA4	MDSC
STAT3	MDSC
STAT6	MDSC
TBXAS1	MDSC
TFGFB1	MDSC
TFGFB2	MDSC
TFGFB3	MDSC
TFGFB5	MDSC
TFRC	MDSC
TGFB2	MDSC
TPP1	MDSC
VTCN1	MDSC

**Table S3. Univariate and multivariate Cox Hazards Analysis of Patients with molecular phenotypes**

Variables	Univariate Cox model		Multivariate Cox model*		
	HR (95% CI)	p	HR (95% CI)	p	sign†
Tem CD8	0.46 (0.16-0.85)	0.026	0.61 (0.12-0.88)	0.044	*
Tem CD4	0.54 (0.43-0.98)	0.038	0.59 (0.35-1.01)	0.051	.
Treg	2.25 (1.57-3.69)	0.015	2.11 (1.24-3.76)	0.038	*
NK	0.64 (0.42-0.88)	0.057	0.69 (0.35-0.93)	0.065	.
Act DC	0.71 (0.43-1.12)	0.031	0.71 (0.33-1.19)	0.042	*
MDSC	2.39 (1.62-4.06)	0.023	2.15 (1.33-4.21)	0.037	*
Act CD4	0.42 (0.33-0.87)	0.402	0.52 (0.12-1.05)	0.621	
Act CD8	0.36 (0.12-0.93)	0.052	0.45 (0.23-0.78)	0.059	.
Tcm CD4	0.57 (0.32-1.12)	0.701	0.45 (0.11-1.32)	0.881	
Tcm CD8	0.31 (0.09-0.82)	0.023	0.52 (0.24-0.96)	0.036	*
Th1	0.65 (0.12-0.78)	0.041	0.66 (0.32-0.87)	0.068	.
Th2	0.62 (0.31-1.15)	0.458	0.69 (0.23-1.48)	0.651	
Th17	2.35 (1.16-3.66)	0.057	2.64 (1.02-3.69)	0.066	.
Tgd	0.56 (0.33-1.05)	0.552	0.44 (0.15-1.26)	0.651	
Tfh	0.61 (0.12-1.45)	0.991	0.75 (0.41-1.69)	0.875	
Act B	0.66 (0.28-1.15)	0.899	0.67 (0.24-1.56)	0.901	
Imm B	0.65 (0.23-1.31)	0.657	0.46 (0.30-1.67)	0.664	
Mem B	1.47 (1.01-3.99)	0.356	1.12 (0.93-3.68)	0.401	
Mac	2.57 (1.17-5.58)	0.097	2.01 (1.68-4.69)	0.125	
Mast	1.97 (1.05-3.59)	0.039	2.14 (0.89-3.70)	0.114	
Mon	0.64 (0.43-1.35)	0.879	0.45 (0.10-1.24)	0.993	
pDC	1.15 (0.67-2.01)	0.705	1.41 (0.45-2.96)	0.781	
iDC	0.77 (0.36-1.09)	0.845	0.46 (0.12-1.15)	0.658	
mDC	0.57 (0.24-1.06)	0.997	0.47 (0.22-1.01)	0.778	
NKT	0.54 (0.12-0.93)	0.652	0.61 (0.30-1.16)	0.933	
Eos	0.51 (0.23-1.28)	0.678	0.64 (0.11-1.34)	0.752	
Neu	0.78 (0.52-1.16)	0.999	0.98 (0.23-1.36)	0.999	
NK CD56dim	0.66 (0.35-0.98)	0.773	0.46 (0.22-1.19)	0.801	
NK CD56bright	0.55 (0.41-1.25)	0.871	0.75 (0.43-1.39)	0.923	
MSI status (MSI-H vs. MSS)	0.85 (0.49-1.98)	0.821			
Mutation rate (Hypermutated vs. Non-hypermutated)	0.94 (0.46-1.86)	0.835			
Methylation subtype (CIMP-H vs. CIMP-L/CIMPneg)	1.28 (0.94-3.68)	0.635			
Tumor site (Right vs. Left colon)	0.58 (0.32-1.06)	0.547			

\* including molecular phenotypes (MSI, mutation Rate, methylation subtype, tumor site) as binary covariates

† p&lt;0.001 ... \*\*\*, 0.001≤p&lt;0.01 ... \*\*, 0.01≤p&lt;0.05 ... \*, 0.05≤p&lt;0.1 ... .

**Table S4:** List of predicted neo-antigens

Peptide sequence(s)	# Patients	Chromosome:StartPosition	Genes				
TEYKLVVVGAV	28	12:25398284	KRAS	WSLGRSFLPL	8	16:2059622	ZNF598
QASPALSL	19	11:117789313	TMPRSS13	VTSATWTM	8	16:2059622	ZNF598
TQLARFFPPI	19	17:56435161--17:56435252	RNF43	YLLDGLVRL	8	19:17837512	MAP1S
SPAQASPAL	16	11:117789313--11:117789312	TMPRSS13	CSMRNNMISTL	8	16:2059622	ZNF598
AQASPALASL	16	11:117789313	TMPRSS13	TSATWTMMSCL	8	16:2059622	ZNF598
RFFPITPPV	15	17:56435161--17:56435252	RNF43	AAEFPGSEL	8	19:1065018	ABCA7
GADGVGKSL	14	1:115258747--12:25398284	KRAS--NRAS	VRTSMLTL	8	1:204228411	PLEKHA6
MQLCTQLARFF	14	17:56435252--17:56435161	RNF43	WLPPPMFL	8	8:120220776	MAL2
FVAEEFPGSEL	13	19:1065018	ABCAT	KYLKIKHILL	8	5:112175626--5:112175596--5:112175572--5:112175606	APC
ARFFPITPPV	13	17:56435161--17:56435252	RNF43	RQLCDLRLF	8	3:178916876	PIK3CA
FFDETROL	13	3:178916876	PIK3CA	ARHGGWTTKM	8	3:178952085	PIK3CA
WRFCSGVL	13	8:120220776	MAL2	VAAEFPGSEL	8	19:1065018	ABCA7
WLPPPMFLYL	13	8:120220776	MAL2	FPALACSL	8	2:36825137	FEZ2
MQLCTQLARF	12	17:56435252--17:56435161	RNF43	MMSWMPPL, SIMMSWMPPL	8	1:204228411	PLEKHA6
RRQPCAHGLWL, RRQPCAHGL	11	19:39330958--19:39330959	HNRNPL	FPITPPVWHIL	8	17:56435161	RNF43
WRFCSGVLSGF	11	8:120220776	MAL2	QARA&VHLPEL	8	2:239050033	KLHL30
ARAVHLPPEL	11	2:239050033	KLHL30	RAEWPGLAL	8	16:2059622	ZNF598
YLYYYKDGSC	11	8:120220776	MAL2	SSAWRFCGVL	8	8:120220776	MAL2
QLARFFPI	11	17:56435161	RNF43	WRTSAMPSAM	8	1:204228411	PLEKHA6
RRLGFLATAW	11	10:17659131	PTPLA	QASPAQASPAL	8	11:117789313	TMPRSS13
LTTTSLSP	11	5:140215022	PCDHAT	VVVGAVGVGK, VVGA&VGVK	8	12:25398284	KRAS
FLATAWLT	10	10:17659131	PTPLA	FFPITPPV	8	17:56435161	RNF43
LTTTSSL	10	5:140215022	PCDHAT	RMLQCTQLARF	7	17:56435161	RNF43
ARAVHLPPEL	10	2:239050033	KLHL30	VRTSMLTLLP, VRTSMLTLL	7	1:204228411	PLEKHA6
FFDETROLQCDL	10	3:178916876	PIK3CA	HPHHHQAGPV, GPVA&QHLHV,	7	13:21562948	LATS2
SEITKQEKFDFL	10	3:178936091	PIK3CA	HPHHHQAGPV, GPVA&QHLHV	7	13:21562948	LATS2
SRROPCAHGL	10	19:39330959--19:39330958	HNRNPL	GRNSFEVHV	7	17:577120	TP53
MRRNMISTL, MRRNMISTLQM	9	16:2059622	ZNF598	EEFFDETRQL	7	3:178916876	PIK3CA
IMMSWMPPPL	9	1:204228411	PLEKHA6	RAHRVQLL	7	18:3452223	TGIF1
YVDPGGDHF	9	18:48591919	SMAD4	ALPPPPPPV	7	10:105110740	PCGF6
YYKDGSC	9	8:120220776	MAL2	RAVHLPEL	7	2:239050033	KLHL30
WRPILTITL	9	17:57757539	TP53	MRGSELPLVL	7	18:5687507	GRP
KIGDFGLATEK	9	7:140453136	BRAF	YELSSTSV	7	13:21562832	LATS2
FTPLSAHPVPV	9	1:204228411	PLEKHA6	LTSAPSAAQSQL	7	3:114058003	ZBTB20
SPAQASPALA	9	11:117789313	TMPRSS13	SMRRNMISTL	7	16:2059622	ZNF598
TRAPSSAWRF	9	8:120220776	MAL2	SELREAHGGRL, AEFPGSEL	7	19:1065018	ABCAT
LLGRNFSFEVHV	9	17:577120	TP53	HAQCPSVPL	7	8:145625525	CPSF1
FWLPPPMFL, FWLPPPMFLYL	9	8:120220776	MAL2	RTSMLTLLPM	7	1:204228411	PLEKHA6
SAMPSAMGV	9	1:204228411	PLEKHA6	ASDAYPSAF	7	1:29138975	OPRD1
KRRGGPPSPPL	9	17:56435161	RNF43	CRVTPMTRRTV	7	16:2059622	ZNF598
VRHDPOARAV	9	2:239050033	KLHL30	RRNMISTLQM, RRNMISTL	7	16:2059622	ZNF598
RAVHLPELLS	9	2:239050033	KLHL30	ITPPVWHIL	7	17:56435252--17:56435161	RNF43
VVGADGVGK	8	1:115258747--12:25398284	KRAS--NRAS				

MMWSWMPPLA, IMMSWMPPLA	7	1:204228411	PLEKHA6
SRLLCSRPL	7	7:128587374	IRF5
SRPLCSRPL	7	7:128587381--7:128587374--	IRF5
TRCATAAL	7	7:128587374--7:128587381	ZNF598
MRATGPPPSL	7	19:39330959	HNRNPL
YELSSTSVQWQ	7	13:21562832	LATS2
SMLTLLPM	7	1:204228411	PLEKHA6
TMMSCLSTCAA, MMSCCLSTCAA	7	16:2059622	ZNF598
ARSCARWSL, ARWSLGRSFL	7	16:2059622	ZNF598
ARAPTAVPAF	7	1:204228411	PLEKHA6
NQRPLTIITL	7	17:57757538	TP53
MAPTPPSTPM	7	1:204228411	PLEKHA6
VASAWLTVL, AVASAWLTV,	7	1:228504670	OBSCN
VASAWLTV	7	1:228504670	OBSCN
SPAQASPALAS	7	11:117789313	TMPRSS13
MAPEITLWL	7	22:20130522--22:20130515	ZDHHC8
ARAEWPGL, ARAEWPGL	7	16:2059622	ZNF598
LARFFPITPPV	7	17:56435161	RNF43
VVAVATWR, CVVAVATWR	7	19:49611319	SNRNP70
FLATAWLT	7	10:17659131	PTPLA
RRHQLPHDAL	7	7:42005678	GLI3
SAMPSAMGV	7	1:204228411	PLEKHA6
RRAAHSRV	7	18:3452223	TGIF1
REEFFDETRQL	7	3:178916876	PIK3CA
SRPTGRPATV	7	16:2059622	ZNF598
SALARPVSAAL	6	7:75677504	MDH2
HRRAAHRSV	6	18:3452223	TGIF1
WVRHDPOARAV	6	2:239050033	KLHL30
MAPTPPSTPMI	6	1:204228411	PLEKHA6
SQSIMMSW	6	1:204228411	PLEKHA6
RRRRRCPGGRV	6	17:3627473	GSG2
LLAPATEHSSL	6	17:22350412	KIF19
KRRRLGFL	6	10:17659149--10:17659131--10:17659131	PTPLA
		5:112175766--5:112175756--5:112175752--5:112175770--5:112175761	
LQMDFLVHPA	6	5:112175752--5:112175772--	APC
SAHFPVPL	6	1:204228411	PLEKHA6
TTRCATAAL	6	16:2059622	ZNF598
CLLDLDTAGK	6	1:115256530	NRAS
SELPLVLLAL	6	18:56887507	GRP
TRFLTVPV	6	7:139167934	KLRG2
SATQASMTL	6	22:20130515--22:20130522	ZDHHC8

CTQLARFFPI	6	17:56435161	RNF43
ARWSLGRSFL	6	16:2059622	ZNF598
MRAGGCCHAL	6	10:46999601	GPRIN2
LRPGHLHLL	6	8:145625525	CPSF1
RELYDRGPPPL	6	19:49850473	TEAD2
QRPILTIITL	6	17:5775738	TP53
FAVILGTMVM	6	1:150530506--1:150529443	ADAMTSL4
RRGIDPRLKTF, LRRGDPRLKTF	6	1:204228411	PLEKHA6
MENSHPTTTT, MENSHPTT	6	12:12242658	SETD1B
TSMLTLLPM	6	1:204228411	PLEKHA6
AAAGAVFL	6	10:1906150	TYSND1
HVAHAAAAL, VAHAAAAL	6	2:43452444--2:43452439--	ZFP36L2
APATEHSSL	6	17:2350412	KIF19
TEHSSL, TEHSSLHLS	6	17:2350412	KIF19
LFHPWTDDM	6	2:171572940	SP5
AALPPPPPPV	6	10:105110740	PCGF6
RAPEVPRCAM	6	22:20130515--22:20130522	ZDHHC8
FTPLSAHPV	6	1:204228411	PLEKHA6
SSYRVALV	6	21:37507501	CBR3
SEITKQEKFDF	6	3:178936091	PIK3CA
STQPHVPPSTL	6	17:17119709	FLCN
ALARPSAAL	6	7:75677504	MDH2
ARPGPWRTSAM	6	1:204228411	PLEKHA6
RRHAQCPSPVPL	6	8:145625525	CPSF1
GSMSSAAV	6	16:2059622	ZNF598
FAALANAL	6	19:1004896	GRIN3B
RTSAMPASAM	6	1:204228411	PLEKHA6
VLSGCHLAV	6	1:204226546--1:204228411--	PLEKHA6
AMPSAMGV	6	1:204228411	PLEKHA6
SRLFPWTDDM	6	2:171572940	SP5
AEFPGSELREA	6	19:1065018	ABCAT
GRRASVPCRPM, RRASVPCRPM,	6	1:204228411	PLEKHA6
TRQECGRASV	6	1:204228411	PLEKHA6
TRHHHPAHHF	6	X:54209387	FAM120C
RTLACVCAL	6	19:17837425	MAP1S
SSAWRFCGV	6	8:120220776	MAL2
RSCVVAVATWR	6	19:49611319	SNRNP70
DTAGKEEY	5	1:115256530--12:25380277	KRAS--NRAS
GRSAVGDPEL	5	17:40706906	HSD17B1
CRRKVRLR	5	19:47878858	DHX34

HAAAALLL, VAHAAAALL, HAAAALLLFGI, VAHAAAALL	5	2:43452464--2:43452244-- 2:43452439--2:43452342	ZFP36L2	LSAPCPAQVL, SAPCPAQVLL, LSAPCPAQVLL, SAPCPAQV, FAALANAL	5	19:1004896	GRIN3B
NQRPILT	5	17:7577538 5:112175596--5:112175606--	TP53	SRPLCSRLL, SRPLCSRL LVVVVGASGVKG	5	7:128587374 5:12:25398285	IRF5 KRAS
KIKHLLLK	5	5:112175553--5:112175605-- 5:112175594	APC	SMSSAAV	5	16:2059622 2:43452464--2:43452244--	ZNF598
ATAGAPPALM	5	7:100285170	GIGYF1	RRGRRRTSALA, RRGRRTLS	5	2:43452439--2:43452342	ZFP36L2
SQAPPGSQSI	5	1:204228411	PLEKH6	SRMAHPRL	5	22:31485922	SMTN
MTSLSASTSL	5	17:17119709	FLCN	LARPVSAA	5	7:75677504	MDH2
		2:43452532--2:43452244--		LAAAGAVFL	5	10:71906150	TYSND1
LQLPAAAPPV	5	2:43452464--2:43452342-- 2:43452439	ZFP36L2	RVTPTMRTTV	5	16:2059622 2:43452464--2:43452244--	ZNF598
KPSEKYLKI	5	5:112175605--5:112175572-- 5:112175606--5:112175626	APC	RVLLSCARGPL, LLSCARGPL	5	10:135186806 5:120220776	ECHS1
VLFPGCTPPAY	5	19:17837512	MAP1S	LPPPMFLY	5	10:17659149	MAL2
VRLWRLRGGAL	5	16:705360	WDR90	KRRRLGVL	5	5:21485922	PTPLA
AMAPETTLWL	5	22:20130515--22:20130522	ZDHHC8	FAVLGTMV	5	1:150530506--1:150529443	ADAMTSL4
CEICVKNTAI, CEICVKNTAIL	5	18:34205516	FHD3	TSATWTMM	5	16:2059622	ZNF598
RTTTATMPTCV	5	16:2059622	ZNF598	LRALREMVSNM	5	13:46288145	SPERT
KTFGVPLGLS	5	1:204228411	PLEKH6	YPSAFPSA, YPSAFPSAGA	5	1:29138975	OPRD1
YMCNSCMGSM	5	17:7577548	TP53	TPMTRT	5	16:2059622	ZNF598
MTACSIARL	5	22:20130522--22:20130515	ZDHHC8	RARTARSAL	5	18:34205516	FHD3
QLCDLRLFQPFF	5	3:178916876	PIK3CA	GMWGGCCWW	5	8:145689659	CYHR1
SPVRRRRC	5	17:3627473	GSG2	AEDEAGRSVA	5	17:40706906	HSD17B1
LSAHPVPVL, LSAHPVPV	5	1:204228411	PLEKH6	VTSATWTMM	5	16:2059622	ZNF598
LMAPVGSV	5	17:48433967	XYLT2	LLMNLATADL, LLMNLATADLL	5	19:17000632	F2RL3
CAMDSLRPV	5	12:121432118--12:121432115	HNF1A	IRSEGDDQLL	5	19:51843808	VSIG10L
QMDFLVHPA	5	5:112175766--5:112175761-- 5:112175772--5:112175752	APC	TRLMAPVG SVM	5	17:48433967	XYLT2
SAWLTVLGL	5	1:228504670	OBSCN	KQAGPVAHQ	5	13:21562948	LATS2
		5:112175351--5:112175484--		CRRGRRL, CRRGRRL	5	2:43452342--2:43452439-- 2:43452244--2:43452464	ZFP36L2
LPAPFRVNHA	5	5:112175346--5:112175350-- 5:112175424	APC	ARWSTSFCL, LRARWSTSFCL	5	22:31485922	SMTN
TAFWRSLL	5	19:51015404	ASPDH	STRDPLSEITK	5	3:178936091	PIK3CA
VERCPWKIGCW	5	10:29760116	SVIL	LANPVLPEV	5	19:45867259	ERCC2
MRGSELPLVLL	5	18:56887507	GRP	MNWRPILTI	5	17:7577539	TP53
CRDAVASAWL	5	1:228504670	OBSCN	RESRFWLA, RESRFWL	5	18:34205516	FHD3
VLAAGAV, VLAAGAVFL	5	10:71906150	TYSND1	RLMAPVG SVM, LMAPVG SVM	5	17:48433967	XYLT2
TMMSCLSTCA	5	16:2059622	ZNF598	RAPSASWR	5	8:120220776	MAL2
STSGRSTF	5	16:2059622	ZNF598	HVAHAAALL, HAAALLLF	5	2:43452342--2:43452439-- 2:43452491--2:43452464	ZFP36L2
TRQLCDLRL, TRQLCDLRLF	5	3:178916876	PIK3CA	HVAHAAALL	5	2:43452439--2:43452342--	ERCC2
PRAHRVQL, FRGPHPRAHRV,	5	18:3452223	TGIF1	HSSATQASMTL	5	22:20130522--22:20130515	ZDHHC8
FRGPHPRAH				HLANPVLPEV	5	19:45867259	ERCC2
AATTRCATAA	5	16:2059622	ZNF598	ALLALLAA, ALLALLA, ALLALLL, ALLALLALLA	5	1:85039999	CTBS
				RAPQPPGLAV	5	2:43452439--2:43452342-- 2:43452464--2:43452244	ZFP36L2

HPRAHRVQL, HPRAHRVQLL	5	18:3452223	TGIF1		WVRPDRRL	4	22:38477342	SLC16A8
CAMAPETTLWL	5	22:20130515--22:20130522	ZDHHC8		MFLYLYKK, PMFLYLYYYK	4	8:120220776	MAL2
SPRRAGPTAL	5	1:155178782	MTX1		MQDPPLSLWTL	4	3:168833257	MECOM
APATEHSSL	5	17:72350412	KIF19		SYLEDVRLI, VRLIJHRDL	4	17:37881332	ERBB2
FLATAWLT	5	10:17659131	PTPLA		TRPRLLPL, RLLPLTRPRLL,	4	5:137803132	EGR1
RAPCRPPPV	5	18:34205516	FHOD3		TRPRLLPLI			
LAAAGAVF	5	10:71906150	TYSND1		RRWATWLSLAL, SRRWATWL	4	10:124895627	HMX3
SPRLESPRAPA	5	1:41976328	HIVEP3		SRRWATWLSL, SRSRWRATWL			
MRMKKWL, MRMKKWLPLM	5	7:100283942--7:100285170	GIGYF1		RAAQPDSPSEV	4	2:43452491--2:43452464--	ZFP36L2
RESRFWL, RESRFWLAL	5	18:34205516	FHOD3		LTIQNAAFL, YQDTSLSMMIVL	4	2:43452439	
FEVHVCACPG	5	17:7577120	TP53		RTWPGIACRV	4	13:20638677	ZMYM2
SSYSRVAL	5	21:37507501	CBR3		RPSTREFLV, SPRPSTRFLTV	4	16:20597934	ZNFS98
FSIRRWSTI	5	7:150698398	NOS3		RRQPPTTSF	4	7:139167934	KLRG2
HRAAPSALGAL, HRAAPSAL	5	6:18122506	NHLRC1		CWAPGSPSRL	4	16:30736370	SRCP
TMATPTPPSTM	5	1:204228411	PLEKHA6		RAAHSPVSPR	4	22:20130522--22:20130515	ZDHHC8
MLSALARPV	5	7:75677504	MDH2		YTF1, TGF1	4	18:3452223	
YITEADSKKEY	5	14:32561296	ARHGAP5		MENSHPPIT, MENSHPPITT	4	12:12224658	SETD1B
GPRMQLCTQL	5	17:56435161	RNF43		LPTPPPLPLL	4	1:10972735	CELSR2
KEYEYSAMRDQY	4	12:25380277--1:115256530	KRAS--NRAS		IPEMDFEPSPA	4	2:39187190	ARHGEF33
LLDILDIDTAGL	4	12:25380276--1:115256529	KRAS--NRAS		AEWPLGL	4	16:2059622	ZNFS98
ILDTAGKEEY	4	12:25380277--1:115256530	KRAS--NRAS		SVHLIVLR, RVVRLPAPFR	4	5:112175350--5:112175351--	APC
SVYSGNLL	4	2:97749725--2:96078466	FAHD2B--		KYPQAAAV, LRPVRLQKY	4	5:121432115--12:121432118	HNF1A
DILDTAGKEEY,			FAHD2A				5:176026129--5:176026138--	
DTAGKEEYSAM	4	12:25380277--1:115256530	NRAS--KRAS		YTVPSPRKVDPV	4	5:176026120--5:176026138--	GPRIN1
AELQARLAAL	4	19:7747293	TRAPPC5				5:176026129	
FRVNHAVEW, LRVVRLPAPF	4	5:112175346--5:112175424--	APC		WRSLLACQCL	4	19:5015404	ASPDH
	4	5:112175351			RRERTAAWQL	4	16:50745399	NOD2
SRAASLLF	4	7:150698398	NOS3		FSSPAWPQF	4	15:40544617	C15orf56
ALAPOAWWPWA	4	3:114058003	ZBTB20		ATADLLALAL, ATADLLAL	4	19:17000632	F2RL3
LSPEPPAYSL	4	X:3631167	PRKX		SGAWTMRMKK, GAWTMRMKK	4	7:100283942--7:100285170	GIGYF1
FEVCVCACPG	4	17:7577121	TP53		YPVQRLPF	4	2:242674803	D2HGDH
GEWELCRAA	4	1:200880978	Clorf106		GTDPNLVL	4	4:17392894	ANKLE1
RQPCAHLWL	4	19:39330958--19:39330959	HNRNPL		EVVRHCPH	4	17:578406	TP53
SRSARTGRSV	4	22:20130522--22:20130515	ZDHHC8		FFPITPPVWHI	4	17:56435161	RNF43
STSGRSTFCV	4	16:2059622	ZNFS98		ALACSLEEKL	4	2:36825137	FEZ2
WEALGAPEA, WEALGAPEA	4	19:622336	POLRMT				16:88599701--16:88599696--	
ARRSCVVAV, RRSCVVAV	4	19:49611319	SNRNP70		APQNNGSSE	4	16:88599703--16:88599703--	ZFPM1
VRAPQPPGL, VRAPQPPGLAV,	4	2:43452244--2:43452464--	ZFP36L2				16:88599696--16:88599701	
AAAPPVRLARV, RRAPQPPGL	4	2:43452342--2:43452439			EPSAEPL	4	2:39187190	ARHGEF33
RWPPRTPL, RWPPRTPLFPL,	4	5:137803132	EGR1		FFDETRQLC	4	3:178916876	PIK3CA
RRWPPRTPL, RWPPRTPLF,					GSELPVLIAL, GSELPVLV	4	18:56887507	GRP
RRWPPRTPLF					WLWAGWTV	4	14:20846338	TEP1
QSIMMSWMPPPL	4	1:204228411	PLEKHA6		MSSYSRVALV, MSSYSRVAL	4	21:37507501	CBR3

PRLLLHLHL	4	17:70119909--17:70120314--	SOX9	RMTSLSASTSL	4	17:17119709	FLCN
LCRPLTAPL, ARDLRCPL	4	17:70120194--17:70120345	HNF1A	TSSPRRSALPR, TTTSSPR	4	12:122242658	SETD1B
TRKQTKVLWPL, LRPPPLSL,	4	12:121432115--12:121432118		EPAPAPATY	4	16:84224967	ADAD2
TRKQTKVL	4	5:137803132	EGR1	SRPPVTQRL	4	2:70315174	PCBP1
PRAHRVQL	4	18:3452223	TGIF1	ERYPVQLPF, TRERYPVQRL,	4	2:242674803	D2HGDH
RPTGRRPATV	4	16:2059622	ZNF598	QRLPFSVL, ERYPVQRL			
HPHRRHLWGPF	4	17:70120345--17:70120194--	SOX9	LARLVAATPAL	4	22:20130515--22:20130522	ZDHHC8
	4	17:70120314--17:70119909		ARRESRFWL, SRMPARRESRF	4	18:34205516	FHOD3
SRPRTSAASL	4	5:137803132	EGR1	NPVLPNEV, LPNEVLQEAV	4	19:45867259	ERCC2
GRIHRLAL	4	19:6737481	GPR108	APANPEPSA	4	1:41976328	HIVEP3
MRRPRAGPLGL	4	22:19968971	ARVCF	YLWPSRTL	4	14:98788534	FOXN3
ARLVATPAL	4	22:20130515--22:20130522	ZDHHC8	LMVEAVAMM	4	X:135956575--X:135956571	RBMX
SMQDPPLSL	4	3:168833257	MECOM	KVHLNTMFR, KVHLNTMFRR,	4	5:112175346--5:112175351--	APC
LTSPRPLTL	4	12:58025103	B4GALNT1	KVVLRHPK	4	5:112175350	
HTSTVHCM	4	4:153249384	FBXW7	RELLLVGRY, GERELELLVGRY	4	17:18918510--17:18918511	SLCSA10
RSLELGAAFP, MRRSLELGAAF	4	19:33167455	RGS9BP	LRGPPRKL	4	16:15802687	MYH11
APFRVNHAV	4	5:112175350--5:112175346--	APC	SSRQHRSALM, HRSALMTF,			
	4	5:112175484--5:112175351		SRQHRSALMTF, HRSALMTFL,	4	16:50745399	NOD2
HRVRPRACM	4	16:50745399	NOD2	SRQHRSAL			
CARWSLGRSF	4	16:2059622	ZNF598	LRARGGTII	4	12:122242658	SETD1B
RRPWNSFTSL, VRRPWNSFTSL	4	16:50745399	NOD2	ARTARSAL, VRARTARSAL	4	18:34205516	FHOD3
MTACSIARLV	4	22:20130515--22:20130522	ZDHHC8	IRSEGQQLLI, IRSEGQQLLIV	4	19:51843808	VSIG10L
CAMAPETTL	4	22:20130515--22:20130522	ZDHHC8	VRQQQLRL	4	2:43452439--2:43452342--	ZFP36L2
MNWRPILTI	4	17:7577539	TP53	SLAALQLPA, QLPAAPPV,	4	2:43452244--2:43452532--	ZFP36L2
RSRSWTSK	4	7:100283942--7:100285170	GIGYF1	ALQLPAAAAPPV, SLAALQLPA	4	2:43452464--2:43452342	ZFP36L2
ATFFSSVPLV, FSSVPLVASI	4	1:22191454	HSPG2	CTACVERCPWK	4	10:29760116	SVIL
RPHSCLADV, RPHSCLADVL	4	5:112175351--5:112175346--	APC	QAWWPARRGPL	4	3:114058003	ZBTB20
QRASRMRWWM,				AAAPPVRL	4	2:43452464--2:43452439--	ZFP36L2
MRAQRASRM,				NQRPIILTII	4	2:43452342	
SRMRRWWMNAA,				LLFLGLRGL, LLRLRLFL,	4	17:577538	TP53
SRMRRWWM				LLRLRLFLGL, FLGLRGLHAL	4	2:43452244--2:43452532--	ZFP36L2
SELPVLALLV, SELPLVLL,				RESRFWLALQA	4	18:34205516	FHOD3
SELPVLILLA				APAPAQPSTAT, APAQPSAT	4	9:124855211	TTL11
RAAPSALGAL	4	16:18122506	NHLRC1	SPVRRRRRCPG	4	17:3627473	GSG2
VVRHCPHER	4	17:7578406	TP53	RRGRRRL	4	2:43452464--2:43452244--	ZFP36L2
FPSAGANA	4	1:29138975	OPRD1	AEATNGEARAA	4	16:88599696	ZFPM1
SAYLGRTL, SAYLGRTLLV,				FEPSPAEPL, MDFEPSPAEPL	4	2:39181790	ARHGEF33
SAYLGRTLL				SLASCASVAL, SLASCASV	4	1:150529443--1:150530506	ADAMTSL4
FANNSGFV, WAFANNSGF,				VLQMDFLV	4	5:112175752--5:112175772--	
WAFANNSGFV, FANNSGFVAEL	4	9:140008750	DPP7		4	5:112175761--5:112175766	APC
WRLRGAL	4	16:705360	WDR90				
RLMAPVGSV	4	17:48433967	XYLT2				
FVVDLLL	4	1:154304153	ATP8B2				
RLLLLLPLLW	4	19:41858921	TGFB1				
LMNLATADLL	4	19:17006032	F2RL3				
MRPLPGRIEV, MRPLPGRI	4	18:658064	C18orf56				
SPRRAGPT	4	1:155178782	MTX1				
MTEVVRHCPH	4	17:75778406	TP53				
AARAEPGLAL	4	16:2059622	ZNF598				
KEAYGRHQEI	4	14:32561296	ARHGAP5				
GMNQRPILTI	4	17:7577538	TP53				
FWLPPPMF	4	8:120220776	MAL2				
TAVPAPFTL, RAPTAVPAF	4	1:204228411	PLEKHA6				
LLPRALPSLL	4	18:34205516	FHOD3				
APFRVNHAVEW	4	5:112175493--5:112175424--	APC				
RTSMLTLL	4	5:112175351--5:112175484					
REMVSNSMSGP, REMVSNMS,							
REMVSNSMSG, KELRALREM							
GLGVEVPGV							
LSYHRLLPL, LPLWAALPL	4	1:227922918	JMJD4				
	4	2:43452491--2:43452464--	ZFP36L2				
SSATQASMTL, HSSATQASM	4	22:20130522--22:20130515	ZDHHC8				
GAVGVGKSAL	4	12:25398284	KRAS				
LEQMLHSCR	4	X:56591874	UBQLN2				
LWDVLLSRELF	4	1:15850613	CASP9				
VRSTVCAMDSL, VRSTVCAM,							
LRPVRLQKY							
FPPPRSPC, FPPPRSPCPPA	4	8:120220776	MAL2				
KLVVVGAAGV	4	12:25398284	KRAS				
RSFPAASPSGL	4	20:23066469	CD93				
TPMTRRTVTG, WPGIACRVTPM,							
MTRRTVGRSA, TPMTRRTVG	4	16:2059622	ZNF598				
ATEHSSL	4	17:72350412	KIF19				
KRNTGTLGSL	4	11:8751889	ST5				
WATWLAL, RSRRWATWLSL,							
RSRRWATWL	4	10:124895627	HMX3				
CMGGMNWR	4	17:7577539	TP53				
SLPTRLPRLL, LRPPPLSL,	4	5:137803132	EGR1				
RLLPLTRPRLL							
ALRARGGTII, SPRRSPAL	4	12:122242658	SETD1B				
GPHPRAHRVQL	4	18:3452223	TGIF1				
RLLPLWAAL, RLLPLWAALPL	4	2:43452464--2:43452491--	ZFP36L2				
LGFLATAWLTF	4	2:43452532--2:43452342					
	4	10:17659131	PTPLA				

LMMWRTPM, LMMWRTPM, RAWRRFPPLM, MMWRPTMTRL	4	22:18300932	MICAL3				PCDHAC1, PCDHAC2, PCDHA2, PCDHA12, PCDHA5, PCDHA11, PCDHA1, PCDHA7,
RAPPVVLRL	4	1:151318741	RFX5				PCDHA6, PCDHA8, PCDHA13, PCDHA10, PCDHA9, PCDHA3,
GRYGGGGRLV, GRYGGGGLVI	4	17:18918511--17:18918510	SLC5A10				PCDHA4-- PCDHA6-- PCDHA10
RAAARAVGGRL	4	2:43452439--2:43452491--	ZFP36L2				
RLWFREAEIY	4	9:101900288	TGFBR1	FRMGLYTGEI	3	5:140209546--5:140237500--	
FRGLGVVEV	4	1:227922918	JMJD4		3	5:140188642	PCDHA6, PCDHA8, PCDHA13, PCDHA10, PCDHA9, PCDHA3,
QPPTLQPTL	4	7:128587374	IRF5				PCDHA4-- PCDHA6-- PCDHA10
YQDTSLMM, YQDTSLMMIV, RLYQDTSLMM, YQDTSLMMI, LYQDTSLMM, LYQDTSLMM	4	13:20638677	ZMYM2				
APGKRRRL	4	10:17659149	PTPLA				
GRFAVLGTMVM, AREAGRAFLV	4	1:150530506	ADAMTSL4				
SRVPSPRSW	4	18:3452223	TGIF1				
SACPAPQVL	4	19:1004896	GRIN3B	CLLDILDTAGL ILDTAGREYY SRRFKEPWFL YIFSDKMGTL	3	12:25380276--1:115256529	KRAS--NRAS
VATPALPTQQL	4	22:20130522--22:20130515	ZDHHC8		3	1:115256529--12:25380276	NRAS--KRAS
RATGPPPSL	4	19:39330959	HNRNPL		3	19:30935604--18:74154167	ZNF516-- ZNF536
EAAAATVTAAF	4	7:100285170	GIGYVF1		3	1:154313476--5:160061438	ATPB2B-- ATP10B
GTFPVNGPPR	4	1:213031948	FLVCR1				
SYSRVALV	4	21:37507501	CBR3				
FLLLLLVLV	4	20:44520238	CTSA	WRFCPQACL VVGAAGVGK, VVVAAGVGK LIHEITHTGEK	3	19:54745497--19:54725745	LILRB6, LILRB3-- LILRB3
LLLFGLVLLL, LLFGLVLLL, LLLRLLFL, LLRLRLFLGL, LLFLGLVLL, LLFLGLVLL, LLLFGLVLLL, LLFGLVLLL	4	2:43452464--2:43452244-- 2:43452532--2:43452342	ZFP36L2		3	12:25398284--1:115258747	KRAS--NRAS
GEKTEIQQLTM	4	2:203420130	BMPR2		3	19:12542084--19:12059564	ZNF443-- ZNF700
TMMSCLST, MMSCSLSTCA	4	16:2059622	ZNF598				
CTQLRARFF	4	17:56435161	RNF43				
MMIGSQHL, KMMIGSQHLL	4	3:77657038	ROBO2	KAFFCPVYY GEEYSAM GEDMVVAL, GEDMVVALV, GEDMVVALVL, EDMVVALVL	3	19:12384448--19:12502590	ZNF44--ZNF799
SARRSCVVAV	4	19:49611319	SNRNP70		3	12:25380276--1:115256529	KRAS--NRAS
AARSCARWSL	4	16:2059622	ZNF598		3	17:39742887--17:39768744	KRT16--KRT14
FSLNLTPEAVL, FSLNLPEAV	4	6:166721224	PRR18		3	17:7578406	TP53
HVPPLSTLGW	4	17:17119709	FLCN	EVVRHCPHH LATEKSRW, FGULATEKSRW QEVVVHKRGL SAWRFCSGVL	3	7:140453136	BRAF
FVCENNSPAL	3	5:140604458--5:140531213-- 5:140595076	PCDHB13-- PCDHB6-- PCDHB14		3	2:148683686	ACVR2A
					3	8:120220776	MAL2
				LLGPHSLMV, YHLLGPHSL, LLGPHSLMVTI, MKNPYHLL, YHLLGPHSLM, VSMKNPYHLL, SMKNPYHLL, HLLGPHSLMV	3	10:63958149	RTKN2
					3	2:74687410	WBP1
					3	19:45867259	ERCC2
					3	17:56435161	RNF43

RLLHTAHL	3	17:70119909--17:70120194--	SOX9	CFLQCFQGGW, CFLQCFQGGWW	3	10:29760116	SVIL
RSALMTFLL, ALMTFLLASW	3	17:70120345	NOD2	KTPPTNLTL	3	5:137803132	EGR1
IRQLSSKSL	3	16:50745399	YLPM1	SPRAPANPEP, SPRAPANPEPS, APANPEPSAT	3	1:41976328	HIVEP3
IRQLSSKSL	3	14:75230947	YLPM1	QQLAAVRGVAL	3	12:111800827	FAM109A
FLFTTRGPSCA	3	19:50713713	MYH14	STWTRRDSPR	3	1:15517872	MTX1
LRPLCPQPM	3	9:135947054--9:135947065	CEL	FQMMEGKAF	3	1:124845049	CCDC15
RPTGRPATVAA	3	16:2059622	ZNF598	TFSVNNTY	3	16:88599701--16:88599696--	ZFPM1
AAPPHRLL	3	19:48197891	GLTSCR1	LAVRTSML, LAVRTSMLTL, LAVRTSMLTL	3	16:88599696--16:88599701	PLEKHA6
MALARTSV	3	15:74219546	LOXL1	LQMDFLVH	3	1:204228411	APC
ITPPVWHI, RFPITPPVVW,	3	17:56435161	RNF43	FASVNVY, YFIEKENHYW	3	5:112175756--5:112175772--	NUDT15
FPPITPPVW				WLLLLSP1, LLFEAWLL, LLFEAWLLL, LLFEAWLLLLL, LLFEAWLLL, LLFEAWLLL, LLFEAWLL	3	1:348615145	
VLHKQINK, TTVLHKQINK,	3	6:64421713	PHF3	LLFEAWLLL, LLFEAWLLLLL, LYELSTS1	3	3:77657038	ROBO2
VLHKQINK				LEADMRRSLEL	3	13:21562832	LATS2
LPTPPPPPL, LPTPPPPPL	3	1:109792735	CELSR2	MQQDSTRTV	3	19:33167455	RGS9BP
SSATQASM	3	22:20130522--22:20130515	ZDHHC8	REEYSAMRDQY	3	2:295537572	TEKT4
GLDDRSQAPL	3	X:129190011	BCORL1	SVTSATWTM, SSVTSATWTM	3	1:115256529	NRAS
RPQLRRWL, RPQLRRWL	3	1:85040070	CTBS	KTYGARGV	3	16:2059622	ZNF598
MMIGSQHLL, LLFEAWLLLLL,				TAMPQMLQQL	3	18:56246440	ALPK2
LLFEAWLLL, LLFEAWLLL,				LQDTHGWKSEL	3	17:40937417--17:40939870	WNK4
LLFEAWLL	3	3:77657038	ROBO2	LSAQTTAL	3	2:295537622	TEKT4
GLMAADRAWGL,				LAFNVPGGVWL	3	2:71206267	ANKRDS53
MAAADRAWGL, MAAADRAWGL,	3	7:128852004	SMO	YHRWIVTSM, LYHRWIVTSM,	3	14:20846338	TEPI
LMAADRAWGL, AADRAWGLF				HRWIVTSM	3	3:10890939	LARP4B
FRSSHFPCEY	3	1:223177026	DISP1	YPVQRLPSTV	3	17:7577538	TP53
WLFTGGSV	3	20:60887581	LAMA5	WRSTQPLH	3	2:242674803	D2HGDH
SSTPAAGSSL	3	18:3456550--18:3457371--	TGIF1	ILVPFFHL, ILVPFFHLYL	3	17:17119709	FLCN
WMRPPRSLL	3	18:3456572	MICAL3	RRLGFPLATAW	3	8:113241029	CSMD3
HRLPLWAAL, SYHRLPL	3	22:18300932	ZFP36L2	MALLSEGDEL	3	10:17659131	PTPLA
SLLSFSIRR, RAASLLFSIR,	3	2:43452439--2:43452342--		TTTSPSPR, TTTSPPR	3	12:37555116	FAM83D
RAASLLFSIRR, AASLLFSIRR	3	2:43452464		ITDFGHSEI, ITDFGHSEI	3	12:122242658	SETD1B
SFHPLVATQAL	3	7:150698398	NOS3	HRIHEITHL, SYSATHRIHEI	3	22:29091840	CHEK2
RVMVPLV	3	1:228559450	OBSCN	FLRSRSWTSK, KGWRRRRNLPK	3	19:11978669	ZNF439
KQTKVLWPL	3	3:3067806	CNTN4	RDAVASAWL	3	7:100285170--7:100283942	GIGYF1
CLAHTQFLR, LAHTQFLRAL	3	5:137803132	EGR1	WTAATLRCPAV	3	1:228504670	OBSCN
YLQQLDDIFI, FINKGLHL,	3	17:80400208--17:80400298	HEXDC	RTLACVCCALL	3	3:51417604	DOCK3
YLVPFFHLYL, YLQQLDFI,	3	8:113241029	CSMD3	LEIRQLSSKSL	3	19:17837425	MAP1S
YLQQLDDIFI				FPGSELREA	3	14:75230947	YLPM1
RLLPLWAA	3	2:43452342--2:43452532--	ZFP36L2		3	19:1065018	ABCA7
FWLPPPMFLY	3	2:43452464					
NEVLQEAV	3	8:120220776	MAL2				
EAFFAFSSL, EAFFAFSSL	3	19:45867259	ERCC2				
	3	12:51392999	SLC11A2				

RPACTCISM	3	17:48433967	XYLT2	TMNDSKHK, LTMNDSKHK,	3	2:203420130	BMPR2
RERTAAWQL	3	16:50745399	NOD2	KLESPALK	3	10:1094906	IDI1
LVASISAVSL_SSVPLVASI	3	1:22191454	HSPG2	YAARGRGQWAV	3	16:30736370	SRCP
ILARLVPAL, ILARLVATPA	3	22:20130522--22:20130515	ZDHHC8	TSPPFLSGL	3	7:91732038	AKAP9
GRSSRQPRL	3	10:124895627	HMX3	SSHRCFCFHQY	3	1:6614391	NOL9
LPHALLAPSL	3	1:228559450	OBSCN	WRLLQQAAGV	3	1:204228411	PLEKHA6
TSSPRRSPAL	3	12:122242658	SETD1B	LAGSLSTM, FGVPLGSILCL	3	10:63958149	RTKN2
MPSAMGVAL	3	1:204228411	PLEKHA6	YMMKKGRDKL, KLPFLILLI,	3	10:100186987	HPS1
APSGHEGILAL	3	11:76751542	B3GNT6	KRDKLPLFLL, KRDKLPLFLL,	3	13:111368164	ING1
RTSLAALQL	3	2:43452439--2:43452464	ZFP36L2	LEGGTPPPMPF, LEGGTPPPWM,	3	22:38483198--22:38483204--	BAIAP2L2
NWRPILTI	3	17:7577539	TP53	LEGGTPPW	3	22:38483174	TCF7L2
GRTPTTRL_TRLMAPVGSV	3	17:48433967	XYLT2	WRVSPRPLSL, WRVSPRPL	3	10:114900984	ZNF837
LQMIWAFY	3	1:35972480	KIAA0319L	HVHPSRLL	3	19:58879976	C19orf26
LRQARRGPGL	3	3:183951135	VWA5B2	QQTGKSPPPV	3	19:1231142	FRRRLVSTL, RRLVSTLNF,
APPSTRMMAT, APPSTRMM,	3	2:227661664	IRS1	KFFFRRRLVSTL, KFFFRRRLVSTL,	3	10:94243045	IDE
APPSTRMMA	3	17:7577036--17:7577065--	TP53	KFFFRRRLV, FRRRLVSTLNF,	3	7:128587374	IRF5
SPFRSGVG, SPFRSGVGSA	3	17:7576881		RPLCSRLL	3	1:228504670	OBSCN
EPISFIG, TPPGGAAFPI	3	1:154942910	SHC1	AVASAHLTVL	3	4:24801315	SOD3
STPPGGAFAF, FPISFIGA	3	3:183951135	VWA5B2	RRDDDDGTI	3	6:151673000	AKAP12
CPLCSPRWL	3	2:46987060	SOCS5	TRWKPLQTVRL, TRWKPLQTV	3	22:20130515--22:20130522	ZDHHC8
LCMFPEPLLTI	3	18:48591919	SMAD4	FLPPMHCPTA	3	1:200880978	C1orf106
YVDPSGGDH	3	12:53207602	KRT4	GEWELCRA	3	11:1858572	SYT8
RHWLWWWIW,	3	16:2059622	ZNF598	RPIAQWHPL	3	2:27248517	MAPRE3
RHWLWWW	3	17:70120194--17:70120345--	SOX9	MAAMRLMPKF,	3	19:54974318	LENG9
AEWPLGLALA	3	17:70119909		MAAMRLMPKF, FRFRGRLV, VRFFRGRGLRV,	3	4:62910205	LPHN3
HPADPQPPA, HPADPQPPAL	3	3:10124895627	HMX3	FFRFRGRLV, FRFRGRLVW,	3	22:38483155	BAIAP2L2
LSRRLRGL	3	10:91497569	KIF20B	RMWNDTIVQK	3	17:10258071	MYH13
KLMHTKIDKLR	3	20:23066469	CD93	MSPMTPMTPM, SSMSPMTPMTPM	3	19:44778796--19:44778797	ZNF233
RASPSAVCL	3	18:12699829	CEP76	STNPFNPF, ISTNPFNPF, STNPFNPFV	3	8:120220776	MAL2
NVFVLNLHV, FVLNLHFV, VVYIETNVFV, LLVYIETNV, VLNLHFV, YIETNVFV, FVLNLHFV, YIETNVFV	3	1:156814343--1:156814053	INSRR	STFCDFVFWL, KLIRFLCF, FYKLIRFLCF	3	1:228559450	OBSCN
TVHCMHLHEK	3	17:70120314--17:70120194--	SOX9	LYYKDGSC	3	6:13206135	PHACTR1
MAVLPELL	3	11:107992346	ECHS1	RAPSIFHPL, RAPSSHPLV	3	3:13:46288145	SGSM2
KTSTIALF	3	8:25154087	DOCK5	RVWPSTTTL, VWWPSTTTL	3	17:2266799	FHOD3
CSRLCSR	3	7:128587374	IRF5	KLAACARECV	3	18:34205516	ERII
RRETEPCMILL, ARRETEPCMILL	3	17:3627473	GSG2	SALPQGRAPL	3	20:23618427	YLF1
RRRRCPGGRV	3	19:1004896	GRIN3B	QSGAWTMRMK, SQSGAWTMRMK, SQSGAWTMRMK, GAWTMRMK	3	7:100283942--7:100285170	YLF1
ALFAALANAL	3	16:50745399	NOD2	GSELPLVLL	3	19:51843808	GRP
MTFLLASWCV	3	7:100285170	GRIGYF1	TPRIRSEGDQL	3	19:1065018	VSIG10L
SQSGAWATM	3	8:145689659	CYHR1	SELREAHG, SELREAHG	3	19:1065018	ABCAT7
YGMWGCGCWVW	3	22:25315953	SGSM1	FARRECPPEPA	3	17:79899272	MYADM12
KLFNEMAERH, KLFNEMAER				TADLLLAL, TADLLLALAL	3	19:17000632	F2RL3
				FLPHPKIALF, FLPHPKIALF	3	10:85978958	CDHR1
				MAPVG SVM	3	17:48433967	XYLT2
				GEKTEIQL	3	2:203420130	BMPR2
				LRELYDRGPP	3	19:49850473	TEAD2
				RMPARRESRF	3	18:34205516	FHOD3
				SRMRWWMNA, MRRWWMNA, MRRWWMNA	3	19:871222	MED16
				ATGSSPK	3	20:23618427	CST3
				IQDFIFFVMPML	3	5:7219545	TNP01
				WLVLVRLPEV, LLLWLVLV	3	3:66550762--3:66550756--	LRIG1
				CTYPTQKPF	3	3:66550756--3:66550762	ADAM32
				RTLACVCALLV	3	3:66550756--3:66550762	MAP1S
				ASAPTSPL	3	19:17837425	C22orf26
				FTRAERLTW, TRAERLTW	3	22:20130522	ARAP1
				KRSSQSRSPV	3	11:2408055	ARAP1
				ASRPVPTQRL	3	18:34205516	FHOD3
				YMLLLWVENL	3	2:70315174	PCBP1
				LLLRFSCMRV, WLPSLPTMALL	3	14:103593950	TNFAIP2
				RRRRHPRAAL, RRHPRAAL, RRHPRAAL	3	14:20846338	TEP1
				WPDTTHPTCL	3	8:145106939	OPLAH
				STVHCMHLHEK, STVHCMHLH,	3	19:1065018	ZDHHC8
				TVHCMHLHEK	3	4:153249384	FBXW7
				WTRRRDSPRRA	3	1:155178782	MTX1
				LLSAPCPAQVL	3	19:1004896	GRIN3B
				VPL	3	17:56448298	RNF43
				CRIIWSTV	3	17:11998898	MAP2K4
				RMQLCTQL	3	17:56435161--17:56435252	RNF43

LPWHIQIGILI, LPWHIQIGI	3	12:66622063	IRAK3	GEAVAPAL, GEAVAPALL	3	8:8860620	ERII
FSNVNNYYVH	3	16:88599701--16:88599696--	ZFPM1	RAGTRGSL	3	16:2059622	ZNF98
WLGPAVAPA, TLWLGPAV	3	16:88599696--16:88599701		LLAPPPSAPL	3	14:75230947	YLP1M1
LRLQRSLLEI, IRKQRQHL,	3	22:20130515--22:20130522	ZDHHC8	SPTCLGHPV	3	19:10202224	C19orf66
LRLQRSLL	3	10:61828580	ANK3	SQNDFFQSLL	3	21:30701851	BACH1
SRRWATWLSLA	3	10:124895627	HMX3	REMVSNMSGP, KELRALREMV,	3	13:46288145	SPERT
HLWGPFPHPA	3	17:70120314--17:70120194--	SOX9	ALREMVSNM	3	18:56887507	GRP
RVLLSCAR	3	10:135186806	ECHS1	QSGAWTMRMK, QSGAWTMRMK, QSGAWTMRMK, GAWTMRMK	3	19:51843808	VSIG10L
HRPLCQRPPTL, SRHAAHRPL	3	16:14346300	MKL2	GSELPLVLL	3	19:1065018	ABCAT7
SWTPALRTM	3	3:52551362--3:52550119	STAB1	TPRIRSEGDQL	3	19:1065018	MYADM12
ETRQLCDLR	3	3:178916876	PIK3CA	SELREAHG, SELREAHG	3	19:1065018	F2RL3
SRCCSFLPL, SRCSSFL	3	1:156814343--1:156814053	INSRR	FARRECPPEPA	3	17:79899272	CDHR1
VAPPPTPPPLL, LLLSLHPSL	3	2:204305619	RAPH1	TADLLLAL, TADLLLALAL	3	19:17000632	MAPR2
HVWSHHTL	3	3:19990281	WDR18	FLPHPKIALF, FLPHPKIALF	3	10:85978958	YLF1
ASVAPATL	3	22:20130522--22:20130515	ZDHHC8	MAPVG SVM	3	17:48433967	YLF1
VRAGNPAAVAL	3	3:139258508	RBP1	GEKTEIQL	3	2:203420130	MYADM12
NAPQLTITSL	3	5:140215022	PCDHAT7	LRELYDRGPP	3	19:49850473	FHOD3
MAHPPHYL, IMAHPPHYL	3	1:55081756	FAM151A	RMPARRESRF	3	18:34205516	ERII
FANNSGFVA	3	9:140008750	DPP7	SRMRWWMNA, MRRWWMNA, MRRWWMNA	3	19:871222	YLF1
TLWGVRMTLS	3	17:17119709	FLCN	ATGSSPK	3	20:23618427	YLF1
LPPPMFLYLY, LPPPMFLY	3	8:120220776	MAL2	IQDFIFFVMPML	3	5:7219545	TNP01
FQEEMPTGFVY	3	16:28847350--16:28847356	ATXN2L	WLVLVRLPEV, LLLWLVLV	3	3:66550762--3:66550756--	LRIG1
SRKRIVL, SRKRIVINYI	3	10:63958149	RTKN2	CTYPTQKPF	3	3:66550756--3:66550762	ADAM32
KSHHRVVF	3	18:34205516	FHOD3	RTLACVCALLV	3	3:66550756--3:66550762	MAP1S
AALANALL, AALANALLSA	3	19:1004896	GRIN3B	ASAPTSPL	3	19:17837425	C22orf26
LPAPFRVNHA, VVRLPAPFR,	3	5:112175351--5:112175346--	APC	FTRAERLTW, TRAERLTW	3	22:20130522	ARAP1
VVRLPAPF	3	5:112175350		KRSSQSRSPV	3	11:2408055	ARAP1
KRTKCFTE	3	10:89717770	PTEN	ASRPVPTQRL	3	18:34205516	FHOD3
SEGAETPRI, ASEGAETPRI	3	19:51843808	VSG10L	YMLLLWVENL	3	2:70315174	PCBP1
FMQEFYKIRL, FYKLRFLCF,	3	1:111742146	ALG9	LLLRFSCMRV, WLPSLPTMALL	3	14:103593950	TNFAIP2
KLRFLCF, KLRFLCF,				RRRRHPRAAL, RRHPRAAL, RRHPRAAL	3	14:20846338	TEP1
FYKLRFL				RRRRHPRAAL, RRHPRAAL, RRHPRAAL	3	8:145106939	OPLAH
KQMNDARHGGW	3	3:178952085	PIK3CA	WPDTTHPTCL	3	22:20130522	ZDHHC8
RMMRRQWSL	3	6:116836954	FAM26E	STVHCMHLHEK, STVHCMHLH,	3	4:153249384	FBXW7
SREERLW	3	9:101900288	TGFBR1	TVHCMHLHEK	3	1:155178782	MTX1
RTGPRTTATM	3	16:2059622	ZNF598	WTRRRDSPRRA	3	19:1004896	GRIN3B
GRNSFEVCV	3	17:7577121	TP53	LLSAPCPAQVL	3	19:1004896	RNF43
YGPPTSL	3	19:39330958	HNRNPL	VPL	3	17:56448298	RNF43
YPSAFPSAG, FPSAGANAS	3	1:29138975	OPRD1	CRIIWSTV	3	17:11998898	MAP2K4
FTLGAGPRL	3	8:144810138	FAM83H	RMQLCTQL	3	17:56435161--17:56435252	TNFAIP2
QPCAHGLW	3	19:39330959--19:39330958	HNRNPL				
RLWRAWRRPFL, RAWRRPFL,	3	22:18300932	MICAL3				
RAWRRPFL, RAWRRPFLMM	3	9:134183379	PPAPDC3				
MSPSLDDYL, YEMPSLDDY							

FFTSVPPGF, TFTTSVPPGF	3	20:30789952	PLAGL2		ARSCIQAYF	3	5:64905248	TRIM23
HLHHLLKQLK	3	5:112175596--5:112175594--	APC		RLRDEQLNSPY	3	15:102264476	TARSL2
LWRLRGAL, LWLWRGGAL	3	5:112175553			AERTLACVCAL	3	19:17837425	MAP1S
VREQLQQEQAL	3	16:705360	WDR90		RAPPACHWL	3	17:56448298	RNF43
GRYGGGGLR	3	8:145001588	PLEC		YSKDSGLL	3	15:45003781	B2M
YLSELTTEL, ISAKRNYL,	3	17:18918510--17:18918511	SLC5A10		LQMVPCSM	3	3:168833257	MECOM
ISAKRNYLSEL	3	1:39759288	MACF1		LANPVLNEVL	3	19:45867259	ERCC2
CTMPPLLH	3	17:48433967	XYLT2		HQLLTSGMELK	3	4:153245446	FBXW7
HMDCLRWLK	3	12:133250289	POLE		SPRRGSSPA	3	1:17265560	CROCC
YOTEFAQL	3	7:94539496	PPP1R9A		TPPPPLLLL, TPPPPPLLLL	3	1:109792735	CELSR2
RQACLTFRGSW	3	10:64564892	ADO		ASAWLTVL, ASAWLTVLGL,	3	1:228504670	OBSCN
AVAPALLESPR	3	8:8860620	ERII		VASAWLTVLGL			
VVAEAGPPPAL	3	14:74967607	LTBP2		HEVFSAPAV	3	4:1165130	SPON2
SQIEIEAVAI	3	8:99115125	HRSP12		SRAECGSTRSL	3	1:16462199	EPHA2
SLPTRPRLLPL	3	5:137803132	EGR1		CVCACPGDRRR, CVCACPGR	3	17:7577121	TP53
FSVAELQARL	3	19:7747293	TRAPP5		WPQCPVAERA, CPVAERAETI,			
RAVHLPELL	3	2:239050033	KLHL30		CPVAERAV, CPQGWQCPV,	3	2:227661664	IRS1
LRMKRLPVAV, LRCRPTL,	3	20:3215425--20:3215484--	SLC4A11		WPQCPVAERA			
CRPPTLRM, LRMKRLPV,	3	20:3218646			SAVGDPPEL	3	17:40706906	HSD17B1
CRPPTLRMKRL					TAACPMTACSI	3	22:20130515--22:20130522	ZDHHC8
RLLPYPFHVL, YPFHVVL,	3	17:40937417--17:40939870	WNK4		SYLWPSRTL	3	14:98978534	FOXN3
WLSPISACPRL	3	7:87564497	ADAM22		APQQRASF	3	1:204120952	ETNK2
RQLTHVDQASF	3	20:37555116	FAM83D		FEVHVCAC	3	17:7577120	TP53
LLSEGDLDEPA, LLSEGDEL	3	1:36935323	CSF3R		SQAPPGSQSIM, SQSIMMSWM	3	1:204228411	PLEKH6
TRPGGWNRM	3	18:34205516	FHOD3		CTMPPLLHPQW	3	17:48433967	XYLT2
KRERMMLPV	3	10:100186986	HPS1		TAILAITL	3	18:34205516	FHOD3
AEGRAGARGL	3	2:43452512--2:43452623--			SPRKVDPV	3	5:176026120--5:176026138--	GPRIN1
STAKSASSRM	3	2:43452682	ZFP36L2		5:176026129--5:176026124			
ARPVSAAL	3	7:75677504	MDH2		AELQARLA, AELQARLAA	3	19:7747293	TRAPP5
RLLPAPFRV	3	5:112175484--5:112175346--	APC		SLHPSLPKL, LLLSLHPSL	3	2:204305619	RAPH1
RLKTFGVPL	3	5:112175424			CARGPLRPV	3	10:135186806	ECHS1
LRARWTSF, LRSLQRSPAL	3	1:204228411	PLEKHA6		DEAGRSAV	3	17:40706906	HSD17B1
RQNGYRAL, RQNGYRALM	3	22:31485922	SMTN		FLPGSTPSL	3	16:84213651	TAF1C
SLPGPCASLL	3	9:5897631	MLANA		WLPSLPTMAL, WLPSLPTMALL	3	14:20846338	TEP1
MLLMNLLATA, LLMNLLATA	3	3:51417604	DOCK3		IERSLLTVHQI	3	5:178358763	ZFP2
YLPGSDDPDTL	3	19:17000632	F2RL3		TYTYRRLQLTHY, QTHYGYINVK	3	1:76779647	ST6GALNAC3
RQPCAHGL	3	16:29908433	SEZ6L2		FTLRKNLSSL, KACAGLWPW	3	2:202151290	CASP8
QPHVHAAAAL	3	19:39330959--19:39330958	HNRNPL		LETMLHGQVM	3	20:230664469	CD93
SRAASLLFSI	3	2:43452244--2:43452491--	ZFP36L2		WAPAPGSPL	3	15:42371752	PLA2G4D
LLARALPPDV	3	2:43452464			SRMASTSCAA, SRMASTSCA	3	22:20130522--22:20130515	ZDHHC8
ILPRKVQLQMDF	3	7:150698398	NOS3		CIYRLTWGRRR, CIYRLTWGR,	3	7:100285170	GIGYFI
MEHDVALRREG	3	22:24121378	MMP11		CIYRLTWGR, LETMLHGQVM	3	7:102715804	ARMC10
	3	5:112175756--5:112175752	APC		FTKEASKKAM	3	1:100285170	
	3	7:100285170	GIGYF1		SLASCASVA	3	1:150530506--1:150529443	ADAMTSL4
					FQNEIFGSTV	3	7:91732038	AKAP9
QAHPQVPAL	3	3:114058003	ZBTB20		AEAAAATVAAF	3	7:100285170	GIGYFI
REQLQQEQAL, REQLQQEQALL	3	8:145001588	PLEC		GRRHLQPHDAL	3	7:42005678	GLI3
FGVPLGSIL, FGVPLGSILCL	3	1:204228411	PLEKHA6		RTRSPGRAEV	3	22:3122462	TRIOBP
TRVLNSSKPPL, WRVGPKTRVL	3	14:75230947	YLPMI		SREWKVKFPEL, SREWKVKF	3	15:45003781	B2M
QRMQQDSTRTV	3	2:95537572	TEKT4		SRMASTSCAA, SRMASTSCA	3	2:43452623--2:43452512	ZFP36L2
GEFLLCPLG	3	10:100186986	HPS1		CIYRLTWGRRR, CIYRLTWGR,	3	7:102715804	ARMC10
SQFTLALPMWL, FTLALPMWL	3	6:10557410	GCNT2		FLAVGGPW, FLAVGGPW	3	3:X:153688565	PLXNA3
RRAPRSPFL	3	7:100283942--7:100285170	GIGYF1		LRHPKVHL, LRHPKVHLNTM	3	5:112175351--5:112175346	APC
MMDPHENILL, YMMDPHENI,					RAVPHLSY, RAVPHLSYHRL	3	2:43452439	ZFP36L2
RTNYDFSLY, YMMDPHENIL,	3	5:160753376	GABRB2		SYKQDRDITL, SYKQDRDITLL	3	3:136287655	STAG1
YMMDPHENILL,					VRPPWNSF	3	16:50745399	NOD2
EVVRHCPHHER	3	17:5758406	TP53		SQLAGIPL	3	3:195453018	MUC20
SYDTYTTPL	3	3:1131812317	PAX6		NEPWYKLFSEL	3	10:97135757	SORBS1
REAPGKRRRL	3	10:17659149	PTPLA		FSAEKTPLPL	3	7:97933623	BAIAP2L1
RMMLMVRAR	3	18:34205516	FHOD3		MALLLRFSCM	3	14:20846338	TEP1
RRCRPLPGV	3	10:61828580	ANK3		KQLKPSEKYLK	3	5:112175596--5:112175552--	APC
NYIIISRNQQL, SRKRIIIVYI,	3	10:63958149	RTKN2		MAHPPPLSTV	3	1:55081757	FAM151A
YIIISRNQQL	3	18:34205516	FHOD3		SLLERVL, MSLLERVLFY	3	3:3067806	CNTN4
SRFWLALQQA, ARRESRFWL	3	1:22191454	HSPG2		IIMANMYQWI, NMYQWIRV,	3	14:96761299	ATG2B
LVASISAV	3	10:63958149			SRQKFPFDLII	3	19:46269076	SIX5
IAHFTRISLF, HFTRISLF,	3	3:40529660	ZNF619		TTSTSLL, LTAPLACLHL, LTAPLACL	3	12:121432118--12:121432115	HNF1A
VOIAHFRI	3	3:40529660			AQDGGAGQGAL	3	8:146033347	ZNF517
SPRPRLLTM	3	7:97933623	BAIAP2L1		TEADSKEY	3	14:12561296	ARHGAP5
GRADLIRLL, GRADLIRL,	3	19:33098632	ANKRD27		ISMTTISRATW	3	17:48433967	XYLT2
GRADLIRLL					MPPPPRRPL	3	11:45955607	PHF21A
MMRATGPPPSL	3	19:39330959	HNRNPL		LLPPPTTAAGL	3	11:18770651	BCL9L
SLLSRMPA, LLPRALPSL,	3	18:34205516	FHOD3		YWKEDELPM	3	X:84526620	ZNF711
MLLPRALPSL, MLLPRALPSL	3	18:34205516			STLWGVRMTSL	3	17:119709	FLCN
ASYLWPSRTL	3	14:89878534	FOXN3		RQMGSLLL, KRQMGSSL,	3	10:63958149	RTKN2
VRGPASPM, CRRVRGPASPM,					QMGSSLV, VSMKNPYHLL,			
RRVGPASPM, VRGPASPMGM	3	12:6657974	IFFO1		KRQMGSSL			
FLHVFVFLHFL, FLHVFVFL,	3	2:230661315	TRIP12		DRFVARKL	3	12:113376388	OAS3
HVFFFLHFL					WPWRGRPP, WRGRPPPPL,			
HVAAVCCVQY	3	4:153247289	FBXW7		GRPPPPP, WPWRGRPPP,	3	19:4491824	HDGFRP2
YLDKFVQRL, LLYVYIIET,					WPWRGRPPP			
LLYVYIIETNV, RLLYVYII,	3	18:12699829	CEP76		AEASTGAWTAE, AEASTGAWT	3	18:34205516	FHOD3
YLDKFVQRL, FVQRLLYV,					MSLSWGTALM, SLSWGTAL	3	17:25910016	KSR1
SLYLDKFV					VAHAAAALLF	3	2:43452432--2:43452439--	ZFP36L2
RDAVASAWLTV	3	1:228504670	OBSCN		SEAPGAQY	3	2:43452464	
TSAPSAQQL	3	3:114058003	ZBTB20		RRNLQRNL, RRNLQRNLKVL,	3	19:12996740	KLF1
SFGWLPPPM	3	8:120220776	MAL2		KRRNLQRNL, RRNLQRNLKVL	3	15:64967247	ZNF609
SRNDFEWVY	3	14:100625902	DEGS2					

VAHQLHLV	3	13:21562948	LATS2	RAFMQGQLGV	3	8:145738768	RECOL4
CQAQVLLRL, CPAQVLLRL	3	19:1004896	GRIN3B	VAMMITAAHV	3	X:135956571--X:135956575	RBMX
TEVPSLTAL	3	2:1481231	TPO	SAMAATTTTI, MAATTTTTI,	3	1:176525981	PAPPA2
RSKTLHHLL, SRSKTLHHLL,	3	5:112175606--5:112175605	APC	MAATTTTTIF			
MPPSRSKTL, SRSKTLHHLL				SMNRPLTI	3	17:577548	TP53
STWVHAHTFL, STWVHAHTFL,	3	11:57185284	SLC43A3	RERMMLPV	3	18:34205516	FHOD3
HVAHTFLM, TWVHAHTFL				SARRSCV	3	19:49611319	SNRNP70
RPIRTGPS, TPRPIRTGPSL,	3	19:4491824	HDGFRP2	VAAARGLLL	3	16:28847356--16:28847350	ATXN2L
QPPTPTPRPI, RPRTGPSL,				ASVPCRPM	3	1:204228411	PLEKHA6
TPRPIRTGPS				AASPSSLRAPV	3	20:23066469	CD93
YHRLLPLWAAL	3	2:43452342--2:43452464	ZFP36L2	RALPSLLSR, RALPSLLSRM	3	18:34205516	FHOD3
LYDRGPPPL	3	19:49850473	TEAD2	LLINFHSA, FLLINFHSA,			
MQLELASL	3	9:139694569	KIAA1984	KRDKLPLP, KLPFLLLI,	3	10:63958149	RTKN2
WSPTLPTPLRM	3	1:36636587--1:36636626	MAP7D1	KRDKLPLFLL			
FSTLPLPNLRM	3	12:56478854	ERBB3	FLATPPP, FLATPPP	3	2:60688969	BCL1A
YEGAATATDIV	3	6:166571895	T	RRKKKCVCYI, CRRKKKCVCYI	3	10:114925333	TCF7L2
MPSPSGLRLLLL	3	19:41858921	TGFB1	WRVVGATA	3	15:41099899	ZFYVE19
SLGRSFLPL	3	16:2059622	ZNF598	MMAFYLYKT, QIFMMAFYL,	3	18:12699829	CEP76
RQYWEALGA	3	19:622336	POLRMT	FMMAFYLYKT			
RRAAAAPTQQL	3	1:228559450	OBSCN	LEHDDGGVPI	3	7:149517978	SSPO
MEGAPAVVSSF	3	14:23549379	ACIN1	SWSPPCQSL	3	1:67390426	WDR78
GRAPLEGMLL	3	18:34205516	FHOD3	GRAPPVV, GRAPPVVRL	3	1:151318741	RFX5
GVWLWAGWTW	3	14:20846338	TEP1	ATTRCATAAL	3	16:2059622	ZNF598
TTSPFPLSL	3	16:30736370	SRCAP	TEVVRHCPH	3	17:578406	TP53
LRFSGGPPGL	3	17:18181545	TOP3A	RPSTRFLTVPV	3	7:139167934	KLRG2
RRCPGGRV	3	17:3627473	GSG2	MLLMNLATADL	3	19:17000632	F2RL3
TAVPAFTPLSA	3	1:204228411	PLEKHA6	RSLARASL	3	6:30863251--6:30864517--	DDR1
FRDQPVFFENL	3	14:96761299	ATG2B	FLRAGSEVLA	3	10:71906150	TYSND1
HPKVHLNTM, HLNTMFRR	3	5:112175350--5:112175346--	APC	LPASAPTSPL	3	22:46449891	C22orf26
HRCRGWVL	3	5:112175351		HPLERRGGTT, HPLERRGGTT,	3	2:227661664	IRS1
APGKRRRLGF, APGKRRRLGF	3	19:55815035	BRSK1	HPLERRGGT			
RSWTSKGWR	3	10:17659131--10:17659149--	PTPLA	FFTSVPGPFKM	3	20:30789952	PLAGL2
SPRRAGTALS, SPRRAGPTA	3	10:17659149--10:17659131		TTHPTCIL	3	22:20130515--22:20130522	ZDHHC8
SRRAAASTA, RRARASTA	3	7:100283942--7:100285170		VLLSCARGPL	3	10:135186806	ECHS1
RPGWKGHHRV	3	1:155178782	MTX1	FPGCTPPAY, FPGCTPPAYLL	3	19:17837512	MAP1S
SSCMGMGNWR	3	2:43452623--2:43452512	ZFP36L2	SAMPSAMGV, TSAMPSAM,	3	1:204228411	PLEKHA6
SVATLGPL, WWSVATLGPL,	3	18:34205516	FHOD3	SAMGVALPT			
RAQWVSVATL	3	17:57757539	TP53	GRLTAIKLF, GRLTAIKL	3	4:115544340	UGT8
GRFAVLGT	3	9:137688741--9:137693829--		EMRAGGCCHAL	3	10:46999601	GPRN2
KTFGVPLGS	3	1:150530506	ADAMTSL4	SRAPCRPPV	3	18:34205516	FHOD3
WELCRAAPG	3	3:194228411	PLEKHA6	LRRVGGQRPL	3	8:145106939	OPLAH
FLARSWNTM, LARSWNTM	3	1:200880978	Clorf106	ARFFPITPPVVW	3	17:56435161--17:56435252	RNF43
GIFTFRFWV, FTFRFWKEVL	3	3:77657038	ROBO2	LPPPPPPPV	3	10:105110740	PCGF6
	3	18:12699829	CEP76	SYLLLIQML, SYLLLIQM	3	14:23549379	ACIN1

RARGGTI	3	12:122242658	SETD1B	FSHGSQLQI	3	19:12256527	ZNF625
VRWAAASKL	3	19:52715982	PPP2R1A	SGHEGILAL	3	11:76751542	B3GNT6
RYPVORLPLF	3	2:242674803	D2HDHD	QRRPGPSPEAL	3	19:17439320	ANO8
WVMELEWL, WVMELEWL	3	18:12699829	CEP76	PWKGICWKW, CWKWPVTV	3	10:29760116	SVIL
CRPACTI	3	17:48433967	XYLT2	FPITPPVWHI, TPPVWHIL	3	17:56435161	RNF43
FRRYKVLREI, FRRYKVLREI,	3	21:38302646	HLCs	SVHLIVLRRV, VVRLPAPFR,			
RRYKVLREI, RRYKVLREILT,				LIVLVRV, VLLSVHLIVL, VVRLPAPF, LSVHLIVL, LLSVHLIVL, HLIVLVRV	3	5:112175346--5:112175351--	APC
SNFRYKV, RRYKVLREI				FHPWTTDM	3	2:171572940	SP5
SVMSCSLL	3	17:48433967	XYLT2	KMMELEWL, KMMELEWL	3	18:12699829	CEP76
GRTLLVTCIL, LYHRWIVTSM,	3	10:890939	LARP4B	KYSRWIFL, KYSRWIFL	3	5:112175756--5:112175752--	APC
AYLGRLLTV, AYLGRLLTLL				TEYKLVVVGAC	3	5:112175760	
RTDCLLAIVI	3	5:57753012	PLK2	MAVKRIWSTV	3	12:25398285	KRAS
RMKKWAPLM	3	7:100285170--7:100283942	GIGYF1	LPSAPSGGPL	3	17:1198898	MAP2K4
LGDPFHPL	3	19:10116508	COL5A3	LAMKIGGVS	3	1:228559450	OBSCN
FRARILCL	3	3:40529660	ZNF619	RASPARASPL	3	11:17789327--11:17789342--	TMPPRSS13
NFSAHLLM	3	10:94243045	IDE	STALKIWLV, KIWLVLISPL	3	11:17789327	
ALMVVPAL, ATAGAPPAL	3	7:100285170	GIGYF1	ARMGGAASF	3	6:30863251--6:30864517--	DDR1
LELIQITNNIV	3	8:68116980	ARFGEF1	CPKCSTPA, CPKCSTPATL,	3	6:30864547	AKAP9
FASLRPRSVV, FASLRPRSVV,	3	16:28847356--16:28847350	ATXN2L	TPATLTLAV	3	7:91732038	C19orf66
FASLRPRSVV				LAWARAHLAV	3	19:10202224	
CPPAATCGPT	3	8:120220776	MAL2	MMITAHHVTDM, LMVEAVAM	3	14:104642560--14:104642401--	KIF26A
RQSAILYVHRI	3	4:436610--4:435686	ZNF721	VRLPAPFRV	3	14:104642555	
MERCTHCTGSC	3	16:2059622	ZNF598	STVHCMHL	3	14:104642555	
RRGGPPSPPL	3	17:56435161	RNF43	RVTQALQASL	3	14:104642555	
CSGVLSGF, LSGFWLPPPMF	3	8:120220776	MAL2	TEYKLVVVGAS	3	14:104642555	
KRDQCFQMM	3	11:124845049	CCDC15	RPTPTRLM	3	14:104642555	
WLPPPMFLYLY, WLPPPMFLY	3	8:120220776	MAL2	YVDPSGGDHFC	3	14:104642555	
FSWVGGGGTRE	3	20:23066469	CD93	LRFSCMRVASY, LRFSCMRV	3	14:104642555	
FTHSQTQI, FTHSQTQIKGV	3	15:34064243	RYR3	YTVPKRV	3	14:104642555	
VRLARVRRA	3	2:43452439--2:43452244--	ZFP36L2	GPRTTTATM	3	14:104642555	
YTDPSLSQLKHV	3	12:57861838	GLII	KASSPGHPL	3	14:104642555	
LRAQGCNPSL	3	19:4816465	TICAM1	SRQKFPFDL, SRQKFPFDLII	3	14:104642555	
TQLARFFPIT, MQLCTQLA	3	17:56435161	RNF43	CEICVKS	3	14:104642555	
KRYCILQV, SRKRYCIL	3	10:63958149	RTKN2	RRIPPPHPRCL	3	14:104642555	
SRKRYCILQV				LPRAGTGT, YPTRLPRA,	3	14:104642555	
RADLIRLL, RADLIRLLLK,	3	19:33098632	ANKRD27	RIAAPTL, TRIAAAPTL	3	14:104642555	
RADLIRLL				LTIQNAAF	3	13:20638677	ZMYM2
KRRLRGFLATA, RRRRGFLA,				FSHKLYLKNM	3	19:52888438	ZNF880
KRRLRGFLA, RRRRGFLAT,				WMVPWGMEA	3	14:104642560--14:104642401	KIF26A
RRRGFLAT, RRRRGFLATA							
SRPPVQRLV, SRPPVQRLVV	3	2:70315174	PCBP1				
SARGAPSCHL	3	16:2059622	ZNF598				
IRSEGQDQL	3	19:51843808	VSI10L				
YFADMERIHIL	3	3:25668727	TOP2B				

RNLPPKVVLR	3	5:112175350--5:112175346-- 5:112175351	APC	LRAPSSFHPLV, LRAPSSFHPL YSSGFCNIAV	3	1:228559450 3	11:108117798	OBSNCN ATM
STPAAGSSL	3	18:3456550--18:3456403-- 18:3457371	TGIF1	FRRPHSCLIA, FRRPHSCLADV, FRRPHSCL	3	5:112175346--5:112175351	APC	
RERLYQDTSLM	3	13:20638677	ZMYM2	MPPHVVLTF LQIAEIKDW	3	16:89167094 3	5:112175212	ACSF3 APC
PPLPPPPPTPM, LPPPPPTPM, GRPPPPP, WRGRPPPP, WPWRGRPPP, LPPPPPTPMCL, WPWRGRPPP	3	19:4491824	HDGFRP2	FVMLHIHL, FIFFVMPL AESCSSAPA	3	5:72199545 3	2:56411817	TNP01 CCDC85A HNRNPL
LTHPAHQL	3	1:27105931	ARID1A	WPSRRQPC, WPSRRQPCA	3	19:39330958--19:39330959	19:39330958--19:39330959	
NQFVVADLL, FVVADLLL, NQFVVADLL, NQFVVADLLL	3	1:154304153	ATP8B2	LYQDTSLSMMI, LYQDTSLSMMI, RLYQDTSLSMMI, LMMIVLTI	3	13:20638677	ZMYM2	
VVSRTLTVVF, SRTLTVVFVI, YVSRTLTV	3	4:141888889	RNF150	SEALLAQ, SEALLAQPPC, SEALLAQPP, SEALLAQPPCC	3	19:36258938	C19orf55	
TPSPTRV	3	19:39330959--19:39330958	HNRNPL	LPRQYWEALGA, LPRQYWEAL, LPRQYWEA	3	19:622336	POLRMT	
RTPLFPLL	3	5:137803132	EGR1	PRSTWHSVLM SPSLASCASV	3	16:50745399 3	1:150530506--1:150529443	NOD2 ADAMTSL4 OPRD1
SYPSSLSV, SYPSSLSVFSV, SVFPGYHLY, KYSYPSLSVFSV, KYSYPSLSV, SYPSSLSV, YSSYPSLSV, YSSYPSLSVFSV	3	3:169802469	GPR160	AYPSAFPSA SSRQHRSAL	3	1:29138975 3	16:50745399	NOD2 SGSM1
SCSMRRNMI	3	16:2059622	ZNF598	FTDIKLFNEM, FTDIILKF LEATALGA	3	22:25315953 3	16:2059622	ZNF598
GRVGKSAL	3	1:115258745	NRAS	CAMDLSLRVRL, LQKYPQAAA, LQKYPQAAAV, AMDSLRPV	3	12:121432118--12:121432115	HNF1A	
RRPAAGGDREL	3	19:17932138	INSL3	KQIHTGEK	2	16:31926853--19:37643428	ZNF267-- ZNF585A	
RRMHVCGGSL, RRMHVCAGGSL	3	16:1273490	TPSG1	ISITFFCLF	2	X:49069216--3:53804490	CACNA1F-- CACNA1D	
FSVPGYHLY, SVPGYHLYY, FSVPGYHLYYF, YSSYPSLSVFSV, SVFPGYHLY, SYPSSLSVFSV, KYSYPSLSVFS, SYPSSLSV, FSVPGYHLYY, SVPGYHLYYYF	3	3:169802469	GPR160	SRVRTSFF, YPSSRVRTSFF	2	X:101912485--X:1019171767	GPRASPI-- ARMCX5-- GPRASP2, GPRASP2	
RERVDSLKL	3	5:112175596--5:112175594-- 5:112175553	APC	YALRSFNYEQL	2	5:140745458--4:134072889	PCDH10-- PCDHGAs	
VLDINDNPPL	3	4:134071648--4:134071649	PCDH10	ARIGRILCL	2	2:166848843--2:166245228	SCN2A--SCN1A	
RRTRKQTKV, GRRTRKQTKV, RRTRKQTKV	3	5:137803132	EGR1	LLDPSQNNL	2	19:12246636--1:247202765	ZNF670--ZNF20	
LSFWPGGY, LSFWPGGYPAY	3	15:45003781	B2M	LEDLLMGM	2	6:150342081--6:150267749	ULBP2-- RAET1L	
CASLLSTL	3	3:51417604	DOCK3	KAFFCPVY	2	19:12384448--19:12502590	ZNF44--ZNF799	
WRRAWRRPPL, WRRAWRRPPL, WRRAWRRPPLM	3	22:18300932	MICAL3	VPPPHILL	2	16:24942180--7:29874359	WIPF3-- ARHGAP17	
WMTSLISSL, MTSLISSL, SRWMTSLISSL	3	16:14346300	MKL2					
LPGEGGDGTTPA	3	9:25677953	TUSC1					
REMРАGGCCHA	3	10:46999601	GPRIN2					
LEAQEYHL	2	19:54823313--19:54783825	LILRB2-- LILRA5	RQASKALLPV	2	2:241631398--2:241622187	AQP12B-- AQP12A	
DTAGREEEY	2	1:115256529--12:25380276	NRAS--KRAS	LSSPTRPL	2	19:40392496--12:122618185	MLXIP--FCGBP	
YSGNLLSF, LSFSSRRGM, SVYSGNLLSF	2	2:97749725--2:96078466	FAHD2A-- FAHD2B					
CSVGNTLVL	2	2:178482721--2:178416783	TTC30A-- TTC30B					
HRDLAAQNIL, HRDLAAQNIL, FTQPEYTVFV, TQPEYTVFV, FTQPEYTVF	2	4:55956220--5:180043464	FLT4--KDR					
	2	5:140175915--5:140250051	PCDHA11-- PCDHA2					
FILVRNPMNV	2	19:37130434--19:37618972	ZNF420-- ZNF461	FVLDKNDNAPA	2	5:140209348--5:140188444	PCDHA11, PCDHA1, PCDH4, PCDH47, PCDH46, PCDH48, PCDHA13, PCDHA10, PCDHA9, PCDHA3, PCDHA4	
FRPGKVLCF, FRPGKVLCFL	2	X:70597459--9:32634800	TAFA1--TAFA1					
YELVVTAW	2	5:140175831--5:140236912	PCDHA10-- PCDHA2					
TRRRHIEI, RYLTRRRHI, RYLTTRRRHI, RYLTRRRHIEI	2	7:27185425--7:27194742	HOXA7-- HOXA6					
EQTPLTTLY, AEQTPLTTLY	2	12:112228337--15:101434258	ALDH1A3-- ALDH2					
HQRHLTGKSL	2	19:58018106--1:38304394	ZNF773--MTF1					
CSATATLHV	2	5:140564088--5:140559596	PCDH16-- PCDH8	KAFSHSSF	2	19:12383358--3:44762890	ZNF502--ZNF44	
			PCDHAC1, PCDHAC2, PCDHA2, PCDHA12, PCDHA5, PCDHA11, PCDHA1,	TQHQIIHI	2	19:37619881--10:38344518	ZNF33A-- ZNF420	
			PCDHA12, PCDHA5, PCDHA11, PCDHA1,	KIIHNREK	2	19:22271382--4:437702	ZNF21-- ZNF257	
			PCDHA1, PCDHA7, PCDHA6, PCDHA8, PCDHA13, PCDHA10, PCDHA9, PCDHA3, PCDHA4	LSFSRRGMK	2	2:96078466--2:97749725	FAHD2A-- FAHD2B	
			PCDHA1, PCDHA7, PCDHA6, PCDHA8, PCDHA13, PCDHA10, PCDHA9, PCDHA3, PCDHA4-- PCDHA10	FIDKWWFL, SFIDKWWFL	2	12:52777579--12:52992893	KRT84--KRT72	
RIPFRMGLY	2	5:140237500--5:140188642	SELARINYL					
			VLLSSIFI, ALAVLSSSF1					
			YRDMMLENY					
			SGQNTWLSY, GQNTWLSY, DSGQNTWLSY					
			CNKCGKAFR					
			EIIIHTGERPY					
			AQHWIIHTGEK					
			REIQTAVCLL, IQTAVCLL					
SSLFLFLVLLF, FLVLLFVAV, FLFLVLLFVAV, SLFLFLVLLFV, SVSSLFLFLV, FLFLVLLFV	2	5:140531943--5:140595806	ZNF568-- ZNF420					
NPMNVRNV	2	19:37440746--19:37618972						

FFYTTTTLII, FFYTTTTL, FYTTLIIF, FFYTTTLLI, FYTTLIIF, FFYTTTLLI, FYTTLIIF, FFYTTTLLI	2	11:57191485	SLC4A3-- SLC4A3, PRG2	YLIITICA, YLIITICAV, LIITICAV FMYTIAGLCML, YTIAGLCML, FMYTIAGL, YTIAGLCMLKL, YTIAGLCM, FQFDTSFMYTI, FMYTIAGLCM	2	5:140203464--5:140167982	PCDHA1-- PCDHS5
HEIHTGEKPY	2	19:12461545--19:12637432	ZNF442-- ZNF564	FTLEKGLMSA YRKFTSASNV, FTSASNWWSY, TSASNWSY, FTSASNWW, YRKFTSASNWW, SASNWSY	2	3:113329873--11:117062612	SIDT2--SIDT1
RVYTGEKPY	2	19:38189537--12:133587135	ZNF607--ZNF26	SRRFKEPWF YKFEECGKAF	2	19:57910688--19:58290302	ZNF548-- ZNF586
QEMSWIADT, GEQEMSWIADT, GEQEMSWI, GEQEMSWIA, QEMSWIADTYA	2	X:120182230--10:88827869	GLUD1-- GLUD2	3:134960059--1:23235584	2	EPHB1--EPHB2	
TLHQIHTGE	2	19:38126321--19:57089719	ZNF470--ZFP30	SRRFKEPWF YKFEECGKAF	2	19:30935604--18:74154167	ZNF516-- ZNF536
ILHNFNLK	2	10:96612560--10:96748674	CYP2C9-- CYP2C19	5:19905752--19:21991304	2	ZNF506--ZNF43	
ALQADEFHV, YEALQADEFHV	2	5:140475969--5:140481822	PCDHB2-- PCDHB3			PCDHAC1, PCDHAC2,	
SGHNTWLSY, ADSGHNTWLSY, ADSGHNTW, VDADSGHNTW	2	5:140731619--5:140779486	PCDHGB5-- PCDHGB1			PCDHAC2, PCDHAA2,	
SRRGMKSSV, SRRGMKSSVRL	2	2:97749725--2:96078466	FAHD2B-- FAHD2A			PCDHAA2, PCDHAA12,	
MYQVPAQL, MYQVPAQLGHL FQDEEGKEYV	2	20:23667825--20:23729753 X:70617214--9:32632006	CST4--CST1 TAF1--TAF1L	TRIPFRVGLY, TRIPFRVGL	2	5:140188624--5:140263705	PCDHAA11, PCDHAA1,
RSHTGEKPYK	2	19:20229196--20:45130930	ZNF334--ZNF90			PCDHAA11, PCDHAA1,	
ATYVAIQAV	2	1:229568356--7:5568319	ACTA1--ACTB			PCDHAA1, PCDHAA1,	
TAPPLLLL	2	22:39427885--17:7751828	APOBEC3D-- KDM6B			PCDHAA1, PCDHAA3,	
HQHIHTGER	2	7:150094966--16:30795140	ZNF775-- ZNF629			PCDHAA4-- PCDHAA13	
KLHRDVMLENF	2	19:44585249--19:44844613	ZNF284-- ZFP112	ALSSKALV	2	5:140590109--5:140531462	PCDHAA13, PCDHAA13
LEEKVCAL	2	12:14591091--20:25434140	NINL--ATF7IP	SPTNVMVS	2	8:145999587--6:28358666	PCDHAA10,
NADKTWYL	2	1:158152835--1:158325784	CD1E--CD1D			PCDHAA9,	
IVHQQTHTGEK	2	19:52496818--19:52519847	ZNF615-- ZNF614	SFFPKSSPLF, SFFPKSSPL, RSFFPKSSPL	2	8:26221272	PCDHAA3, DOCK5,
GLHCKHAK	2	4:69811043--4:69964387	UGT2B7-- UGT2A3	HTCKICGK	2	19:11917583--19:11833351	PPP2R2A-- PPP2R2A
TVHQITHTGEK	2	X:47835717--19:37118082	ZNF182-- ZNF382	HQLHREIEI	2	19:57743562--17:8110524	ZNF491-- ZNF823
MMMCYLFH, MMMCYLFHMY, MMMCYLFHM, DMMMCYLF, MMMCYLFHMYV	2	15:34150114--19:39071143	RYR3--RYR1	YMGEISTT, FRVGLYMGEI MMKNQRVQLMH, VQLMHQMKG, RVQLMHQMKG	2	5:140176432--5:140209559	AURKC-- AURKB
					2	X:69595981--5:154395374	PCDHAA2-- PCDHAA6
							KIF4B--KIF4A
CEKSCCCCPV	2	16:56667311--16:56660437	MT1M--MT1E				
MQHTGEKPY	2	19:9868344--19:14829800	ZNF333-- ZNF846				
RRRGKNKVAV, RRGKNKVAV	2	2:17805799--7:26225093	NFE2L3-- NFE2L2				
FSRRGMKSSV	2	2:96078466--2:97749725	FAHD2A-- FAHD2B				
IRLVRVFHIF, VRVFHIFKL, IRLVRVFHFI	2	12:5154539--12:4920259	KCN4A-- KCN4B				
FSAGKWICV	2	10:96612495--10:96748609	CYP2C19-- CYP2C9				
ATVTLTAVM, LSATVTLTVAM, SATVTLTVAM	2	5:140794744--5:140712241	PCDHGA1-- PCDHGA10				
DTAGLEEY, ILDTAGLEEY	2	1:115256529--12:25380276	NRAS--KRAS				
VVVGACVGK, VVGACVGK	2	12:25398285--1:115258748	NRAS--KRAS				
FPGPKGPL	2	9:13768741--6:33141280	COL11A2-- COL5A1				
FTTNSMNIPAL, MGFTTNSM	2	20:13071817--14:78036765	SPTLC3-- SPTLC2				
SSAPCTELV	2	5:140516715--5:14059320	PCDHB8-- PCDHB5				
VVYPWTQRLF, PWWTQLFESF, VVYPWTQRL, VVPWTQRLF, WTQRLFESF, VYPWTQRL	2	11:5255410--11:5247996	HBB--HBD	RQFWFLMPFR, SVRFQFWFLMY, RQFWFLMY, ISVRQFWFLMY, RQFWFLMPF	2	X:78426851	GPR174
LQFDGALNVLD, LQFDGALNV	2	2:132237994--2:130951687	TUBA3E-- TUBA3D	HLLFEAWLL, KMMIGSQHL	2	10:3214942	PITRM1
ITYVSLIY, ITYVSLIYDAF	2	1:39749132	MACF1	RRGLCVLRL, RRGLCVL, YKKERICKL, YKKERICKL, ERICKL, YLNSSGSY, SYLNSSGSYWW, YLNSSGSYWW	2	3:52729561	GLT8D1
PPGSPGQST, SPGQSTQLPL, SPGQSTQL	2	17:8296383	RNF222	ERICKL, YLNSSGSY, SYLNSSGSYWW, YLNSSGSYWW	2	4:113353573	ALPK1
LPGRLLQSCI, LPGRLLQSCI, FPCRLLQPLPGR	2	6:116836954	FAM26E	RPRPPLPPL, LGRPRPPL, RPRPPL, FSNLVRLM, VRLMPWHLCM, VRLMPWHL, RVLMPWHL, RLMGPWHL, GFSNLVRLM, YLSFQEVEYRM, FLDILNYLSF, ILNYLSFQEYRM, FLDILNYLSF, KMISTIPSW, LFLYKRNSTNL, LFYKRNSTNL, FYKRNSTNL, KRNSTNL, FYKRNSTNL, FYKRNSTNL, KRNSTNL, FYKRNSTNL, ELAGDQPY, MSLSNILMKF, SLSNILMKFRL, MSLSNILM	2	16:88599701	ZFPM1
HLMVEAVAM	2	X:135956575	RBMX	MSLSNILM, RQFWFLMPFR, SVRFQFWFLMY, RQFWFLMY, ISVRQFWFLMY, RQFWFLMPF	2	16:30736371	SRCAP
YRLQARIAHQI, ARIAHQIQL, LQARIAHQI	2	19:11100016	SMARCA4	HLLFEAWLL, KMMIGSQHL	2	1:91977351	CDC7
FFYRCICL	2	7:20371449	ITGB8	WYIMSDNYTNV, YMSDNYTNV	2	12:14019044	GRIN2B
ARAGACWV	2	19:7592423--19:7592444	MCOLN1	FVCEAIQRF, LEFVCEAI	2	1:93575840	METTL6
QRRPHLN	2	1:203144870	MYBPH	LRQNQKPTPSL	2	5:178418554	CRHBP
RVFSVAELQAR	2	19:7747293	TRAPPCE5	ISREAGGGLY	2	17:56448298	CEP290
FSPPAACSPA	2	6:45390355	RUNX2	LSSLTSLR, SEEPVLSL	2	1:200573037	RNF43
TRIMKTD, TRIMKTDFAGL	2	4:20258327	SLIT2	SQINLIDL, HRITSQINL, HRITSQINL, HRITSQINL, CVERCPWK	2	5:76249497	METTL6
GELELLVAA, RVRAELEL, RVRAELELL, RVRAELELL	2	15:41803754	LTK	FTNQKENPL	2	10:29760116	CRHBP
FQIHTPPA	2	14:58698938	ACTR10	RSAKYIQIHGR	2	19:11917796	SVIL
FASDNFLGI	2	16:11862325	ZC3H7A	RLLPTYRPTL, FPLYSGRLL	2	11:46702223--11:46702224	CES1
VALWQQQICAL, VALWQQQI	2	17:66899514	ABCAB8	FFLLITITL	2	17:34313637	ARHGAP1
				TAPPSTRMM	2	2:227661664	CCL14
				NMDFTDIKLF	2	2:25315953	IRS1
				QRTIVRTIVL, RTIVRTIVL	2	9:101900171	SGSM1
				MRHKQVKENCL	2	3:113753983	TGFBR1
				SEIPPPAPA, SEIPPPAPAT	2	17:73491063	KIAA1407
				LAFFPAGAPWV, GHQRSSSL,	2	19:17039884	KIAA0195
				SRGHQRSSSL	2	5:178311162	CPAMD8
				RQSSSLIAHQI	2	ZNF354B	

NYFFFVFSVIFF, YFFVFVFSVIFF	2	3:194140668--3:194140669	ATP13A3	FLLHATPQTQI, TQLPKVWDPV, FLLHATPQT	2	16:50745399	NOD2
			UGT1A8,	HVQVRKVPV	2	2:43452464--2:43452491	ZFP36L2
			UGT1A7,	SYNPHTGMESL, SYNPHGTM	2	6:30624769	DHX16
HTSIWLQLDF, QTDFVLVDYK, LQTDFVLVDY, WLQLQDFVLVDY, QTDFVLVDY, LLQDFVLVDY	2	2:234581341	UGT1A3,	LAASSSAW	2	17:8296440	RNF22
			UGT1A1,	ATWMRPPRSLL	2	22:18300932	MICAL3
			UGT1A5,	RRPLQPLL	2	1:36643581--1:36643530	MAP7D1
			UGT1A6,	LTHPLLVSL, LTHPLLVSL, LTHPLLVSL, FSTASLAKEL,	2	16:68835781	CDH1
			UGT1A9,	LAKELTPL			
KGFFKHTVQK, GFFKHTVQK	2	2:157185044	UGT1A4	QRWKWVSQNRL, SQNRLFNLTQM, SQNRLFNL	2	17:60742035	MRC2
MQLDTVLTL, FLMQLDTVLTL	2	2:164466486	NR4A2	QARDLRCPL, CPLTAPLACL, DLRCPLTAPL	2	12:121432118--12:121432115	HNF1A
FLVVFILLSSV, FLVVFILL	2	7:92733781	FIGN	SVLVRSPR, MASSVVRSPR, MASSVVR, MASSVVR	2	8:22054260--8:22054259	BMP1
GPPARAIAT	2	1:36935323	SAMD9	GELTVGM, LTVGTMPTDSL	2	6:32049373	TNXB
MRRQQNEV, RRQQNEVVV, MRRQQNEVVV, RRQQNEVVV, MRRQQNEVV	2	3:160254612	CSF3R	VRLDSMVL, VRLDSMVL	2	8:13259103	DLC1
MSPPASRWNP, RWNPLRRTRAL	2	16:1270496	KPNA4	SWPWTRCL, RMGGHRPSWPW, RMGGHRPSW, SWPWTRCLRM	2	19:49458971	BAX
RRLRQLVCHQR	2	19:36831575	CACNA1H	QTSTVNFT	2	3:169587528	LRRC31
GRRSRAYM	2	19:35758275	ZFP14	WLYQESLPTL, TLFCMTHGL, TLFCMTHGL	2	6:10557410	GCNT2
LENEDQEVCML, QEVCMLFKDL	2	5:148427439	LSR	WQDIIGYMAVL, WQDIIGYMAV, TRYWPASSI	2	19:17838753--19:17838385	MAP1S
RTMAGPSASL, TMAGPSASL, MAGPSASL	2	11:71948748	INPPL1	ALLAAIWFTQTY, LAAAIWFQTY	2	2:9098719	MBOAT2
CMSSLPLW	2	1:156814053	INSRR	AQDLAGVISAL	2	15:41099899	ZFYVE19
QHFAHFTEAI	2	11:47283147	NR1H3	FQSMSWP1, SMSWPIILTIFL, FQSMSWPIL	2	11:33117910	CSTF3
MICHGCVLK, GMICHGCVLK	2	5:112176027	APC	DPFKRLISAF	2	2:101010201	CHST10
GRHSPTL	2	7:99818416--7:99817848	PVRIG	IRRNHSSL	2	11:108032695--11:108032701	NPAT
SQAGLGVW	2	3:48612871	COL7A1	FSSREERLWF	2	9:101900288	TGFBR1
RLLLLPLPLL, LLLLPLWLL, LLLPLWLL, LLLLPL	2	19:41858921	TGFB1	ARPPTSCSTCRM	2	9:136918529	BRD3
RVVRVLPAFP	2	5:112175351--5:112175346	APC	QRPPRSILS1, QRPPRSIL	2	6:36867371	C6orf89
WLPCTHPTGL	2	19:55815035	BRSK1	LQSVHEVF	2	4:1165130	SPON2
IMRPSTAAA	2	12:7249400	C1RL	VFPEGLGDVW	2	21:38081480	SIM2
TPEVQGRVPT, TPEVQGRVPTL	2	11:66472274	SPTBN2	FFTMVPYEL, NSSDGFFTM, FTMVPYEL, FTMVPYELQE1	2	1:46120890	GPBP1L1
KPEEPAEV	2	4:7044380	CCDC96	LRMNQGKI	2	1:20231475	OTUD3
TQDTTVSL, RTQDTTVSL	2	6:32811743	PSMB8	HPGACHFSGRV	2	9:18680349	ADAMTS1
APPPTSPTRV, APPTPSPT, RPVWPWAPP, RVWPWSRRQPC	2	19:39330958--19:39330959	HNRNPL	HFLEKSPLEEW, VFFFLHFL, RFLHVFVFFLHF	2	2:230661315	TRIP12
ARPPRLLF, ARPPRLLFTSL	2	7:99817848--7:99818416	PVRIG				
SQVWTAATL	2	3:51417604	DOCK3				
EFQPVSLLM	2	12:24048776	SOX5				
EPQESGDGSL	2	21:36042579	CLIC6				
LPRKVQLQMDF, LPRKVQLQM	2	5:112175752--5:112175761	APC				
KYFYKNVT, YFYKNVTM, YFYKNVT, YFYKNVTM	2	2:210559274	MAP2	FISSVPSSL	2	16:84214763--16:84214674	TAF1C
STIPVHIL, STIPVHILF, STIPVHILFF	2	17:37829317	PGAP3	CLSSLPHLHER	2	1:247263870	ZNF669
WPGIACRV, WPGIACRV	2	16:2059622	ZNF598	RMAFEGLSL, MAFEGLSL ATRSRHRTRFV, ATRSRRHTRF, RSRHTRTRFV, RHTRTRFV	2	9:137708907--9:137707451	COL5A1
KDQVVAAMTCI, QDFMKDQVWAA	2	14:68221958	ZFYVE26	LRCPAVPAA, LRCAPVAA LRCPAVPAA	2	11:65628334	MUS81
YQFWKNFHTL, YQFWKNFHT	2	3:46414975	CCR5	KRPARSRLVPL, KRPARSRL, ARSLRVPLGSL, ARSLRVPL, KRPARSRLV, SRLVPLGSL	2	3:51417604	DOCK3
RSASPGPK	2	11:67176565	TBC1D10C	KRNHGHQPL	2	12:77449827--12:77449858	E2F7
SQKRGQLCSPL	2	8:22054260--8:22054259	BMP1	ARSKFTGL, LRTSARSKF	2	5:133473786--5:133451703	TCF7
CACPGRDW	2	17:7577094	TP53	TYFQIHINK, GTYFQIHINK, YFQIHINKYKM	2	20:20278871	C20orf26
VRRSLCLKFNL, RRSCLCLKF, VRRSLCLKF	2	15:32926204	ARHGAP11A	TTPTCTSSIL	2	17:6406883	PITPNM3
TLRMKRLPVAV, RPPTLRMKRL, LRMKRLPVA, LRCRPPTLRM, TLRMKRLPV	2	20:3218646--20:3215484	SLC4A11	LPRRSGRAATA, LPRRSGRAAA, LPRRSGRAAA	2	6:43251912	TTBK1
RVGGQRLPLP	2	8:145106939	OPLAH	VPGAAAPA, APAAAALM, VPGAAAPAA, AAAPAAAAL, VPGAAAPAA, VPGAAAPAAA	2	17:7496122	FXR2
WTYCCCLPSLL, WTYCCCLPSLL, WTYCCCLPSL	2	2:73302665--2:73302655	RAB11FIP5	HSFVQLCADY, FVQLCADY	2	14:57675371	EXOC5
CPGRNAWWL	2	7:128852004	SMO	EQLQNLII	2	6:109787329	ZBTB24
YMYNSSCM, YMYNMYNSCM, YMYNSSCM, YMYNNSCM,	2	17:7577568	TP53	SQNWGSPL	2	19:13882968	MRII
YMYNSSCMGGM, NYMYNNSCM, TTIHYNMY	2	17:25910016	KSR1	EISNNVLAGI	2	2:48059591	FBXO11
SPMSLWSGT, SPHSPGASP, SPMSLWSGT, CPASPHSPGAS, SPMSLWSGT, SPGASPMSL, SPHSPGAS, SPHSPGASP, MSLWSGTAL, SPHSPGASPMS	2	11:77649828	INTS4	IPYMAFKVV, REIIICIPYMA, QVYREIIICIPY, IPYMAFKVV, VYREIIICIPY, REIIICIPY, YREIIICIPY, REIIICIPY	2	4:114262920	ANK2
YRFHKFHSPAL, YRFHKFHSP, EEHYRHFHK, LEEHYRHFHK	2	2:31457617	WASL	KYMKHTRL, KYMKHTRLF	2	17:18149086	FLII
YSLGEFSSGR	2	7:123332485	ZNF862	ETDNVLDLSEL, ETDNVLV	2	22:37906309	CARD10
REGAQLKKW	2	7:149544824	BCL9	KVWDPVFFGA, TQLPKVWDPV	2	16:50745399	NOD2
ASEEFLPF	2	1:147092680	PKHD1L1	FRLRSK1Y	2	15:41865543	TYRO3
ITSCPVTW	2	8:110452953		MKMACGKRSL	2	16:15131990	NTAN1
FASTRDKLN, YSIQYVLEV	2			AVRHHRGREGPA	2	2:43452491--2:43452464	ZFP36L2
IASLSCFTCM, MMTMAISL, FTCMMTMAI, MMTMAISLTAL, CMMTMAISL, MTMAISLTAL, CMMTMAISLTAL, MMTMAISLTAL, FTCMMTMAISL, IASLSCFTCM	2	20:31384651	DNMT3B	GDFWVYTCAI, AQDLGGDFWVY, DLGGDFWVY	2	4:7666085	SORCS2
CTNFYHHK, CLCTNFYHHK	2	5:112176027	APC	RRQPCAHGLW	2	19:39330958--19:39330959	HNRNPL
YYKDYLHCEWI	2	8:3256976	CSMD1	RPLSLQCSL, LRPLSLQCSL, RPLSLQCSL, ERNLRLPSSL	2	9:35043650	C9orf131
APSAAAAAAQV	2	X:11202477	AMOT	YTLQPLDHEEL, AESGKVYTL	2	5:140167430	PCDHA1
				MPKLHFASRL	2	7:93516175	TFPI2
				GRAAQLLDVRL, VRLFELSE	2	19:19040312	HOMER3

LEIALTISPF	2	1:100889837	CDC14A	TYREKLSGF, YREKLSGF, WRAKISTMSTY	2	12:122018740--12:122018773	KDM2B
FLFSFQNHIRI, FSFQNHIRI	2	19:12692176	ZNF490	GLALALALA, GLALALALALA, GLALALAL, LLWMGLALA,			
TLAQWPVIAA, AQWPVIAA,				LLWMGLALA, GLLWMLGALA,			
TLAQWPVI, ALTLAQWPVI,	2	5:137803132	EGR1	LLWMGLALA, GLLWMLGALA,			
TLAQWPVI				LLWMGLALA, GLLWMLGALA,			
VVDYGTRLFHL	2	5:109124646	MAN2A1	KQICIPRSLSV	2	3:170013719	PRKCI
FQEPMTGFF	2	16:28847350--16:28847356	ATXN2L	GRALRALMAM, LRALMAMAL, GRALRALM, ALMAMALA	2	17:73501069	CASKIN2
KTSTIALFK	2	8:25154087	DOCK5	KTQKVQMKF TEFPEILWHL	2	3:178938934 17:41610700	PIK3CA ETV4
LARSVFVLSM, TPPSCLARVS,				RRRVRQCSL, RRRVRQCSL RRMGWPWA, RRMGWPAWM	2	11:64572093 14:24532703	MEN1 LRR16B
LPTPPSCLARV, ARVSFVLSM,	2	20:3215484--20:3218646	SLC4A11	KYMSQFPKVWI, YMSQFPKVWI, SQFPKVWI, SQFPKVWI, SQFPKVWI	2	2:158142577	GALNT5
RVSFVLSMSTL, LPTPPSCL,				RSPCLLLLWLV SEILGETSLM, SEILGETSL	2	3:66550762 22:29091840	LRIG1 CHEK2
RVSFVLSM				FIFPNQNFQDL CRRGLEQLL	2	11:12234929 19:17393530	MICAL2 ANKLE1
HADRGAFAL	2	7:100465746	TRIP6	SLRKQLLFLV RIDQICSL, RIDQICSLM, RIDQICSLMAV	2	5:57753012 17:33482349	PLK2 UNC45B
FFLWRSLRLV, FFLWRSLRL,				SRILSPYCI RIRSEGDDQL, RIRSEGDDQLL	2	19:56244405 19:51843808	NLRP9 VSIG10L
RSFRLVRSRLY, FRVLVRSRL,	2	14:39746268	CTAGE5	NEQKYADVV VALTSSSAI, SSASISPV, RVALTSSSAI, LTSSSAI, LTSSASISPV, SSSASISPV,	2	13:114774873	RASA3
FRVLVRSRLYV				TSSASASISPV	2	15:41146715--15:41146120	SPINT1
LPSPGQLQ	2	6:149772190	ZC3H12D	GADGEPALA LQRHVCNI, HVCNIHNK	2	2:36825137 3:168812978	FEZ2 MECOM
VAASPRRM, LVAASPRRMCL,	2	15:41146715--15:41146120	SPINT1	FPAAPSGL	2	20:23066469	CD93
VAASPRRMCL, LVAASPRRM				LRPLHVPRV, WRTAVLLRPL	2	11:76751604--11:76751585-- 11:76751585--11:76751542	B3GNT6
VAELQARLAAL	2	19:7747293	TRAPP5	SLDPPAQV LLQMVPSCM	2	2:104175781 3:168833257	PSD MECOM
FEARHLGSL	2	11:76371564	LRRC32	TVIAASWRV, WRVGGPLGSL, VIAASWRV	2	1:35370731--1:35370639	DLGAP3
HREQRAAABL	2	2:17710476	NHS	FHTGNTSF, HQRFTGNTSF	2	19:52496382	ZNF615
MSRAVCLPV, RAVCLPVPCV	2	17:56729347	TEX14	IFMENIML IINMALSEY, IINNIMALSEY	2	16:5105344 14:91110426	C16orf89 TTC7B
TRRRSRRSTSF, RRRSRRSTSF,	2	16:89598371	SPG7	SMQLELASL ARYCADACGEL	2	9:139694569 14:74058832	KIAA1984 ACOT4
RRRSRRSTSF							
HTHPHQPL	2	11:67812475	TCIRG1				
PEWGRVSL	2	17:7462459	TNFSF13				
AAALDRFVARK,							
KLQPRKEFVEK, ALDRFVARK,	2	12:113376388	OAS3				
AALDRFVARKL, AALDRFVARK,							
FVARKLQPK							
VRQFOLKL VRQFQLKIAEL	2	4:6086661	JAKMIP1				
QMIWAFYLK, MIWAFYLK	2	1:35972480	KIAA0319L				
KLYLKNMB	2	19:52888438	ZNF880				
QLOPQPL, QPQPLQPL,							
APTDRQPL, QPLQPTLQPL,	2	17:70120194--17:70119909	SOX9				
ALAPTDRLQPL							
ELQARLAAL	2	19:7747293	TRAPP5				
KYLLTSMVY	2	2:X:154088801	F8				
HRPPWHGLM, LMAADRAW	2	7:128852004	SMO				
AEVHGSEPH	2	19:55815035	BRSK1				
HVTPKTPLPM	2	10:75407290	SYNP02L				
QENNPKLECL, QENNPKLECLL	2	1:214814828	CENPF				
RQSIWDVI	2	2:215846946	ABCA12	RRRVMLIV, RRWRRRVMLI, RRWRRRVML, RRWRRRVMLIV,	2	20:3765819	CENPB
CEDTRAGLW	2	8:145641328	SLC39A4	RRWRRRVMLI, RRWRRRVMLIV, RRWRRRVML, RRWRRRVMLIV,			
LSHLYLGNCN, ALSHLYLGNCNK,	2	3:49756397	AMIGO3	RRWRRRVMLI, RRWRRRVMLIV, RRWRRRVML, RRWRRRVMLIV,			
YLGCNKLASF, HLYLGNCN				RRWRRRVMLI, RRWRRRVMLIV, RRWRRRVML, RRWRRRVMLIV,			
AYIDRDRKIL, AYIDRDRKI	2	11:72301503	PDE2A	KRRWRRRVML IAIKNITASY	2	18:21134924	NPC1
LSHQVPIL, YLSHQVPIL,	2	13:31903690	B3GALTL	TEYSEDNLLFW, SEDNLLFWLA	2	6:153345514	RGS17
YLSHQVPILF				HLRDDIKEYK REAAATRAEV	2	9:95485059 19:55815035	BICD2 BRSK1
SHILLWL, SHILLWL	2	22:31485922	SMTN	ISNEFNSQNLV QPWDPKGPKPV	2	15:25616254 19:55869880	UBE3A FAM71E2
DEAGTPEGHW	2	1:153906129	DENNND4B	AYLDDGLVRL APVGVSMSCL	2	19:17837512 17:48433967	MAP1S XYLT2
COLVNQNLSQLQV	2	2:223423432	SGPP2	NRHFKTLQI, QIDQFTVTHLL, LQIDQFTVTHLL	2	X:71427103	ERCC6L
GMNWRPILTI	2	17:5775539	TP53	CMYQACNY, APFYKRCM ALGGGAWEI	2	11:1027811 11:69063724	MUC6 MYEOV
RASCASSASK, ASCASSASK	2	20:23066469	CD93	ALAPQAWWWPAR KMLSVHN1	2	3:114058003 17:57952010	ZBTB20 TUBD1
ELLVVGRY	2	17:18918510--17:18918511	SLC5A10	QRPSPRRL, QRPSPRPRL, RLLTMPTGL	2	7:97933623	BAIAP2L1
GRDPKPTL, GRDPKPTPLT	2	19:7592423--19:7592444	MCOLN1	RVLGKDCNCK, KTSFFFEARSK, KTSFFFEAR	2	5:111576501	EPB41L4A
REFRGLSDCLV	2	2:X:118603984	SLC5A25	SYRVITSKYL MPGAYIYA, YTENNNMPGAY,	2	X:39913253	BCOR
SARLRAEM	2	15:83680287	C15orf40	MPGAYIYAVSA, MPGAYIYAV RLFNVTPR, RLFNVTPR	2	4:134072724	PCDH10
FYVGWAEATV	2	16:28847356--16:28847350	ATXN2L	RLFNVTPL, RLFNVTPR FSLRLFNVTPL, SLRLFNVTPL	2	21:45656840	ICOSLG
NRVPRAATSRM,	2	4:166915629	TLL1	AAMWNRCADL WRENTRARRGM,	2	12:52283257	ANKRD33
SRMERIWPGGV				RRENTRARRGM RNLLKLHFTK, KLKLHFTKSHK,	2	6:33179125--6:33179214	RING1
SQRGHPIRTAL	2	1:228559450	OBSCN	KLKLHFTKSHK, KLKLHFTK FHKDPNVNML	2	X:16870700	RBBP7
FLKNTPNDAZY	2	12:20591163	GCN1L1	RANPYISVSL TRDAPGLRV, TRDAPGLRVPL	2	11:61615706 17:21318698	FADS2 KCNJ12
RAFAESHNQI	2	4:88106626	KLHL8	KSSSASSL, LVAASPRRMCL, LVAASPRRM	2	12:58025813	B4GALNT1
LEKQJQICPRSL	2	3:170013719	PRKCI	MLARPIL	2	8:28210809	SPINT1
SSSSAGLLK	2	22:28389367	TTC28	WLRDELANM VVDPPPSSLT, FVVDPPPSSL	2	14:104124001	ZNF395
NSMLVFLKKSK	2	1:35972480	KIAA0319L	FVKTQLIPL	2	7:126173278	GRM8
WAWPGPSCF	2	16:88599701	ZFP51		2	11:123513183	SCN3B
YAAAYSGRKL	2	17:19729452	ULK2				
RYGGGGRLVI, RYGGGGRLVIV	2	17:18918510	SLC5A10				
RLWTIREFTL, FTLERSLMNV,							
LERSLMNVM, FTLERSLMNV,							
REFTLERSL, FTLERSLM,	2	3:44636243	ZNF660				
REFTLERSL, RLWTIREF,							
LERSLMNV, LERSLMNVMVS							
PYPGLQCL, PYPGLQCLP	2	12:123351799	VPS37B				
TSMDSYRRV, RVIPICALYV	2	5:138643806	MATR3				
RPLCGRPL	2	7:128587381	IRP5				
RIHEITHIGEK	2	19:11978669	ZNF439				
SPYSQCQAEGPC	2	15:102264476	TARSL2				
RAAAALRAV, LTRERAAAAL,	2	19:50158042	SCAF1				
TRERAAAAL, AAAALRAV							
NEQSLPHL, NEQSLPHLI	2	3:24231684	THR8				
YTSTLMLGGAM	2	9:37442272	ZBTB5				

SPFRKHFRPGT, SPFRKHFRPG, MENISPFRKHF, NISPFRKHFR, FRKHFRPGT, ENISPFRKHFR	2	17:7577065--17:7576881	TP53	ROYMDKIIILTI, YMDKIIILTL, YMDKIIILTI	2	17:29858706	RAB11FIP4
LLPTASFL, SLLPKNPRRTL, TLLPKNPRRTL, FLGWASAQTA, FLGWASAQTL, LLPKNPRTL ETATAGAPPA, ETATAGAPPAL	2	17:73501069	CASKIN2	QWVMHLCW, NQWVMHLCW LRLLLLPLP, MPPSGLRLLL	2	2:230661315	TRIP12
VFSPLSLQNHYL, FSPSLQNHYL, GVFSPLSLQNHY	2	17:42232679	C17orf53	RELEKKILVF, LEKKILVF QEQAARQAA, QEQAARQA	2	19:41858921	TGFB1
RQMGSSLLVSM, VSMKNPYHL, RQMGSSLL, SMKNPYHL, KRQMGSSLLV	2	10:63958149	RTKN2	VSADSGLLV, SADSGLLV, VSADSGLL	2	1:37947226	ZC3H12A
AMAPETTLW, MAPETTLW SLRTDCLLAJV, SLRTDCLLAJV	2	22:20130522--22:20130515	ZDHHC8	SWAPKTSSL LEYINLVC	2	17:70117710--17:70117715	SOX9
QMIWAFYLKMM, LQMIWAFYLKMM, YLKMMYHIF, QMIWAFYLKMM	2	5:57753012	PLK2	AVAALQSP, RAGNPVAAL	2	6:56915605	KIAA1586
AAAAALLLF, AAAAALLLF LFSSVVYF, LFSSVVYF	2	1:35972480	KIAA0319L	KMKKAHFLKTW, FLPSSAQKM	2	3:139258508	RBPI
MSPPGRTQL, SMSPPGRTQL, KSMSPGRTQL	2	2:43452439--2:43452464	ZFP36L2	FPERSVRVRM, RSRVRRML, RVRRMLAGSV, FPERSVRVRML, RSRVRRMLA	2	16:624114	PIGQ
MQWNKKMAM, TMQWNKKMAM	2	1:111216188	KCNA3	MGNNGGASNLNI	2	2:242149010	HDGF
VRRKVPVRAWL, RRKVPVRAWL	2	12:124848228	NCOR2	TMSKMKMGRY, MSKMKMGRY	2	7:100285170	KIAA1586
NRKPHTPF	2	3:77657038	ROBO2	YAALLTKTNQI	2	12:41967381	CDH1
TEYARVTF, TEYARVTFSTV	2	5:174156219	ZFP36L2	TRMPGIPAGL	2	17:61781804	PDZRN4
YRPAGRRDVTH, RRDVTHGIL, GRDVTHGIL	2	7:139056179	MSX2	KRNLYSELTM, KRNLYSEL	2	1:39759288	STRADA
RTTCHSIL	2	18:908273	LUC7L2,	MSISLVMAI, YMSISLVM	2	2:241569692	MACF1
AAAFFNFVM, LAAFFNFVM	2	12:40713870	LUC7L2	AAAKARDREL	2	19:2226772	GPR35
KTAGNQISLQR, QFYSPNIMAL	2	6:90415853	PIGK	SRDGPARYRL	2	X:153039502	DOT1L
ILDNYLQADTV	2	2:152390743	CASP8AP2	DPQARAVHL	2	1:207195389	PLXNB3
WQWGGAEITL	2	1:77627340	WNT9A	LLSSSWAL, ALALLSSSWAL,	2	2:239050033	KLHL30
YQMDDVYKEPL, HIYQMDDVY, HIYQMDDVY	2	6:90578192	ADAM9	ALLSSSWAL	2	12:14019044	GRIN2B
HYQLRNVRWERL, LRNVRWERL, YQLRNVRWERL	2	1:228111954	GOLPH3	IPASLNDTAL	2	10:15255561	FAM171A1
LATADLLL, NLATADLLL GFLATAWLTLT	2	8:38874818	F2RL3	FYTLYSEGVL	2	5:140481456	PCDHB3
FPVDQFFLKM	2	19:17000632	PTPLA	WLPSRQKTL, LLLASGAPRY, WLPSRQKTL, LPSRQKTL, WLPSRQKTL	2	16:30505572	ITGAL
MRWGRLPL, LRPLGPGAAAL	2	10:17659131	DHX57	KYEQLALDL, KYEQLALDL, QLALDLFSECY, YEQLALDL, REAKYEQLAL, REAKYEQLA, REAKYEQL	2	11:2435956	TRPM5
1:239074185	2	1:220267581	IARS2	FAAARVDVF	2	2:179472135	TTN
				TCFTCDVFWL, CFTFCDFVFWL, CFTFCDFVFWL, RFLCFCTCDFV, TCFTCDVFWL, CFTFCDFV	2	11:111742146	ALG9
				SAPCLHGASCL	2	9:126128253	CRB2
				RRPIAQWHPL, ARRPPIAQWHPL	2	11:1858572	SYT8

VVDIPLFFSFL	2	17:67260957	ABCA5	PTAPHMEY, IPTAPHMEYI, MIPTAPHMEY, RVIMPTAPHM	2	11:75298129	MAP6
SRWSASGWSL	2	17:73501069	CASKIN2	HPWGPSCLL, LPHQLHPW, HPWGPSCLLCL, HPWGPSCL	2	1:154942911	SHC1
FTSVPPGF, FTSVPPGFKM	2	20:30789952	PLAGL2	ALAGPVLTTL	2	9.98209593--9:98209617	PTCH1
HLAVRTSMLTL	2	1:204228411	PLEKHA6	MGSQSGAWTM, TRMGSQSGAW	2	7:100285170	GIGYF1
ASIFNNFVL, KMASIFNNF,				LYGHTSTVHCM	2	4:153249384	FBXW7
MASIFNNFVL, KMASIFNNFV,	2	11:66334760	CTSF	SASCSSSSL, SSSFLSLVM, CSSSSFLVM, SFSLVMTL,			
KMASIFNNFVL, VKMASIFNNFV				SASCSSSSLV, SFSLVMTLTL, KSTSACSSSF, SFSLVMTLTL,	2	11:970195	AP2A2
TLIDDDNPCL	2	9:137019598	WDR5	TSASCSSF, SSFSLVMTL, SASCSSF, STSACSSSF,			
FCSGVLSGFW, SGVLSGFW	2	8:120220776	MAL2	FSLVMTLTL			
FWKLDTLQT	2	3:62464048	CADPS	LEAWRVSPRPL	2	13:111368164	ING1
KAASFPCFL, FPCFLHSTL,	2	2:204305618	RAPH1	EIVFLGPK	2	17:42818751	DBF4B
ASFPCFLHSTL				FMHSAAHLAL	2	20:62421840	ZBTB46
		16:88599703--16:88599701--		SLLSRMPAR	2	13:4205516	FHOD3
GEARAAPQNG	2	16:88599696--16:88599703--	ZFPM1	KLEEGWGV	2	1:28920547	RAB42
		16:88599696--16:88599701		RRFELRRV, RRVGGQRPL	2	8:145106939	OPLAH
HPAWLSP1, ISACPRLLPY,	2	17:40937417--17:40939870	WNK4	AQAQRAWWVL	2	20:61870727	BIRC7
ISACPRL				TRDERTHKI	2	6:159636168	FNDC1
APTHQQPFP	2	2:108998302	SULT1C4	TWMRPPRSLL, TWMRPPRSL,	2	22:18300932	MICAL3
YLKIKHLLLK, KIKHLLLKR	2	5:112175594--5:112175596	APC	WMRPPRSL			
DEAPPPLGSW	2	9:35091693	PIGO	EEDPLWPSTAM	2	2:136566201	LCT
SYIEVVNV	2	5:140558318	PCDHB8	STAKRLEAAFR, SLSASTAKR	2	8:65493429	BHLHE22
SRQSIWDVI, SRQSIWDV	2	2:215846946	ABC12	SVAPATLPCR, SVAPATLPCRR	2	22:20130522	ZDHHC8
ERIHYYKL, AEKERIHI,				ITIQQSIAF, SANANVTI,	2	10:7608128	ITIH5
AEKERIHYKL	2	17:263194	C17orf97	SANANVTI			
FSVMPIMPM	2	2:1652960	PXDN	AVRGCSRGPV	2	1:161696782	FCRLB
HLLERVNWMW	2	3:154862150	MME	MDFTDIILKF	2	22:25315953	SGSM1
CQEVFVGCVERY	2	6:152470650	SYNE1	VQDCSFVV	2	3:32355459	SUSD5
KISPLITWTY	2	14:74060514	ACOT4	QRSVLTKHQII	2	10:38120580	ZNF248
				YYWDASACVI, YYWDASACV,			
TMLRNWRA, FIWPSFMVMTM,	2	7:21942715	CDCA7L	LYYWDAASACVI, YYWDASACV,	2	1:205740743	RAB7L1
SFMVMTML, FMVMTMLRN1,				YYWDASACVIM			
MTMLRNWRAY				SRDVVVVKVTM	2	5:52214576	ITGA1
FLSELGVTF, FLSELGVFTI	2	17:59857686	BRIP1	PMFLYLYY	2	8:120220776	MAL2
				SRHHSRDV	2	10:18828493	CACNB2
SVRSPPLLMKH, RSVRSPPLLMKH,	2	2:179659911	TTN	SFLSEAHF	2	3:175345104	NAALADL2
LLMHKTQASTV, SVRSPPLLMH,				FTKDQNQVHI	2	5:64893000	TRIM23
RSPLLMHK				QEEAAAAAAA,	2	1:11710779	FBXO2
SPAPSPLATPL	2	1:54605318--1:54605319	CDCP2	EEAAAAAAAAYL			
FRYLLAVLIL, FRYLLAVLILF,	2	5:74324983	GCNT4	EEWGGEAH	2	14:24040436	JPH4
FRYLLAVLIL, FRYLLAVL							
FAICFVGCI, FAICFVGIF,	2	6:166743666	SFT2D1				
FAICFVGCF							
FEPSIRGSVL, FEPSIRGSVLL	2	17:61560495--17:61560426	ACE				
SQFGGVHL, FSQFGGVLL							
RRFSQFGGVLL, FSQFGGVHL	2	6:24437388	GPLD1				

VPREKRAQW, VPREKRAQWV, QWWSVATL	2	9:137677855--9:137688741	COL5A1	VIDKMNKL KIIQNEGIK, IIQNEGIK RRLGHNWSI, LRLGHNWSI LLMGEITAM TTMECPVP ILNGISAL, YILNGISALR,	2	15:62233987 7:87479241 1:17266586 6:152644655 20:57767560	VPS13C SLC25A40 CROCC SYNE1 ZNF831
LLHSWISL, CLLHSWISL	2	1:35370639--1:35370731	DLGAP3	KQIRYIILNGI IIDNLHHV RAVARMGQQMM, RAVARMGQQGM LRREKSNL AASSRAQVLAL SLKSHLKY	2	7:22767227 12:78591108 17:79803764 1:17266586 6:5260936 2:179529600--2:179528765	IL6 NAV3 P4HB CROCC LYRM4 TTN
KTSNHIF GVFEYHNWVY, WVYDEEATDLL	2	10:25861759	GPR158	NOVA1	2	2:179529600--2:179528765	ZNF831
YADAGILY	2	1:197073231	ASPM	LENG9	2	17:40939870--17:40937417	WNK4
RLVSTLNFS	2	10:94243045	IDE	FBXO34	2	9:94486762 3:33255459	ROR2 SUSD5
YQNNEEEEAIY	2	4:27019558	STIM2		2	20:31384651	DNMT3B
STPAGFHIPPV	2	12:123351891	VPS37B				
TKDVPFFK	2	6:151673370	AKAP12				
IRAKTASI	2	14:27066542	NOVA1				
FFRFRGRGL, VFRFRGRGL	2	19:54974318	LENG9				
FATWSALV, FFFATWSALV, FFATWSAL, FFATWSALV, FATWSALVRLF	2	14:55818554	FBXO34				
VRHHPCWSP	2	5:14487781	TRIO				
HVVDDITHSPA	2	2:74590132	DCTN1				
ARLARTAI	2	2:43452623	ZFP36L2				
VTYHHHLY	2	19:33202775	NUDT19				
ATEHSSLSLH	2	17:72350412	KIF19				
KOLKPSEKYL	2	5:112175594--5:112175596	APC				
FQISTYQA, LLAVVIQFQI, STYQAQLRI, LAVVIQFQI, STYQAQLRI, CLLAIVIQFQI, FOISTYQAQL	2	5:57753012	PLK2				
KITTANVVY	2	14:30100143	PRKD1				
ALMRSHWPSA	2	11:64457919	NRXN2				
YQAQLRISL	2	5:57753012	PLK2				
FATANRGNGL	2	1:246670481	SMYD3				
LDFDVTNDQI, NQIYWTDI	2	12:12317235	LRP6				
VRGCSRGPVL	2	1:161696782	FCRLB				
MLDMAECEGIV	2	1:29641954	PTPRU				
MVRWAAASKL, MVRWAAASK	2	19:52715982	PPP2R1A				
FLNPRKATQSF MEHRGPPQNI	2	6:80383444 X:112065639	SH3BGRL2 AMOT				
YMQPPPRHYL, MQPPPRHYL, YMQPPPRHY, LYMQPPPRHYL, HYLCSSM	2	11:6590002	DNHD1				
HSHKRNQCLK	2	15:51860704	DMXL2				
MLHSCRQK, EQMLHSCRI	2	X:56591874	UBQLN2				
ALSPPEPPAYSL	2	X:3631167	PRKX				
RQNRFASSK	2	8:109796543	TMEM74				
VEGQIHKLCL	2	13:31232879	USPL1				

LMVWWVHQV, MVWWVHQV, FSYLMWWVWV, YLMWWVHQV, AVEFSYLMVWWV LLPSAPAHVHL	2	9:19528054	SLC24A2	HMPRTPALCY, ARPWFPRHM, RHMPRTPAL STPPGPGPVAV WSPTHSAQSPV, HSAQSPVPL, AQSPVPLRIHF INDPRKNPTLW	2	19:50926264--19:50926165 20:21493012	SPIB NKX2-2
APGERRLGF, APGERRRLGFL	2	10:17659131	PTPLA	LEIKPYST, LEIKPYSTKKM ATCGCPSSRR, ATCGCPSSR	2	5:173317785 17:70119913--17:70119870	CPEB4 SOX9
ARPWSSAPTRM	2	19:5231449	PTPRS	FAFNDFQFQJQL APAFTGTCGPLA, APAFTGGPL	2	3:164737505 22:28196403	SI MN1
MMGQNGNLYFA, MMGQNGNLYF	2	X:153136382	L1CAM	FPSQREELRAV KLAICETPAPL	2	19:55598724 21:35183447	EPSL1 ITSN1
HPSPRSTWTW	2	19:17838753--19:1783835	MAP1S	FLTDREVQL, LTDREVQL	2	2:11362292	ROCK2
FDFKLQDV, FDFKLQDVSSV, FSHKFDPKL	2	2:32475708	NLRC4	RVVGEVFVPR, VRSRVVGEVF	2	20:49197838	PTPN1
TRPSRAREAL	2	9:98211549	PTCH1	RAAAGVSV, FAATRAAAGV LVRQQRLLR	2	20:31384651 2:43524911--2:43452464	DNMT3B ZFP36L2
EWKVVKPPEL	2	15:450033781	B2M	SRWWAPSRLW	2	22:50900047--22:50899955	SBF1
LLGDPFPL, GLLGDPFPL	2	19:10116508	COL5A3	QRLLYVYL YIETNVF, LYLDKFVQLR, LYLDKFVQLR	2	18:12699829	CEP76
HLLLHTEV, VNHTHLL	2	7:99145140--7:99145142	FAM200A	GRRLGCRV, GRRLGCRVQAL, GREARRRRL, REARGRRL	2	9:140100317	NDOR1
YGHTSTVHCM	2	4:153249384	FBXW7	FQILFTMTL, FRLFIQNLFF, FQILFTMTL, ILFTMTLI	2	3:98506942	ST3GAL6
TRAGTRGSVL, TRAGTRGSL	2	16:2059622	ZNF598	WRTAPLLASL LYILPRKVLQ, LYILPRKVL	2	1:27100176--1:27100350 5:112175756	ARID1A APC
TASPSSSF, CTASPSSSF, CTASPSSFL, FLPVPTGRSL, ASPHSSFLP, HSSFLP,	2	17:79803764	P4HB	FFHAMHV, MVFFHAMHV, MVFFHAMHV	2	4:4285458	LYAR
SRNYNRRYQI, NYNRYYQISI, YQISICPL, SRNYNRRY	2	10:121341501--10:121341690	TIAL1	YPMSSGL YVSATTGAI	2	19:39663913 5:174938494	PAK4 SFXN1
RRYQISICPL	2	2:112922646	FBLN7	AWVPAPAGWDL, AWVPAPAGW	2	18:3452223	TGIF1
YLVDHKVFH	2	6:32811743	PSMB8	FILGRNRTDVM GTPPPWMPE	2	19:52888438 10:100186987	ZNF880 HPS1
CDLQSSLY	2	2:239039057	ESPNL	MASGPASSW GETGRPTLNQM	2	3:52550119--3:52551362 17:48619249	STAB1 EPN3
VEEASVPA, LEVEEASVPA, LEVEEASV, EEAASVPA, VEEASVPA, LEVEEASVPA, EEASVPAAEPA	2	19:17838385--19:17838753	MAP1S	MQHVVWRKVDTV, MQHVVWRKV	2	3:9426224	THUMPD3
SVPGVSPV, DHSVPGVSPV, HSVPGVSPV	2	19:17838385--19:17838753	MAP1S	DRSPQAPL ASRVWPSTTTL, SRVWPSTTTL	2	X:129190011 6:13206135	BCORL1 PHACTR1
GSVEVIQTL	2	19:51217155	SHANK1	REAFLEQMMGL, LEQMMGLEGAV	2	9:13948049	LAMC3
QAADVHTTEL, AAVDHTTEL	2	9:95480987	BICD2	AEFRCPGSL, AESPGAEF	2	17:7462459	TNFSF13
IQIGILIGI, WHIQIGILI	2	12:66622063	IRAK3				
EESLPGAM	2	5:137803132	EGR1				
VYYEHELEKAAM, YEHLEKAAMH	2	12:101705568	UTP20				
FVSDAVATY, FVSDAVATYY, TYFVSDAVATY	2	12:133249847	POLE				
FALRPSTV, FALRPSTVPF, STVPFLTRAV	2	15:75942664--15:75942736	SNX33				
DRSPQAPLRL	2	X:129190011	BCORL1				

MRCSTWTS	2	19:16314384	AP1M1	RMYGWNFRV, KRMYGWNFRV	2	14:56137474	KTN1
NMQTIWVTGRK, VEERRNMQTI,	2	3:121209199	POLQ	APRSTSRT, RPTGRPAT,	2	16:2059622	ZNF598
QTIWVTGRK, RRRNMQTIWV,				RPTGRPATVA			
MQTIWVTGRK				AEIWFLGS, AEIWFLGSSA,	2	9:139945517	ENTPD2
LSYHKGLAWAR, KIGLHSYHK,	2	6:90387403	MDN1	AEIWFLGSA, AEIWFLGS			
HLAKIGLHSYHK				SQEEMFSQALL	2	15:91304139	BLM
TELGFTLLKL, TELGFTLLKL,	2	8:67752239	SGK3, C8orf44-	RIYTINYY, ITNYYYGNTLV,	2	1:161954657	OLFML2B
TELGFTLL			SGK3	RIYTINYY, YITNYYYGNTL			
NFIDSKEVYR, KVYQNFIDSK,	2	10:50684305	ERCC6	LRLRRMHV, LRRMHVCGSSL	2	16:1273490	TPSG1
FIDSKEVYR				STWHSVLM, RSTWHSVLM,	2	16:50745399	NOD2
FWPQRCAQV, FWPQRCAQVL	2	6:46656871	TDRD6	RSTWHSVL			
RRWRCSQTTSL	2	5:131042147	FNIP1	SLKNLSWK, QSLKNLSWK,	2	7:26245989--7:26245999	CBX3
KLYCLIK, IQKLYCLIK	2	10:128908585	DOCK1	QSLKNLSWKK, RVKLLKRQSLK, SLKNLSWKK			
ALQDЛАПАПЛ, ALQDЛАПА	2	18:72998443	TSHZ1	VFKFCAPRLW, KFCAPRLW	2	1:201983066	ELF3
WPARRGPL	2	3:114058003	ZBTB20	LENRDPLDSRV, WMSQVLDSDL,			
RRTSKWMEMI,				RVLRGSRRA, CLWMSQVLDSDL	2	3:48612871	COL7A1
MRRTSKWMEMI,	2	17:5036224	USP6	KALTTRRSSDL, LRSPSPKAL	2	11:618971--11:618999	CDHRS
RRTSKWMEMI, MRRTSKWM,				HRLSLSPVDDLL	2	15:94841631	MCTP2
MRRTSKWMEMI				MRATGPPPPHY	2	19:39330958	HNRNPL
GRVCLFL	2	3:65346916	MAGI1	FLSPWPSPAI, WPSPAIPL,			
SPFRSFGVSAS, MENISPFRSV	2	17:7577065--17:7576881	TP53	WPSPAIPL, SPWPSPAIPL,	2	6:33263965	RGL2
LYQESLPTL, LYQESLPTL	2	6:10557410	GCNT2	FLSPWPSPAI			
LYQESLPTL				MTLPAPTACSR	2	22:20130522	ZDHHC8
MQDPPLL	2	3:168833257	MECOM	LVIDTMTEV	2	13:46288409	SPERT
NRKIINQIL, NRKIINQIL,	2	16:46836877	C16orf87	EMEDQKHSH, LLEMEDQKHSH,	2	1:209948748	TRAF3IP3
NRKIINQIL				MEDQKHSH			
KSSNFRRYK, SSENFRRYK,	2	21:38302646	HLCs	IYWTRGRKL, IYWTRGRKIDPV	2	4:123283194	KIAA1109
LLKSSNFRRYK				SSPPPLLL	2	8:144886852	SCRIB
KYLMKPPL, TWPLKYLM	2	12:52379121	ACVR1B	QPILLPAHHPL, QPQLQPTLQPL,	2	17:70120194--17:70119909	SOX9
FTLPFNML, FTLPFNMV	2	18:43316498	SLC14A1	QPPTLQPL, LPAHHPLTV,			
MEQGHQLM	2	8:125109516	FER1L6	LPAHHPLTVRL			
HLVGIALPEVM	2	1:46120890	GPBP1L1	CRKSDASSL, CRKSDASSLM	2	11:9172291	DENN5A
LEQLLSQGA	2	19:17393530	ANKLE1	YGDIIQDF, YGDIIQQDFL	2	3:160804109	B3GALNT1
FTAQYYRLQF, AQYYRLQF,	2	17:29120666	CRLF3	RTMEDAAHM	2	3:52551362--3:52550119	STAB1
FTAQYYRL				MTMVVWMAV, GTMTVVWMAV	2	12:57595335	LRP1
VAPQQLL	2	2:43452464--2:43452439	ZFP36L2	ALMVVPALL, TAGAPPAL,			
KENVENRAEM, AEMALLDSL,				TATAGAPPAL, ALMVVPALLA,	2	7:100285170	GIGYF1
VENRAEMAL, AEMALLDS,	2	3:48612871	COL7A1	TATAGAPPALM			
AEMALLDSL, VENRAEMALL,				WVADSNVFTK	2	1:220311332	IARS2
AEMALLDSLEP				TSWPSALAY, RTSWPSALAY,	2	5:140176838	PCDH2A2
VRAAAWASAV, QQVTGIVWAV	2	17:73501069	CASKIN2	RTSWPSAL, RTSWPSALAY,			
KNISLIVGMI, ISLVIGMI,	2	5:5486894	KIAA0947	TSWPSALAY			
VKNISLVI							
FGAGETGRPTL	2	17:48619249	EPN3				
MFLKKTHQL	2	16:15131990	NTAN1				

STVASSHRFCF, STVASSHRF	2	7:91732038	AKAP9	RRPRCWVL, RRRPRCWVL,	2	2:220494118	SLC4A3
HPDQTSSVA, QTFSVAR,	2	13:36167523	NBEA	MRRPRCWVL	2	7:20371449	ITGB8
HPDQTSSV, QTFSVARSWR				CICLPAKR			
SRKEELMFFF, KEELMFFF,				MQMGGGAMNM,	2	1:35652836	SFPQ
SRKEELMFF, KEELMFFF,				YMDPRERDMQM,			
EELMFFF				MQMGGGAM			
PYPAASAPCW	2	22:20130522--22:20130515	ZDHHC8	YQHLPPIRF, YQHLPPIRF,			
HEAVEKEA	2	9:140918171--9:140918181	CACNA1B	AYQHLPPIRF, SETLAYQHPLI,	2	17:56385076	BZRAP1
STSSHLLL	2	22:31485922	SMTN	LPIRIFVALF, LAYQHLPPIRF,			
FIRPANQK	2	6:76623878	MYO6	TLAYQHLPPIRF, IRIPVALF			
VRMCNHPRKI	2	X:47083885	CDK16	RVAASAPL	2	11:76751585--11:76751604	B3GNT6
HLILLWLL	2	22:31485922	SMTN	QPPPTTSFPFL, FPFLSGLPG	2	19:39330959	HNRNPL
WKKASWVSSTL, KKASWVSSTL	2	5:13701536	DNAH5	AMDSSLRPVRL	2	16:30736370	SRCAP
SQGLFLPHCK, GLFLPHCK	2	10:85978958	CDHRI	KLVPVLVIL, LIADSSASV,	2	12:121432115	HNF1A
MRRQWSLWL	2	6:116836954	FAM26E	KLVPVLVIL, KLVPVLVIL,			
KLRLQLSQLGF	2	9:135947054--9:135947065	CEL	GLIADSSASV			
LRHKTSKGKICL, KTSKGKICL	2	2:109380686	RANBP2	KLITQIDAAI, KLITQIDAA,	2	14:45642287	FANCM
FAAEELPPETY, FAEELPPETY	2	6:128388794	PTPRK	KLITQIDAAIIL			
HLQPHDAL, RHLQPHDAL	2	7:42005678	GLI3	ASMERPVRCV, TRASMERPV	2	3:52550119	STAB1
VAAAHAVQRPV, RAVAAAHAV,				FSSKNPETI, YFSSKNPETI	2	7:121650934	PTPRZ1
SLFCLQRQAV, VQLGQHPPV				LQDQVHFV	2	1:87549881	HS2ST1
CPRITTWSA, LPCPRITTWSA	2	10:124895627	HMX3	YASSIRIHEI, NYASSIRIHEI	2	19:12637432	ZNF564
LAFNPGGVW	2	14:208466338	TEP1	WPPPQGAQV	2	19:1004710	GRIN3B
LEAFPLPRLS	2	19:1430254	DAZAP1	AGFAFSIFK, SVAAGFAFSIFK,			
WWASSTL, STPMWWASSTL,				SIFKSDIPF, SVAAGFAFSIFK,			
WWASSTL, TPMWWASSTL,				GFAFASIFK, KSDIPFIF,			
TPMWWASSTL,	2	11:46702224--11:46702223	ARHGAP1	FSIFKSDIPF, KSDIPFIFTL,	2	17:66881414	ABC8
VLLSRELF, QLWDVLLSR	2	1:15850613	CASP9	KSDIPFIFTF			
TRSLTLPNL	2	21:42551433	PLAC4	KEDIMCMY	2	16:2011238	NDUFB10
WMTDVHML	2	6:152688429	SYNE1	TPYQSQGFST	2	4:160277271	RAPGEF2
FWDGKIML, FWDGKIML,				ARLAALGRQV	2	19:7747293	TRAPPC5
FWDGKIML				KRKKKMCKV	2	10:29760116	SVIL
TAVTGSVSGMF, TAVTGSVSGM	2	12:27132834	TM7SF3	KMKTSTSL	2	5:57753012	PLK2
CLFFHWLK	2	1:171086513	FMO3	RLLPYPPFHVL, RLLPYPPFHV,	2	17:40937417--17:40939870	WNK4
KLFSELEFGK	2	10:97135757	SORBS1	LLPYPPFH			
KAPSLSQLFL, KAPSLSQLF	2	2:234420362	USP40	FVNYYITSFI	2	20:5170471	CDS2
FLAQHQII	2	19:56935058	ZNF583	WELASHCTA, WELASHCTAA,	2	2:148680663	ACVR2A
WLFREHCV, WLFREHCV	2	15:44811371	CTDSP2	WELASHCT			
QEVCMLFKV, QEVCMLFKVSM	2	5:148427439	SH3TC2	MVRTASETSL	2	7:4153028	SDK1
				SLMTNCFL, MTNCLSPIF	2	1:7687786	ST6GALNAC3
				TTSTTAKK, SSSMTSTTAK,	2	12:85521717	LRRQI1
				MTTSTTAKK, SSSMTSTTAKK,	2	8:22054260--8:22054259	BMP1
				MTTSTTAKK, SSSMTSTTAKK			
LRLVCLQSM	2	12:122723193	VPS33A	TYNKTDVATPF	2	3:125824614	ALDHIL1
WPPLRGQSEI, WPPLRGQSEIV,				LYLYYKDGSC	2	8:120220776	MAL2
LTAPGVCWPL, LTAPGVCWPLL	2	19:42861727--19:42861055	MEGF8	VLWPLRPPPL	2	5:137803132	EGR1
DPTRVMVPL, DPTRVMVPLV,				FATLALVI, FATLALVITL	2	14:4060514	ACOT4
VPLPVMSLL, LPVWMSLLERV,				AMAATTTTTI	2	1:176525981	PAPP2
LPVWMSLL, VPLPVWMSL	2	3:3067806	CNTN4	RLQLRLNPR	2	19:17836781	MAP1S
FAPFFVPMSL, SLACSITV	2	4:15067858	CPEB2	STTSTPCSSV, TTSTPCSSV	2	16:30041821	FAM57B
RTALGSQLP, LSATPSRVL,				LLHHHHHHHL, FLQCCHHHHL	2	6:102503432	GRIK2
LSATPSRV				VERNIOIQ	2	4:71527815	IGJ
SFQSHMM	2	1:228559450	OBSCN	KTQIGLAQY	2	8:121209180	COL14A1
KLLIQLPSL, LLQIQLPSL	2	19:12461221	ZNF442	SLTARVIAL	2	3:33414638	FBXL2
WTPEPDPTL	2	18:21662977	TTC39C	TREAKYEQL, TREAKYEQLAL	2	11:2435956	TRPM5
TTRLHTAHSTL	2	20:18163864	CSRSP2B	SRSAPPTRG	2	X:135956575	RBMX
EEKKCSPCPM	2	17:70120345--17:70120314	SOX9	RPSCAAGPSRAA, TPRATRPSAG,			
				TPRATRPSCA, TPRATRPS,	2	2:43452623--2:43452512	ZFP36L2
NEDRRQGVVVL, RRQGVVVL,				RPSCAAGPS, TPRATRPSC,			
DRRQGVVVL, RRQGVVVLHV,				GPSRRAARAST			
FTNEDRRQGVV,				SRMRPSWL	2	19:50926165--19:50926264	SPIB
RRQGVVVLHV, FTNEDRRQGV				HRHYASPEI	2	9:131370209	SPTAN1
RSLHHHHPL, SLHHHHPLPV,				ARGIAISVL	2	12:4919742	KCN6
SLHHHHPL	2	11:67812475	TCIRG1	RMDFDEFFITL, RMDFDEFFI,	2	12:132394804	ULK1
CSWFNGTEL	2	7:1097183	GPR146	DEFITLSSM, FFITLSSM			
TEYKLVVVGAA	2	12:25398284	KRAS	LLFLGVLLLLR	2	2:43452439--2:43452491	ZFP36L2
LRPKGFDTL	2	12:132475981	EP400	LDFTEMSL, LDFTEMSLYDL,	2	5:140626087	PCDHB15
MIVPSVGHHLW, HLWSSLF,				FETMSLYDL, FETMSLYDLDI			
TYQKFLCRNM				SQIYAVDYETL	2	16:1823024	MRPS34
RQFPNTSL, KROFPNTSL,				HSLSLSHSL	2	17:22350412	KIF19
RQFPNTSL, RQFPNTSLIGL	2	12:21630862	RECQL	NYRVVNMM	2	22:37237855	NCF4
HRLGAGSAV, HRLGAGSAV	2	19:18879553	CRTC1	EELLNTLYCEF, KEELLNTLY,	2	17:27014352	SUPT6H
YWDRVSRVSL,				EELLNTLY			
YYWDRVSRVTV, YWDRVSRVTV	2	1:200956173	KIF21B	TAAHVTD, TAAHVTDMVEV,	2	X:135956575	RBMX
LSFFYSSVL, SLSFFYSSV	2	11:124972065--11:124972035	TMEM218	ITAAHVTD, TAAHVTDMVEV,			
AWHSHPLTCSL	2	2:219920368--2:219920405	IHH	ASPSYWAAB	2	7:150034378	LRRG61
SRPSSGSL, FLSPCSPL	2	11:46702223--11:46702224	ARHGAP1	SPRETHLHTY, RRETHLHTY	2	10:114900984	TCF7L2
IREKYIEIDAL	2	14:92470812	TRIP11	SPREEAGQL	2	22:50528569	MOV10L1
RLFELSELRL	2	19:19040312	HOMER3				
KVFQSSSK	2	19:52918941	ZNF528				
LPQKKTPEM, MAVGGL SPL	2	1:207139176	FCAMR				
FNNETRFR, FNNETRFRV							
ERFNNETRF, FNNETRFRV	2	20:55803340	BMP7				
EELQVDQLWDV	2	1:15850613	CASP9				
ITSQINLI	2	1:200573037	KIF14				

KYTDNNIASL	2	11:17419957	ABCC8	CPRPLPGVAS, PRLPGVASL, TRRCPRLPVG, CPRLPGVASL, VPQEETRRCPRL, GVASLRLQRSL, SLRLQRSL, SLRLQRSLL, LPGVASLRL, CPRLPGVA	2	10:61828580	ANK3
SWLYAAATVCL,	2	5:131647886--5:131657935	SLC22A4	TQAQNIGAL, HEVQDKLREI HAVANPGLIY, HAVANPGLIY, AVANPGLIY, LIYLTGPY, VANPGLIYL	2	5:21752211 X:23751331	CDH12 ACOT9
YAAATVCL, SWLYAAATVCL,				FALELKVTLPV, FALELKVTL NRALHAAECL WELASVRQL, RQALCQLQW	2	6:36452576 9:13247771 8:145737816 7:100285170	KCTD20 MPDZ RECQL4 GIGYFI
LYAAATVCL, YAAATVCLL				EHDVALRREGL STFLTYMMCSY, YMMCSYMDNV, YMMCSYML, LTYMMCSYML, LSTFLTYMM, LTYMMCSYML, STFLTYMM, LTYMMCSY	2	8:87126109	ATP6V0D2
KHILQKHGK, ILQKHGNVPK,	2	20:56089711	CTCFL	GSMNRPL, GSMNRRPIL TRVMVPLPV, RVMVPLPVWM, TRVMVPLPVWM CISMITTISR, ISMITTISR MERLQAETKL KTFKFTSEL SRHCPRTTRTM FAMELLDGNLY RSFMDLKI, CSVRSFMDLKI, MISETCSVB IRELFILLQV, GRITIRELF, GRITIRELFIL, GRITIRELF, IRELFILL, GRITIRELF YQASSIPPTRL SRRAPRSPFL, SRRAPRSPF, RRAPRSPF VPASLFL, LRQGRGLLTLV, VPASLFLSTL ASMRMSMSATV RRTSASRWI LYWADTKL, YWADTKLSF, LYWADTKLSF YRQWTHRGRGL VERCPWKGI TWTRCVPW, SMTAWPPTW	2	17:7577548 3:3067806 17:48433967 1:108145748 1:232650179 20:49197838 14:79175866 5:72199545 15:40921506 X:153070087 11:618999--11:618971 11:68125269 7:149544824 10:29760116 17:39780697	TP53 CNTN4 XYLT2 PTPN1 RNXN3 TNPO1 CASC5 PDZD4 CDHR5 LRP5 ZNF862 SVIL KRT17
HILQKHGK				TRVMVPLPV, RVMVPLPVWM CISMITTISR, ISMITTISR MERLQAETKL KTFKFTSEL SRHCPRTTRTM FAMELLDGNLY RSFMDLKI, CSVRSFMDLKI, MISETCSVB IRELFILLQV, GRITIRELF, GRITIRELFIL, GRITIRELF, IRELFILL, GRITIRELF YQASSIPPTRL SRRAPRSPFL, SRRAPRSPF, RRAPRSPF VPASLFL, LRQGRGLLTLV, VPASLFLSTL ASMRMSMSATV RRTSASRWI LYWADTKL, YWADTKLSF, LYWADTKLSF YRQWTHRGRGL VERCPWKGI TWTRCVPW, SMTAWPPTW	2	17:7577548 3:3067806 17:48433967 1:108145748 1:232650179 20:49197838 14:79175866 5:72199545 15:40921506 X:153070087 11:618999--11:618971 11:68125269 7:149544824 10:29760116 17:39780697	TP53 CNTN4 XYLT2 PTPN1 RNXN3 TNPO1 CASC5 PDZD4 CDHR5 LRP5 ZNF862 SVIL KRT17
RAIGLWSVL	2	17:7402719	POLR2A				
CEICVKSHH	2	18:34205516	FHOD3				
SPFRTRPA, RPAFKKKI,							
SPFRTRPAF, NISPFTR,							
RPAFKKKIV							
SANTAPALPMV,							
MVVVTATRTTL, NTAPALPM,	2	15:41146120--15:41146715	SPINT1				
SANTAPALPM, SANTAPAL,							
VVVTATRTTL							
LLPEHIVVCSL	2	22:44583707	PARVG				
PPRRGRRTSL, DPPRRGRRTSL	2	2:43452491--2:43452464	ZFP36L2				
QPCAHGLWL, RVWPSRRQPC,	2	19:39330959--19:39330958	HNRNPL				
WPSRRQPCAH							
AYVYPDERTTL, VYPDERTTL,	2	4:140450287	SETD7				
VYPDERTTL, YPDERRTT,							
VVYPDERTTL, VVYPDERTTLY							
MTNYSIOFL, MTNYSIQF,	2	12:65134422	GNS				
KTPMTNYSI							
LADGATVRL, GPLADGATV,							
LADGATVRL	2	22:17590180	IL17RA				
WASGRITY, RLGWASGRITY	2	12:20522723	PDE3A				
DASGLLRPDAL	2	10:135012429	KNDC1				
SYKTSKRFSSL	2	19:57967221	VN1R1				
FIDIJKSFAL	2	8:19805714	LPL				
ELYDRGPPL	2	19:49850473	TEAD2				
VHVCRDHVF	2	X:53564590	HUWE1				
LELSKKKYFPL	2	1:100378027	AGL				
LLDPDWVCPPV	2	7:21942715	CDCA7L				
LAGVISALQTL, LAGVISAL	2	15:41099899	ZFYVE19				
TAVRIVAGPSV	2	15:41099899	ZFYVE19				
CPMRKKVQ, VPQETRRCPRL,							
SPSCPMRKV, CPMRKVQET	2	10:61828580	ANK3				
LQNDAPVPYK	2	19:48879376	SYNGR4				
HRPLAWGNINL	2	3:178927980	PIK3CA				

KFMMAFYLKY,				SPARASPARAS, RASPARASPA, SPARASPARA	2	11:117789327--11:117789342--	
KYTEKAWVMEL,				IRFLCFTF	2	11:117789346--11:117789345--	TMPRSS13
FYLYTEKAWV,	2	18:12699829	CEP76	RLISGSGPSL, YMPHHLRGRL, MPPHHLRGRL, SPSLWARV, AYMPHHLRGRL, SLWARVATPA, LISGSGPSL	2	11:117789327	
YTEKAWVMEL, YTEKAWVM,				QESVWVLGL, QESVWVLGLKG, QESVWVLG	2	11:117789327	
KYTEKAWVM				FLLPLVSS, FLLPLVSS, FLLPLVSSSTA	2	11:117789327	
SVVKPSLFTV	2	19:12461741	ZNF442	ARASGIEI, ARASGIEIYAV	2	1:43452623--1:434526433	INSRR
WRIGGGTPL, WRIGGGTPLSI	2	1:27105931	ARID1A	RLLFIIDSF, FIDISFEEL	2	20:43933021	MATN4
LRMPESSGHTM, PESSGHTM,				LPGQKYIVNV, IPDLLPGQKY, LPGQKYIV	2	19:56369444	NLRP4
TESPPAQAVML	2	10:102762593	LZTS2	QTAARTGAPY	2	1:43452623--2:43452512	ZFP36L2
GRAGARGL, GRAGARGLPAI	2	10:100186986	HPS1	SRMASTSC	2	1:43452623--2:43452512	TAPBP
CLLHPFSA, FSAACLLRQHL,				YQTPYFLTV	2	1:43452623--2:43452512	
LLHPFSAACLL, FCLLHPFSA,				IRAKTASF	2	1:43452623--2:43452512	
HPFSAACLL, FSAACLLR,				GEQIPGPL, GEQIPGPL	2	1:43452623--2:43452512	
HPFSAACLL				ALLLLL	2	1:43452623--2:43452512	
FQVTWLRP, RSFQVTWWL	2	12:132394804	ULK1	MTMMTRRTL, MTMMTRRTL	2	1:43452623--2:43452512	
CASSTSRSHHM	2	16:2059622	ZNF598	KSWIHFSRGVK, KSWIHSFR	2	1:43452623--2:43452512	
WSQLAGIPL	2	3:195453018	MUC20	NASDAYPSAF	2	1:43452623--2:43452512	
ISSFLNYF, ISSFLNYFV,				RAPRSPFLR	2	1:43452623--2:43452512	
VTISFLNYFV, SSFLNYFV,				RMVALVTGSV, ALVTGSVVV	2	1:43452623--2:43452512	
ISSFLNYFV, SSFLNYFVFM,	2	12:109947484	UBE3B				
VTISFLNYF, SSFLNYFVFKM							
KRFVFIGEAI, FVFIGEAI	2	7:21730393	DNAH11				
LQLRLEAPSW	2	22:38477342	SLC16A8				
GGYPAYSK, YPAYSKDSGL,	2	15:45003781	B2M				
YPAYSKDSGL							
FIWKRGNTL	2	6:37623535	MDGA1				
QRHSGKDWL	2	4:42581868	ATP8A1				
HSFENRAPQV	2	21:44323721	NDUFV3				
SRNPVCSCGANI	2	6:160511040	IGF2R				
FMEQLCTY	2	2:183960324	DUSP19				
LEKAIFIEV	2	2:234750348	HJURP				
LQIQTLLYGL	2	15:99679573	TTC23				
TATAACPM	2	22:20130515--22:20130522	ZDHHC8				
LSFASLPRSV	2	16:28847350	ATXN2L				
RTDGFAEAIHL, EAIHLQPV	2	1:186289548	TPR				
LLHQIIHK, FLLHQIIHK	2	19:38230342	ZNF573				
LPFRKKNM	2	13:52661488	NEK5				
RRVTQALQASL, GRRVTQAL	2	9:137688741--9:137693829	COLS1				
DELNFRQRKLY	2	14:95574728	DICER1				
QEKKVTRTI	2	7:136700754	CHRM2				
VLPVKTLLLEY, TLLLEYLEY,							
TLLLEYLEY, KTLLEYLEY,	2	1:220356133	RAB3GAP2				
HRPQRQEPL	2	11:618971--11:618999	CDHR5				

KAKIILKK	2	3:179306713	MRPL47		FEVCVCAC	2	17:7577121	TP53
AQWAAPTPSLW,	2	11:64534503	SF1		SSRKRIIVI, RIIVINYII, RIIVINYI, RKRIVINYII, RIIVINYI, KRIVINYII	2	10:63958149	RTKN2
AQWAAPTPSL, HDAAAAAAQW					CRSTGSSLKM	2	1:223178953	DISP1
LQYWGAEI, LOYWGAEIHL	2	1:161167952	ADAMTS4		WRKVLATPGL	2	14:24532703	LRRC16B
ASLLFSIRR, ASLLFSIR	2	7:150698398	NOS3		LEADMRRSL	2	19:33167455	RGS9BP
RLGFLATAWL	2	10:17659131	PTPLA		TSDTPKFNLI	2	16:28847356-16:28847350	ATXN2L
RALTPGAPAL, AAASARAL,					GPRTTTATMPT, GPRTTTAT	2	16:2059622	ZNF598
LTPGPALPL, ARAALTPGAPAL,	2	16:31072705	ZNF668		SEHIRLEKEM, LEKEMSKL	2	4:104032041	CENPE
HNDAAAASARAL, ALTPGAPAL					GSYPPARQPSR	2	17:48433967	XYLT2
GTSGVDCNHK	2	11:13375965	ARNTL		RSPAAAVRV	2	3:52551362-3:52550119	STAB1
LPGPCASL, HPLGDPQPSSL,	2	3:51417604	DOCK3		SRRGPPTV	2	5:179193279-5:179193138	MAML1
LPGPCASLL					LAHTQFLR	2	17:80400298	HEXD
LPKRLPEL	2	2:43452491--2:43452464	ZFP36L2		HWSSGWTL	2	1:55081757	FAM151A
MAVTIAGA, KMAMTVIAGA	2	3:77657038	ROBO2		YLNVFSNLNYLF, NVFSLNYLF	2	14:35560282	PPP2R3C
AERAVETI	2	2:227661664	IRS1		SRHVCSSHGDKL	2	21:43256586	PRDM15
VSACCAPR, SVSACCAPR	2	22:20130522	ZDHHC8		ARQSCCLPGL, SRARQSCCL	2	1:27105931	ARID1A
IFMCLRLCPHI, LRLCPHLDRL,	2	15:59376343	RNF111		SLSSWPWA	2	1:1290110	MXRA8
RLCPHIL					YLCQCHHGNY, TTYLQCHHGNY	2	12:57921001	MBD6
SLLGLSLA	2	11:64572093	MEN1		TPATLTLAVA, CPKCSTPAT,	2	19:10202224	C19orf66
DAYPSAIFPSA	2	2:29138975	OPRD1		TPATLTLA			
LLGERVWL	2	14:72117181	SIPA1L1		GVAHKAILSPK, VLLSGFGVAHK, LLSGFGVAHK, VAHKAILSPK, IVLLSGFGVAHK, LSFGVVAHK	2	9:77397705	TRPM6
KSHLIVHQI, SQKSHLIVHQI	2	9:115805204	ZFP37		RSLLACQCL	2	19:51015404	ASPDH
CASVAIGK	2	1:150530506-1:150529443	ADAMTS4		LRWSSTRMSTV,	2	1:110169810-1:110168968	AMPD2
SLFLGSHPFRA, SHPFRARIL,	2	3:40529660	ZNF619		RMSTVSQAPCL, LRWSSTRM	2	6:3111145	RIPK1
FLGSHPFRARI, AHFFRISLF,					LLDSTNMNF, LLDSTNMNFK	2	14:94245571	PRIMA1
SHPFRARILC, FLGSHPFRA					LPDSPCQL	2	2:118578755	DDX18
APRCPRSAV	2	1:150530506	ADAMTS4		TLFASLCNL, FEDTLFASL	2	3:66550762	LRIG1
SVYENKLNL, SVYENKLL	2	13:53616083	OLFM4		CLLLLWLV, LLLLWLVLVRL, VLVRLEPV, LLLLWLVLV	2	7:21942715	CDCA7L
LPQSAAAAA, LPQSAAAA,	2	2:43452464-2:43452491	ZFP36L2		SAIAATVGSV	2	8:13356915	DLC1
LPQSAAAAAA					TLNVKDIAPDK	2	22:5027991	ALG12
KMFLESPLK	2	1:92642631	KIAA1107		HTHTSSWRPL	2	19:51015404	ASPDH
YEMTLHVLPV, YEMTLHVKL,	2	2:182387013	ITGA4		FWRSLLACQCL	2	10:71906150	TYSND1
YEMTLHVLP, YEMTLHVVK					VLAAAGAVF	2	2:176988158	HOXD9
RWLWYCWPWTW	2	1:27106804	ARID1A		RLVGALSL	2	9:137677855-9:137688741	COL5A1
DEFNQIDAS, DEFNQIDASVL,					KGRRVTQAL	2	2:46987060	SOCS5
QIDASVLSV, DEFNQIDA,	2	12:124333344	DNAH10		HYKDPSLCMF, HYKDPSLCMF,	2	7:123332485	WASL
DEFNQIDASV					HYKDPSLCMF			
EEASLPKAAV	2	12:114395841	RBM19		SRTVGQCPAL			
LPSLPTMALL	2	14:20846338	TEP1					
RLFPQLQSL, YGSRFLP,	2	1:54605319-1:54605318	CDCP2					
RLFPQLQSL, GRYGSRFLP								
TTKKPIIIGILM	2	8:63951237	GGH					
LEDHITHKT	2	3:37367985	GOLGA4					
VLDINDNPPLF	2	4:134071648	PCDH10					
KLLNKLHK, KLHKYFHEPNK,	2	4:11400771	HS3ST1					
KYFHEPNKKF, KYFHEPNKKF								
IAFGIIINR, CIAFGIIINR,	2	9:2729545	KCNV2					
RMPISILYNK								
CPAPRRAPA, APRRAPARCPA,								
RPGSRSPCPA	2	16:88599701	ZFPM1					
RRLTRMPAW, LTRPPRRLTRM,								
LRTPRPLL, TRMPAWPSTL,	2	9:95738900	FGD3					
RMPAWPSTL								
GAFYHRAQRL, FYHRAQRL,	2	20:49626754	KCNG1					
AFYHRAQRL								
KEIWLSKNPYLV	2	1:65278472	RAVER2					
FMLGRMPTGM	2	19:38028415	ZNF793					
MGAAVMRY, LLRGMGAAVM,	2	22:50988105	KLHDC7B					
FLYRFDLRGM, YRFDLRGM								
RLTSTPNV	2	3:12645699	RAF1					
RAGTRGSLV	2	16:2059622	ZNF598					
LSSVICCLCAI	2	14:76121263	C14orf1					
DSAGKTMLL, DSAGKTMLLY,	2	13:50204663	ARL11					
MLLYKLKGQL								
VRRAPLGTNF, VRRAPLGTNFV,								
KRVPPEPSRRV, RRVRRAPL,	2	X:92928044	NAPIL3					
SRVRRAPL								
TESTPTASSAM	2	9:139945517	ENTPD2					
TRSSNSVYL	2	1:34046429	CSMD2					
RRRLGFLATAW	2	10:17659131	PTPLA					
LTSTPNVHM	2	3:12645699	RAF1					
KNWLVLNL, LSGTGSKAPP,	2	7:23775341	STK31					
NWLVLNL								
FQYPLTSQL, VTWILFQY,	2	8:61135236	CA8					
GVTWILFQY								
SRSTTAPV	2	22:46931196-22:46931227	CELSR1					
FTITVRSI	2	6:161574408	AGPAT4					
LEISLDI, IYHPNVDKLEI	2	X:142967459	UBE2NL					
NPVLPNEVL	2	19:45867259	ERCC2					
KAFQFQTEL, NECGKAFQF	2	19:40521033	ZNF546					
APTCSCGPT, GPTRAPSSA	2	8:120220776	MAL2					
NRGFRALL	2	9:137688741-9:137693829	COL5A1					
GLKGEGRSRK	2	19:2226676	DOT1L					
YRIRKAHSWPI, TPKWIRYFYRI	2	4:15689376	FAM200B					
SRHGLIPLVNL	2	6:107100203	QRSL1					
SALESHKI, SALESHKII	2	19:53058013	ZNF808					
AERTLACV	2	19:17837425	MAP1S					

VRALAASGTWF,								
ALAASGTWFIL, ALAASGTWF1,	2	1:35370639--1:35370731	DLGAP3		VTHPPWWAAM, WAAMASACSL	2	16:67325658	KCTD19
ALPQSPAV					WSSTCGGSM	2	16:2059622	ZNF598
WSWCQTSQY	2	X:129190011	BCORL1		TMAKTSAV, VTMAKTSAV	2	19:31768228	TSHZ3
AYEIWHDSF	2	2:179611639	TTN		VMMLEVCRI, LEVCRIQEFL,	2	16:71602123	TAT
HRASMQPI, HRASMQPI	2	11:71715795	NUMA1		TVPEVMMLEV, MMLEVCSRI			
FVIPPQTL	2	16:4944500	PPL		FTLRWSYNEL, LRWSYNEL,			
KIIGHFLFW	2	7:106513165	PIK3CG		LRWSYNELGLL, LRWSYNELGL	2	8:73848578	KCNB2
ATASPSPL	2	9:98209617--9:98209593	PTCH1		IPGAHPASSAW	2	1:154942910	SHC1
LLKIPRTRLK, SLLKIPRTRLK	2	6:89793677	PNRC1		AEVKHLHILL	2	5:112175572--5:112175553	APC
SAVMANSAAV, AVMSANAAV	2	8:22054260--8:22054259	BMP1		YVMAGLGSPPY,			
NEQKARGAAL	2	7:150699398	NOS3		ILDEAVVMAGL,	2	17:37881000	ERBB2
KMIKWTL	2	14:92472698	TRIP11		YVMAGLGSPPY			
FEIEMNEI, FEIEMNEITNV,	2	18:28914134	DSG1		DELFTMMRSFL, LFTMMRSF,	2	15:45396172	DUOX2
IEMNEITNV, IEMNEITNVGI					GFLSKDELF			
RQLRLRWL	2	1:85040070	CTBS		FYFIPSQL, FYFIPSQLCEI,	2	11:59633897	TCN1
KSNGPGLQY	2	7:107823349	NRCAM		YFIPSQLCEI			
KQVGFISL	2	2:152522864	NEB		LAPPSSAPL	2	14:75230947	YLPM1
CSHFPTPL	2	16:68835781	CDH1		CSSVSSSDGSF	2	3:78666908	ROBO1
VTETNNSPLM	2	19:50547943	ZNF473		IVHNLFVLB	2	4:3182271	HIT
ARPCLPQAM, ASARPCLPQAM,	2	1:53974841	GLIS1		QIQAAATLQAK, FQIQAAATL,	2	1:51753908	TTC39A
SARPCLPQAM					YSMESRTHFQI			
RRNPTQGGLL	2	20:3870079	PANK2		CRVRHERYFL, VRHERYFL	2	14:74004517	ACOT1
YIIQTLSRVEF	2	6:118596709	SLC35F1		ERNRVCML, VMLFRQLHQEL	2	12:121746350	ANAPC5
KRAQWVSVATL, KRAQWVSV	2	9:137688741--9:137693829	COLS1		NYWKRHIEVVM,			
ASDGSDTSM, TASDGSDTSM	2	X:75649461	MAGEE1		YWKRHIEVVM, NYWKRHIEV,			
LPWMVPWGMEA, VPWGMEA	2	14:104642555--14:104642560	KIF26A		RHIEVVMREY, KRHIEVVM,			
TAYWALAGL, TAYWALAGL	2	1:116569517	SLC22A15		KRHKIEVVMREY, NYWKRHIEV,	2	7:73021716	MLXIPL
HPLVATQAL, HPLVATQALL	2	1:228559450	OBSCN		YWKRHIEV			
LRHEASRPL, LRHEASRPL	2	16:632283	PIGQ		RWWRAAGF, ARWWRAAGF	2	2:38301663	CYP1B1
WPLASPPA	2	8:10583646	SOX7		RMPARRESRFW	2	18:34205516	FHOD3
VIQDFIFFV, GVIQDFIFFV,					WMWAVEHSILPR,	2	10:134158106	LRRC27
IQDFIFFV	2	5:72199545	TNPO1		FLWMWAVEHSIL			
LLMRPAGAL	2	9:114393784	DNAJC25,		KDLAWLYFKI, LAWLYFKI,	2	3:186281890	TBCCD1
FSDKMGT	2	1:154313476	DNAJC25-		KDLAWLYFKI			
SQIEIEAV	2	8:99115125	GNG10		RPAPRPTA	2	16:88599701	ZFPM1
LTSTPNVHMV	2	3:12645699	HRSP12		CRLIGVTEI	2	21:45402199	AGPAT3
YTFASEPNNVF, YTFASEPNNV,					KLFIDILDHYT	2	4:115544340	UGT8
FASEPNNV, FASEPNNVFF,	2	2:238249185	RAF1		RPRTARAAGAA, AARAARARV,			
FASEPNNVF					AARAARARVA,			
HRLSQLKPPVL	2	22:50962782	COL6A3		RPRTARAAGA, RPRTARAAA,	2	16:88599701	ZFPM1
KRERVDLSK	2	5:112175649--5:112175552	SCO2		RPRTARTARA			
			APC		RTPMTTRL	2	22:18300932	MICAL3

MSPSLDDYLTM, MSPSLDDY,	2	9:134183379	PPAPDC3		GLWPWGQAQV	2	20:23066469	CD93
EMSPSLDDY					KECQATARKF	2	1:76198353	ACADM
EAWWCRCP1	2	18:60639886	PHLPP1		RWISEDLDGF, GFLRDWHSL,			
IQEVTVNQSL, ILTPLNLQI	2	12:52913636	KRT5		RWISEDLDGFL, WFSIVQTRW,	2	5:13830840	DNAH5
VLFITGILY, SVLFITGILY,					SWFSIVQTRWI, SWFSIVQTRW,			
VLFITGILYV, ILYVDPVGNNY	2	1:216138672	USH2A		FLRDWHSL, FSIVQTRWI			
ASALPEALAV	2	17:80274142	CD7		FRQQNELKKTY	2	X:84526620	ZNF711
IDDQLFAV	2	5:13928280	DNAH5		RTDCLLAHV, RTDCLLAHV	2	5:57753012	PLK2
IEQQVQLQI, IEGQQVQLQIAV	2	12:46230605	ARID2		FAREDRUFL, CRLIGVTEI	2	15:54919114	UNC13C
RLRLRLHRRRLP, RLRLRHRR	2	15:59981590	BNIP2		MQLMAIFKRM, MQLMAIFK	2	6:76715225	IMP61
WPRCPSWCTA	2	16:88599701	ZFPM1		ALRRAACLAH	2	11:76751542	B3GNT6
SLPRSTWHSV	2	16:50745399	NOD2		GELANIGLTL	2	2:238296564	COL6A3
WSSSPPTPCPK	2	8:22054259--8:22054260	BMP1		ESNKLETICYY	2	11:82976919	CCDC90B
KRTWSPRLS	2	14:59112895	DACT1		FLFIQPEC	2	5:112175788--5:112175755	APC
RDKLPLFLLL, KRDKLPLF,	2	10:63958149	RTKN2		AEDLLGGVLAVF	2	1:200378558	ZNF281
KRDKLPLFLLI					WQIQYQNY, KWQIQYQY,	2	7:82579967	PCLO
YFQVNITADSL, LRIQPAVKYF	2	1:117556033	CD101		QKIQYQIYQY, KWQIQYQY,			
ASACTMPPLL	2	17:48433967	XYLT2		VALPQPQPSQL, LAAVRGVAL,	2	12:111800827	FAM109A
FSCMRVASY	2	14:20846338	TEP1		AAVRGVAL			
TRMPGPVPA	2	17:61781804	STRADA		KWCRPWLEQM,	2	X:56591874	UBQLN2
SFWPGGYPAY	2	15:45003781	B2M		KWCRPWLEQML, SFSKWCWRPW			
AEHQANTI, YRKAHAEHQAI,					SRKHIIHKL	2	2:17105836	GAD1
AEHQANTI, AEHQANTIIV	2	3:121155115	POLQ		AAAPPVRLAR	2	2:43452439--2:43452491	ZFP36L2
GLAPETLSA	2	17:46629593	HOXB3		RRQPHHVLV, RQPHHVLV,	2	16:30736371	SRCAP
RRSSPPRPL, SSPSPRPLQLT,	2	1:36643530--1:36643581	MAP7D1		RRQPHHVLV, RQPHHVLV,			
RRPLQLTLL					RTVLQVTL, RTVLQVTL,	2	6:101094534	ASCC3
LDLEPGASAW, LEPGGASAW	2	19:1004710	GRIN3B		RTVLQVTL, RTVLQVTL			
GYCFRMSL, WLRGHETGYCF,	2	X:39913253	BCOR		LRQGRGLL, LRQGRGLLTL,	2	7:99818416--7:99817848	PVRIG
YLWLRGHETGY					CRSSLPSPL	2	1:35370639--1:35370731	DLGAP3
ETLPNPMYV, MYVPCVKELL,					FEVRVCAC, FEVRVCACG	2	17:577106	TP53
NPMYVPCV, NPMYVPCVKEL,	2	19:10659690	ATG4D		FFSKPKRINKL, KRIKNL	2	2:201436992	SGOL2
NPMYVPCVKEL, GETLPNPMYV					MERCTHCTG	2	16:205962	ZNF598
MRLLMLAL, STMRLMLAL,					SEGWHWGAAPM	2	7:120971879	WNT16
MRLLMLALL, MSTMRLLM,	2	9:140033961	GRIN1		RRANKDATAEL, ATAEEIIDEF	2	11:116656573	ZNF259
MRLLMLALL					ILCQKLMQV, WLLQGIFTI	2	16:87866620	SLC7A5
MQLYMQMLLHEI	2	9:129870607	ANGPTL2		LEGMLLPRAL	2	18:34205516	FHOD3
LLFPSTAHL, TAHYLGAYV,					WRRRGSGTIM, RRRGSGTIM,	2	1:35370731--1:35370639	DLGAP3
FPSTAHL, LFPSTAHL,	2	12:8075422	SLC2A3		RRRGSGTIM			
STAHYLGAYV					SELVMRVQGNV,	2	1:87805290	LMO4
FLCATEWLTL, FLCATEWL,	2	14:54898881	CNIH		MRVQGNVYVH	2	2:74687410	WBP1
FLCATEWL, VMFLCATEWL					HRPGTPPPLI, HRPGTPPPLI	2	2:220494118	SLC4A3
IIFDTSWNPY	2	X:76814235	ATRX		TRMTVQASL			
CPLICQQA, VPLCPLICQQA,	2	1:207139176	FCAMR					
HPVPLCPL, HPVPLCPLI								
APQLTITSLSL, APQLTITSL	2	5:140215022	PCDHA7					

HOWLALLPL	2	16:28913639	ATP2A1		SSMNP7SL, RSSMNP7SL	2	7:100855927	PLOD3
FQMHRMWQSF	2	19:20044269	ZNF93		LFYAKGTGGL, GQFRVSLFY,	2	2:21235259	APOB
GVAPRCPR, CPRSAVDI	2	1:150529443--1:150530506	ADAMTS4L		SLFYAKGTY			
YSFQVAKDMEF	2	4:5598809	KDR		QTDSCTFYI	2	11:123436	OSBP5
ALAEEPLI	2	18:27775210	ZNF407		YAPCCLSL, GLSDSYAPCCL	2	22:50315971	CRELD2
LSELTMEL	2	1:39759288	MACF1		HSLEYSLQIQK, SLEYSLQIQK	2	3:115805269	LSAMP
LKMMYHIF, LQMIWAFYL, QMIWAFYL	2	1:35972480	KIAA0319L		FQLCLHYRYFI, CLHYRYFIPGV,			
HQFKSFPPEIYF, SFPEIYFL	2	17:42818751	DBF4B		YRYFIPGVAI, FQLCLHYRYF,			
AAAPPVRALARV	2	2:43452439--2:43452244	ZFP36L2		YFIPGVAI, YRYFIPGV,			
SWFNGTELV	2	7:1097183	GPR146		YRYFIPGVAI, FQLCLHYRYF,			
LLSSCCSSR	2	17:56448298	RNF43		YRYFIPGVA			
RLLTRCCSSA	2	6:116783330	FAM26F		MPTLHTQV, MPTLHTQVQRV	2	16:633353--16:633354-	PIQQ
MCGSALAFFYR, SALAFFYR, GSALAFFYR, CGSALAFFYR	2	7:20371449	ITGB8		16:633354--16:633353			
TSQPQQLNLK	2	8:59728228	TOX		LENIKTIVI	2	1:76343855	MSH4
ARTWPGIACRV	2	16:2059622	ZNF598		LLL GALGL, LLL GALGL KAL	2	18:43419003	SIGLEC15
KTYPISEGGLTM, TYPISegLTM, YPISEGLT	2	2:54093345	PSME4		FSLVVHQII, FSLVVHQI	2	19:58084067	ZNF416
VVVCVRPENTK	2	11:28119446	KIF18A		RMVRGTVY, LPLPNLRM,			
WTWSPTATWVA	2	8:145150876	CYC1		MVRGTVQYDGK	2	12:56478854	ERBB3
RSWTSKGWR, RSWTSKGWRR	2	7:100285170--7:100283942	GIGYF1		IEIVCRVF, IEIVCRVFSS	2	14:36217850	RALGAPA1
PHSSGLAL	2	22:31485922	SMTN		CQKTTLTLHQI	2	19:37118166	ZNF382
YSYRGQPQDFNY, YRGQPQDFNYF, YRGQPQDFNYF	2	14:72171471	SIPA1L1		LLPAPSALVLL, SWISVPCPNL,	2	16:30736371	SRCAP
KVPVRAWLPR	2	2:43452439--2:43452491	ZFP36L2		LLPAPSALVLL, SWISVPCPNL,			
LPGGKAEEAAV, FPFLSGLPG	2	16:30736370	SRCAP		STINSDGSV, STINSDGSVT	2	X:8538695	KAL1
IAITTGGRI, ITTGGRIVPR, TTGGRIVPR	2	5:10261684	CCTS		HATPQTOLPK	2	16:50745399	NOD2
VAVKILLTF, FVAVKILLTF, FVAVKILL	2	6:13306704	TBC1D7		YWEALGAPEAL	2	19:622336	POLRMT
WFPTHVQVTVF	2	10:119805617	RAB11FIP2		VVVGAVGV	2	12:25398284	KRAS
RERLYQDTSL	2	13:20638677	ZMYM2		GRAAARAV	2	2:43452464--2:43452439	ZFP36L2
APSSAWRF	2	8:120220776	MAL2		TWHVAHTFL, TWHVAHTF,	2	11:57185284	SLC43A3
TEVPSLTA	2	2:1481231	TPO		STWHVAHTF, TWHVAHTFLM	2		
TPSEGRDLA, TPSEGRLDAL	2	16:54967096	IRX5		FLWPGBTSPHL	2	X:128926360	SASH3
YLMEEFGTPSI	2	10:15107665	OLA		GEGPDTFCSW	2	22:21982892	YDJC
ITHYHEMGLY, ILYDYLQLTTL, HEMGLLYDYL	2	2:158622630	ACVR1		RLLTRAHVECL, LTRAHVECL	2	4:1389117-4:1389384	CRIPAK
RSHTSMYL LVRSHSTM	2	19:38028415	ZNF793		MLYGNDRFEGY,	2	1:37307503	GRIK3
KTYRWTLA, YRWTLPW, KTYRWTLPW	2	19:50926264--19:50926165	SPIB		FVMFRKSDRM			
					LILAVEFSPV, YLILAVEFSPV,	2	19:47969003	SLC8A2
					ILAVFSPV			
					EVKHLHHLL, EVKHLHHL	2	5:112175552--5:112175572	APC
					RFPQSLYRGT	2	11:19789	CDHRS
					WRFCSGVLSG	2	8:120220776	MAL2
					LMNLNTVLIYQF, QFSRLQPSKF,			
					MLNLNTVLIYQF, QFSRLQPSKF,	2	5:13830840	DNAH5
					VLMNLNTVLI			
					LRWLKRDSYL, IHMDCLRWL	2	12:133250289	POLE
					VDLNTNFKKI	2	7:84727134	SEMA3D

TRASCLGWSM	2	19:7592423--19:7592444	MCOLN1		RLTWGRRR	2	7:102715804	ARMC10
CENSPLYQVSL	2	9:33796691	PRSS3		KEICIEKL	2	14:92471873	TRIP11
ATWWCTGAATR	2	2:60688969	BCL11A		YGNPIEASLY	2	16:2035551	GP2
FTVPSNRSREV	2	5:112128184--5:112116559	APC		REILDGLVEI, REILDGLV	2	7:43918139	URGCP
RWAAASKL	2	19:52715982	PPP2R1A		SRQGYDVHSIDV	2	17:12028657	MAP2K4
YTVCRFSI	2	3:62254809	PTPRG		RYKDLVNLNET, YKDLVNLNETL	2	10:101455842	ENTPD7
LEERGSPQYLV	2	6:75875478	COL12A1		STDDQIIVSYL	2	6:24566874	KIAA0319
YCINLAALSF	2	12:65857005	MSRB3		HRNAYQTEF	2	7:94539496	PPP1R9A
TVIAGAHHCQY, IAGAHHCQY, GAHHCQYKLTY, VIAGAHHHCQY, MAMTIVIAGAH	2	3:77657038	ROBO2		VTANSWLPL, TANSWLPF,	2	17:79803764	P4HB
ATDKWAFFI, ATDKWAFF CSSWRSSSPR, SSWRSSSPR	2	1:156912567	ARHGEF11		SSMPHGVV			
WLWWIWIGLL, FRHWWLWWWWI,	2	6:41555186	FOXP4		NRHWHWSGSL	2	2:79349974	REG1A
WLWWIWIGL, WIWGLLQW	2	12:53207602	KRT4		RPAPSIWGMILL	2	8:28210809	ZNF395
AECNVHSVCI, AECNVHSVIA, AECNVHSV	2	18:7032076	LAMA1		CAWASTTRSSL	2	19:16314384	AP1M1
SLHQITFH	2	4:122756323	BBS7		VLNPCLPSI, GMFVLNPLC,	2	22:38895455	DDX17
GLELKINTY	2	6:43305257	ZNF318		VLNPCLPSI, FVNPCLPSI			
FMLLISIAT, TLNFSVATFML, FMLLISIA	2	10:94243045	IDE		RYFLKRQEM, YFLKRQEM,	2	13:95735432	ABCC4
KLAMKIGGV, LAMKIGGV, SVRSFMDLKK, FMDLKKL	2	5:72199545	TNPO1		LRYFLKRQEM			
CPTTPAPL, LPSQRNRHW	2	17:7577065--17:7577036	TP53		TVSYLKTQK, MTTVSYLKTQK,			
FLLKGILALAI, FLLKGILAL	2	9:98205953--9:98209617	PTCH1		VSYLKTQK, GNMTTVSYLK,	2	3:39159652	TTC21A
SRSVQLQTSF	2	3:137983011	ARMC8		MTTVSYLK, TTYSYLKTQK,			
LRIASQVLI	2	16:88494506--16:88494491	ZNF469		NMTTVSYLK			
RRQQKKEPLII, RRQQKKEPL,	2	5:31322961	CDH6		FEATEKKIF, FFQKCIYI,			
RRQQKKEPLII	2				TYLFEATEKKIF, IFFQKCIYI,	2	1:87025657	CLCA4
SMDASSSKM	2	10:93220255	HECTD2		FEATEKKIFF			
LENKLKAYAM	2	15:56739117	MNS1		EHSGSAGVV, EHSGSAGVVAL,	2	19:17039884	CPAMD8
ALDKPCHQAEV	2	5:112175552--5:112175553	APC		EHSGSAGV, EHSGSAGVVA			
TRNPRRSL	2	1:156715104	HDGF		SLISLFSQVR	2	5:36985083	NIPBL
KDHIFSFNLV, FSFNLVNIKDF,	2	7:83764139	SEMA3A		SPFVLNGNYFI, FLNGNYFI,	2	14:61186924	SIX4
KDHIFSFNL					YFIQPGSGVIL	2	8:144996029	PLEC
LPMNWNSPPL	2	15:65678360--15:65678319	IGDCC4		VPAQRLQEA			
VRPPPGPCL	2	5:14487781	TRIO		LSFAYMPPHL, YMPPHLRGRLL,			
RETPOHNSL	2	18:19144267	ESCO1		AYMPPHLRGRLL, MPPLHRGRLL,	2	6:33273072	TAPBP
TPLLNGLDYTV, TPLLNGLDY,					FAYMPPHL			
LPSHTPL, ISSPLSHTPL,	2	1:180243511	LHX4		QPLQRAAAAL, ALAPTDRLQPL	2	17:70120194--17:70119909	SOX9
LPSHTPLNGL					EDMVVALVLAW	2	17:39742887	KRT14
LEGGQAEVQL, AEVQLRRNA	2	16:3304463	MEFV		FGMALGTLF, FGMALGTL,			
RVCLFLKR	2	3:65346916	MAGI1		TLFVHEHF, FGMALGTLFV,	2	2:233348755	ECEL1
ALACSLEEK	2	2:36825137	FEZ2		MALGTLFV, RHFGMALGTLF			
					TLALTVLKSR, QTALTVLTK,	2	3:52740182	SPCS1
					TLALTVLK			
					LRNPNKLCVLL	2	4:39929664	PDS5A
					WRMKAPAKKTL	2	10:67680207	CTNNAA3
					PRHDGRLYPL	2	2:38301663	CYP1B1

MEVKVLWTSGA	2	14:70633480	SLC8A3	SYLKTMYSSLY, KREPLSY,	2	6:102503432	GRIK2
STGACWLSAR	2	16:50745399	NOD2	KTMYSSLFW, SYLKTMYSSLF,			
MEHDVALRKE	2	7:100285170	GIGYF1	KREPLSLSYL, YSSLFWSQF,			
SSAYGGGVPL, AYGGGVPL,				MYSSLFWSQF, YLKTMYSSLF,			
SAYGGGVPL, AYGGGVPLL,				KTMYSSLF, YSSLFWSQFPF			
GETSSAYGGV,				FVYGGNCF	2	1:100376324	AGL
SSAYGGGVPLL, SAYGGVPLL	2	4:84230034	HPSE	KPQIEVAPQV	2	10:13361209	SEPHS1
YLLKIKHLLL	2	5:112175605--5:112175552	APC	KTLHHLLK, RSKTLHHLLK,			
KALADFICNK	2	3:148563303	CPB1	KTLHHLLKQLK,			
FANWRPRA, CFANWRPRL,	2	17:7579716-17:7579316	TP53	QTMPSSRSKTL, TLHHLLKQLK	2	5:112175606--5:112175605	APC
FANWRPRL				FTSPKIDSV	2	6:17637996	NUP153
YLNWDAVL	2	11:108098609	ATM	TAMCNSYDVR, AMCNSYDV,	2	1:21016738	KIF17
FTIDLVTTCI	2	15:69331226	NOX5	TAMCNSYDV			
LRILPPPL	2	22:46931227	CELSR1	FAVLGTMVMK	2	1:150529443--1:150530506	ADAMTS4
LYMHSLTHSM, YMHSLTHSM	2	16:20975196	DNAH3	IEPKPFYI	2	7:93108747	CALCR
			UGT1A8,	DETRQLCDL, DETRQLCDRL,	2	3:178916876	PIK3CA
			UGT1A7,	EEFDDETREQLC			
			UGT1A3,	CMSSLPLPL	2	1:156814343--1:156814053	INSRR
			UGT1A1,	FPDTNIPGL, TNFPGLITL	2	1:17668563	PADI4
AQWKAAQVQSI	2	2:234580888	UGT1A5,	WALVLETML	2	15:42371752	PLA2G4D
			UGT1A10,	FRSLRALHSL, RALHSQL	2	15:74467645	ISLR
			UGT1A6,	TRLHGNL	2	8:24167472	ADAM28
			UGT1A9,	YPSATISWFW	2	11:113102999	NCAM1
			UGT1A4	SRKDLVLINSL	2	12:132490710	EP400
				RMHVCGSLL	2	16:1273490	TPSG1
TVVDASFFL, ISMEQVTVV,	2	5:138643806	MATR3	SPALKQVSPA, ALKQVSPA	2	2:203420130	BMPR2
ISMEQVTV				FTCMTSRGFSY, MTSRGFSY,			
HLLTSSAYRL	2	12:110370961	GIT2	GRMPLLFTCM, MTSRGFSYM,	2	16:81904511	PLCG2
YVTERIIAL, YVTERIIAISF	2	2:218762616	TNS1	LTRGMPLLFC, CMTSRGFSY			
AADRAGWL	2	7:128852004	SMO	ATPCHLRLY, LRATPCHLRLY,			
ITICAVSSL, ITICAVSSL	2	5:140203464	PCDHA5	LRATPCHLRLY, LRYLMATDTV,			
IRNHPRTQL	2	19:58880242	ZNF837	YLMATDTV, RATPCHLRLY,	2	6:80383444	SH3BGRL2
SLVVPSSAWRV, WRVGGPLGSL	2	1:35370731-1:35370639	DLGAP3	LRATPCHL			
LPMRRTLDPQI	2	1:21220089	EIF4G3				
NSSCMGGMNQR	2	17:7577538	TP53	MENISPFRCYL	2	17:7577065--17:7576881	TP53
KRVDLSKL	2	5:112175676	APC	TMPPPLLHPQW	2	17:48433967	XYLT2
FRASELLQSQL	2	15:35174815	AQR	YFIPSSSSAPF, FIPPSSSAPF,	2	19:13446675	CACNA1A
ITIVIPRF, TRITIVIPRF	2	7:103230055	RELN	FIPPSSSAPF			
SPAREHPL	2	X:150869296	PRRG3	LSATITLTV, LSATITLVAV	2	5:140802769	PCDHGA11
SSFSYLLI, SSFSYLLI	2	14:23549379	ACIN1	APCPAQVL, APCPAQVLLR	2	19:1004896	GRIN3B
QOEKGKKHLVL	2	2:220417266	OBSL1	YVDPSSGDFC	2	18:48591918	SMAD4
GEWELCRAAPG	2	1:200880978	C1orf106	DRHTKFFFEEL	2	5:145980011	PPP2R2B
AQAPPEVTL	2	20:23066469	CD93	LSQSSSSYFSF	2	2:11881594	BCL2L11
				NQHCKTRNRYI	2	16:70219844	CLEC18C

KLFYSAKNTSK, SAKNTSKLLPK, YSAKNTSK, TSKLLFKK, YSAKNTSKLL, YSAKNTSKLLF, YSAKNTSKL, NTSKLLFK, KNTSKLLFK, YSAKNTSKL	2	3:16343361	OXNAD1	QEVLLEDL WRQEGPC1 YKFWNHIV, YKFWNHIVACV IVSSITASLQF, VSSITASLQF, SSITASLQF VRKTPHPL VLQTGGTTHLK, QTGGTTHLK MEHDVALRR SIVDVVEVT, SIVDVYVEV, IDVYVEVT, GSDENEESSI, GSDENEESIV, SIVDVYEV SAILYVHRKI RELLLVGRYGG QPQFCSSIL LYPGNTTV, LYPGNTTVI STPSLHRL FLGDWTLPLMA, FLGDWTLPM, FLGDWTLPLMAA LEIRKQRQHL YYVCMKELTL, FFCPVYYVCM, YYVCMKEL, YYVCMKEL, KAFFCPVYYY, AFFCPVYYY, YYVCMKELTL GEAAFAAA, FAEGGGEAAF, GEAAFAAAA, AEGGGEAAFAA, GEAAFAAA, GEAAFAAAA, AEGGGEAAF AVGPRQLPK, LAVGPRQLPK, GLAVGPRQLPK PTPPHLHLF HRKSLT LHQII QTQPRMSPL, SQTQPRMSPL TRKGWSL, TRKGWSLSM TVIKKRDQCF QEKEAEAKNY RPRTRLPRA, RAGPRRPPA, VQA AVR PTRL, LPRAGPRRPPA, AVR PTRL TRRG GWRL TLACV CAL, TLACV CALL, TLACV CALLY LELKGSHHPCI ITLSNWFWF WHWGAAAATT HSPYWAPPV	2	1:118642238 2:541046035 2:836766859 2:132237994 2:22:37900249 2:5:36035970 2:7:100285170 8:123966118 2:17:1891510 2:X:54497147 2:8:110457666 2:16:84213651 2:17:4719139 2:10:61828580 2:19:12384448 2:2:176988158 2:2:43452439-2:43452491 2:12:58157486 2:19:57089719 2:20:25457050 2:1:156715104 2:11:124845049 2:5:112175951 2:16:88599701 2:6:39272281 2:19:17837425 2:2:48030670 2:17:73227439 2:12:49374348 2:X:70327614	SPAG17 ARAP3 KCNU1 TUBA3D CARD10 UGT3A2 GIGYF1 ZHX2 ZNF721 SLC5A10 FGD1 PKHD1L1 TAF1C PLD2 ANK3 ZNF44 HOXD9 ZFP36L2 CYP27B1 ZNF470 NINL HDGF CCDC15 APC ZFPM1 KCNK17 MAP1S MSH6 NUP85 WNT1 IL2RG		
SEGIYIAIV, SEGIYIAIAVVL VVISVDYKSF, SAPINNNYV FSTTVTNPQPM HRTETHTTSSM YRTQPDHPSAL STNSVCLML, STNSVCLM WEPAWAPATY RQSPKRLLL, LRKDTSVKIKI, ERRQSPKRLLL, RQSPKRLLL, RRQSPKRLLL, RQSPKRLLLRRK, LRKDTSVKI	2	11:101344457 7:31862779 2:19:10246814 2:11:111742146 2:1:981860 15:50853889 16:84224967	TRPC6 PDE1C DNMT1 ALG9 AGRN TRPM7 ADAD2	SAILVHRKI RELLLVGRYGG QPQFCSSIL LYPGNTTV, LYPGNTTVI STPSLHRL FLGDWTLPLMA, FLGDWTLPM, FLGDWTLPLMAA LEIRKQRQHL YYVCMKELTL, FFCPVYYVCM, YYVCMKEL, YYVCMKEL, KAFFCPVYYY, AFFCPVYYY, YYVCMKELTL GEAAFAAA, FAEGGGEAAF, GEAAFAAAA, AEGGGEAAFAA, GEAAFAAA, GEAAFAAAA, AEGGGEAAF AVGPRQLPK, LAVGPRQLPK, GLAVGPRQLPK PTPPHLHLF HRKSLT LHQII QTQPRMSPL, SQTQPRMSPL TRKGWSL, TRKGWSLSM TVIKKRDQCF QEKEAEAKNY RPRTRLPRA, RAGPRRPPA, VQA AVR PTRL, LPRAGPRRPPA, AVR PTRL TRRG GWRL TLACV CAL, TLACV CALL, TLACV CALLY LELKGSHHPCI ITLSNWFWF WHWGAAAATT HSPYWAPPV	2	8:123966118 2:17:1891510 2:X:54497147 2:8:110457666 2:16:84213651 2:17:4719139 2:10:61828580 2:19:12384448 2:2:176988158 2:2:43452439-2:43452491 2:12:58157486 2:19:57089719 2:20:25457050 2:1:156715104 2:11:124845049 2:5:112175951 2:16:88599701 2:6:39272281 2:19:17837425 2:2:48030670 2:17:73227439 2:12:49374348 2:X:70327614	ANK3 ZNF44 HOXD9 ZFP36L2 CYP27B1 ZNF470 NINL HDGF CCDC15 APC ZFPM1 KCNK17 MAP1S MSH6 NUP85 WNT1 IL2RG		
FVNNGELFSTY, STYKENGPF, TYKENGPF SAASYLWPSR, ASYLWPSR WRAKISTM, WRAKISTMSTY SERQMRTRTM, RQMRTTRTM, MRTTRTMGPLL, TRTMGPLL, ERQMRTRTM	2	8:67752239 14:89878534 12:122018740-12:122018773	SGK3, C8orf44- SGK3 FOXN3 KDM2B	HPS3	MBP	GEAAFAAA, FAEGGGEAAF, GEAAFAAAA, AEGGGEAAFAA, GEAAFAAA, GEAAFAAAA, AEGGGEAAF AVGPRQLPK, LAVGPRQLPK, GLAVGPRQLPK PTPPHLHLF HRKSLT LHQII QTQPRMSPL, SQTQPRMSPL TRKGWSL, TRKGWSLSM TVIKKRDQCF QEKEAEAKNY RPRTRLPRA, RAGPRRPPA, VQA AVR PTRL, LPRAGPRRPPA, AVR PTRL TRRG GWRL TLACV CAL, TLACV CALL, TLACV CALLY LELKGSHHPCI ITLSNWFWF WHWGAAAATT HSPYWAPPV	2	10:61828580 2:19:12384448	ANK3 ZNF44
TETTGTRPL, TETTGTRPLSL AVLGMVMV TSIQTGYMPRK, SIQTGYMPRK, IQTGYMPRK RRWSSQTCSEL LQDEGSSLW RECPPEPA VVLTSDSPAL GSMNRRLPILT IQNAAFLSNI LYPPEIVTL, LYPPEIVTL, KRLYPEIVTL, LYPPEIVTL LRDTPAMASSV, TRPEPPPAPV	2	10:124895627 1:150530506-1:150529443 4:46930528 19:5231449 3:155546024 17:79899272 7:23293803 17:75775748 13:20638677 15:62256915	HMX3 ADAMTSL4 GABRA4 PTPRS SLC33A1 MYADML2 GPNM TP53 ZMYM2 VPS13C	GABA4 ADAMTSL4	GEAAFAAA, FAEGGGEAAF, GEAAFAAAA, AEGGGEAAFAA, GEAAFAAA, GEAAFAAAA, AEGGGEAAF AVGPRQLPK, LAVGPRQLPK, GLAVGPRQLPK PTPPHLHLF HRKSLT LHQII QTQPRMSPL, SQTQPRMSPL TRKGWSL, TRKGWSLSM TVIKKRDQCF QEKEAEAKNY RPRTRLPRA, RAGPRRPPA, VQA AVR PTRL, LPRAGPRRPPA, AVR PTRL TRRG GWRL TLACV CAL, TLACV CALL, TLACV CALLY LELKGSHHPCI ITLSNWFWF WHWGAAAATT HSPYWAPPV	2	2:176988158	HOXD9	
		3:5:2550119	STAB1						
RAENQLTASL, AENQLTASL, AENQLTA, AENQLTAS	2	22:37906262	CARD10						
MEACNSNGVLI IVLALKHLHK WRTPMTTRL MMATCPCPQGW	2	1:45228107 14:91413793 22:18300932 2:227661664	KIF2C RPS6K45 MICAL3 IRS1						

EVAAQARASGI	2	20:43933021	MATN4		LPLQIKGEGM	2	16:71127814	HYDIN
RARWSTSF	2	22:31485922	SMTN		HLEKAFRSY	2	X:13778510	OFD1
ADWLCGAW	2	16:50745399	NOD2		LTSKINLH	2	16:71509257	ZNF19
ALHGILYVL	2	4:3234980	HTT		WPARRGLTSA	2	3:114058003	ZBTB20
MPLHHGLTQKM, MISETCVR	2	5:72199545	TNPO1		FGSTVASSHRF, ASSHRCFHQY	2	7:91732038	AKAP9
KVLQMDFLV	2	5:112175761--5:112175752	APC		CWPRRWPRL	2	16:89598371	SPG7
QLLTSGMELK, LLTSGMELK	2	4:153245446	FBXW7		EVCVCACPGR	2	17:577121	TP53
RASGHTEAV	2	17:80049304	FASN		YHHPDPREL	2	16:88951498	CBFA2T3
GRSPPATGGRM	2	1:204228411	PLEKHA6		HLLKQLKPEK, KQLKPSEK	2	5:112175594--5:112175596	APC
MSNLHPLL, SMSNLHPLL,	2	6:12124863	HIVEP1		FLDDHQNKI	2	15:49048485	CEP152
SMSNLHPL					RQPPPTTSF, RQPPPTTSFPF	2	16:30736370	SRCA
CWYCRQQNGYR,					CRHTGGAGV	2	11:6590002	DNHD1
RQNQYRALMDK,					SLGFKLTSV	2	12:30906661	CAPRIN2
WCYCRQQNGYR,					FRVIQVSPF1, IQVSPFIL,	2	3:58303179	RPP14
VLLRPLHV, VLLRPLHVPRV	2	11:76751585--11:76751504--	B3GNT6		FRVIQVSPF1, IQVSPFILAL			
RHPKVHLNTM	2	5:112175351--5:112175346	APC		SAMPFKII, SAMPFKIIY	2	9:8484375	PTPRD
QASRPRPAR, QASRPRPARR	2	19:5244243	PTPRS		YHEEVLTV	2	X:1428338	CSF2RA
FRHWWLWWIV,					LEFAPSNNHYF	2	17:74391933	UBE2O
WWLWWIV, GGFRHWLW,					NSKAVFFSMK, KAVFFSMK	2	1:202407190	PPP1R12B
HWLWWWWI,					FFCDVSSDVF, FFCDVSSDVFY	2	19:56321612	NLRP11
LWWIWWGLQW					QEAPLAQW, QEAPLAQWVV,	2	3:48612871	COL7A1
RETHLHTY	2	10:114900984	TCF7L2		QEAPLAQWV, QEAPLAQWVV			
RERQEEQLQRQL	2	19:12876964	HOOK2		YAQNVVQI, AQNVVQIQK.	2	12:64196001	TMEM5
FQEPPMTGFL	2	16:28847350-16:28847356	ATXN2L		YAQNVVQI, AQNVVQIQK			
MATDTEIMTV, YLMATDTV,	2	6:80383444	SH3BGRL2		SRSNSTSWM	2	19:7592423--19:7592444	MCOLN1
LYRLMATDTV					ISMVHTTIL, MVHTTILYL,			
EVSELSSWGA, EVSELSSWGA	2	5:140588663	PCDHB12		ISMVHTTIL, MTFLKGNSIMV,	2	10:126100644	OAT
FRFWVEKL	2	18:12699829	CEP76		FLKGNSIMV, ISMVHTTILY			
LRMVRGTQVY, LRMVRGTQV	2	12:56478854	ERBB3		TERNLRPLS1	2	9:35043650	C9orf131
REVLKKNW, REVLKKNWNSA	2	10:890939	LARP4B		YYESVQTPTGY	2	1:16254645	SPEN
IYTIVKLMVCL, IYTIVKLM	2	2:197645342	GTF3C3		SPYPSCSSTPA, YPSCSSTPANI	2	2:204305618	RAPH1
TAWQLVPL	2	1:27106804	ARID1A		ARHKAVEFL	2	5:112175351	APC
FSDHGMTNIFW, FSDHGMTNI	2	4:185038131	ENPP6		LLHFARKVL, FARKVLQM	2	5:112175766	APC
MTNIFWMKDVK, FSDHGMTNIF					CARPATSASAA, CARPATSASA,	2	16:88599701	ZFPM1
RRSLARASL, SRSSLARASL	2	6:30864547--6:30863251	DDR1		AARCARPATS			
LQWMMSGDL	2	6:31239108	HLA-B, HLA-C		IQPVNYSLW, IQPVNYSLW	2	4:153881906	FHDC1
IEACRVLSH	2	2:96992986	ITPRIP1		HTAKVNCLSF, KVNCLSFNPY,	2	X:16870937	RBBP7
AVQPFITGDNK	2	18:8113645	PTPRM		LVDATHAK, HLVDATHAK			
WSSTVGNVSPM	2	10:46999178	GPRIN2		CRRQNGYRALM,			
RHLWHTCM, GRHLWHTCM,					RRQNGYRALM, CRRQNGYRAL,	2	9:5897631	MLANA
GRHLWHTCM	2	19:38376035	WDR87		RRQNGYRAL			
YFQYCQLNLDM	2	8:62212687	CLVS1					
LPLLWAGVL	2	19:51728477	CD33					
AMVQSHPMSL,					STFSLYRGRAL	2	2:220309843	SPEG
MVQSHPMSSL,					HLVRFLPPV, FLLPVQL,	2	17:37627694--17:37627688	CDK12
MSLSLWPGPSR, VQSHPMSL,					FLLPVQLCPL			
SHPMPSL, VQSHPMSSL,	2	19:17039884	CPAMD8		QARASGIEI	2	20:43933021	MATN4
LAMVQSHPM, MVQSHPMSL,					YATIQTESI, IMYATIQTESI	2	5:134235320	TXNDC15
SRLAMVQSHPM,					CMYSPALNKM	2	17:7579313	TP53
LAMVQSHPMSL					APTLTAPQLP, LPTATTGESPT,			
RARGTTIGEV, SPALRARGGT,	2	12:122242658	SETD1B		TPAQLPTA, TPAQLPTATT,			
SPRRSPALRA, SPALRARGGT					TPAQLPTAT, APTLTPAQL,	2	19:10202224	C19orf66
SEKYLKIKHL	2	5:112175553--5:112175594	APC		LPTATTGES			
TMPTGLQSRLF	2	7:97933623	BAIAP2L1		WQSGAMWV, AMWVQPPWEQL	2	16:28913640	ATP2A1
SRLPAILS, TLLSRLPAILS,	2	1:156715104	HDGF		FRVCSQSL	2	19:38103616	ZNF540
SRLPAILSCLCL					AAASSSSSF, SAAASSSSSF	2	1:27875371	AHDC1
GASAAGRAL, ASAAGRAL	2	11:380921	B4GALNT4		LTVPVPESPA	2	7:139167934	KLRG2
AESPGAAL	2	17:7462459	TNFSF13		QVIEAMLVAAV, MLVAAVATTV	2	16:1502857	CLCN7
VVMETLDHLV, QEAPLAQWV,					YMKMQDTSKM	2	6:144772609	UTRN
QEAPLAQWV, TLDHLVPRV,					LLSSILSSL, ILSSILSSL,	2	5:38407192	EGFLAM
METLDHLV, METLDHLVPRV,					LLSSILSSLA, ILSSLATPM			
QEAPLAQWVVM					PRRRGRRRA, PRRRGRRRAA	2	16:88599701	ZFPM1
GRALARGRL	2	11:380921	B4GALNT4		RTHEITHTGEK	2	19:12637516	ZNF564
TPAAAQLL, MPLSTPAA,					RMSRALWTL, MSRALWTLL,			
MPLSTPAAAQ, STPAAAQLL,	2	7:99817848--7:99818416	PVRIG		WRMSRALWTL,			
MPLSTPAAAQL, MPLSTPAAA					WRMSRALWTLL,	2	16:633125	PIGQ
ATTSSTSLSF	2	19:46269076	SIX5		WRMSRALWTLL,			
RLLWQICR, QICRGNVYLNK,					SSLQKHVK, YTDPSSLQK	2	12:57861838	GLII
WQICRGNVYL, MASERLLWQI,	2	7:138444564	ATP6V0A4		HSMRYFSTSV	2	6:29910558	HLA-A
WQICRGNVYLK					QRVAAGLVYEL	2	7:100285170	GIGYFI
KSMLVLHR	2	5:112176027	APC		SRSSHVLVSHQI	2	3:41277892	CTNNB1
LRLRLHRLR	2	15:59981590	BNIP2		ISKDDLIAY, SISKDDLIAY,	2	19:44981496	ZNF180
YVQERKKNLIY, HTCLTLNY	2	4:84370084	HELQ		LSISKDDLIAY, SKDDLIAY	2	2:23916296	KLHL29
LELGPDGHQLR	2	8:144810138	FAM83H		WELCRAAPGA	2	1:200880978	C1orf106
ALLGSSCAPPL	2	18:3452223	TGIF1		PPMPPPANPQL, MPPPPANPQL,	2	9:35043650	C9orf131
YKLVVVGAV	2	12:25398284	KRAS		MPPPPANPQLL, MPPPPANPQL,			
RRAPRRAWL, RAPRRAWL,	2	20:3765819	CENPB		GEALQSVHEV, GEALQSVHEVF,	2		
MRRAPRRAWL					HEVFSAPA	2	4:1165130	SPON2
RAAAWRATV, AAAWRATV,	2	11:76751585--11:76751604	B3GNT6		SAPSAQSQL	2	3:114058003	ZBTB20
RAAAWRATVLL, AAAWRATVLL					LIKRRGPYEM, YEMSPSLL,			
LIFKATSP	2	7:1855851	MAD1L1		YEMSPSLLD, YEMSPSLLDYL,	2	9:134183379	PPAPDC3
LQVDSLWDVLL,	2	1:15850613	CASP9		KLIKRRGPYEM			
LLMWTPCTV, LLMWTPCTV,	2	10:94243045	IDE		KQAMCLQL, KQAMCLQL	2	6:33171324	SLC39A7
LLMWTPCTV, HLLMWTPCTV					KQFGAQVHQOR	2	12:2208151	CMAS
					RQIAHGADAV	2	4:22414962	GPR125

FVIKHLFL	2	1:92769903-1:92772747	RPAP2	MMGCDLVEV, NMMGCDLV,	2	1:15901300	AGMAT
RFFRFRGRLVW	2	19:54974318	LENG9	NMMGCDLVEV	2	3:46414947	CCR5
KTHSTHSM, LSSSKTHSTSM,	2	10:94243045	IDE	CSSHFPYI, FPYIQYQFW,	2	2:43452464	ZFP36L2
SSSKTHSTSM, SSSKTHTSM	2	1:223949290	CAPN2	DRAVPHLSY, SEVQDRAVPH,	2	2:204305619	RAPH1
ADYQAVNDEI, YQAVNDEI	2	17:43480123	ARHGAP27	SEVQDRAVPHL	2	18:3452223	TGIF1
YTVELRGATLL	2	2:152548665	NEB	VAPPPTPPL, QVAPPPTPPL,	2	7:100285170	GIGYF1
SEARYKDVYY	2	8:113241029	CSMD3	VAPPPTPPL, QVAPPPTPPL,	2	18:48723146	MEX3C
HSIQDVQFM	2	X:99662505	PCDH19	QLLGADSWK, RVQLLGADSWK,	2	11:77920855	USP35
VEVSESAPP	2	17:46135788	NFE2L1	LLGADSWK	2	6:39272281	KCNK17
YSSAPRWKAACL				AEEAAAVTA, AEEAAVTTAA,	2	1:36935323	CSF3R
SSASTRHVTPL, ASTRHVTPV,	2	3:195506746	MUC4	AEEAAAVTAA, AEEAAVTTAA,	2		
ASTRHVTPL, SASTRHVTPL				EAAAAAVTLY	2		
SRTLVVFV, KYVSRTLVV,	2	4:141888889	RNF150	GLQGSWWA	2		
KYVSRTLVVFV, YVSRTLVVF,				SRLGGPGRIL	2		
KYVSRTLV	2	10:50025369	WDFY4	YVIEWGLGPPA	2		
FLSLVHHHTY, LQFLSLVHHHTY				TLNFSVATF, STLNFSVATF,	2		
ASMVFNHVEK, MVFQNHNVEK,	2	9:100257990	TDRD7	FSVATFML, FSFATFMLIL,	2		
SMVFQNHNVEKK,				STLNFSVATFM, TLNFSVATFM,	2		
SMVFQNHNVEK				FSVATFMLI, VSTLNFSVATF	2	10:94243045	IDE
SRDLAKKKLFL	2	5:98206409	CHD1	LREMVSNM	2	13:46288145	SPERT
RWSRAVLHYI, SARRWSRAV,				AESLLLFLLT, AESLLLFL,	2	3:148863159	HPS3
RRWSRAVL, ARRWSRAVL,	2	3:19384132	KCNH8	AESLLLFLTS, AESLLLFL	2		
ARRWSRAV, SARRWSRAVL				SELQPKISKSL, SLMQTI	2	13:31735655-13:31732974	HSPH1
YANLPEYI, YANLPEYFKRL	2	11:126126690	FAM118B	SRDVAESSL, VEALSLIF,	2		
TVFGTLASLYL, TVFGTLASL,	2	1:230846185	AGT	EALSLIF, VEALSLII,	2	11:57268319	SLC43A1
TTVFGTLASLY, SPITVFGTL				VEALSLIIL	2		
RIDNNSTASYL	2	2:165551820	COBLL1	YPIPVTMVL, YPIPVTMV	2	4:5016903	CYTL1
SYHRLPLW, SYHRLPLWA	2	2:43452464-2:43452439	ZFP36L2	HPGLRPGHLH, RPGHLHLL,	2	8:145625525	CPSF1
HEIIHHTGERP	2	22:24086597	ZNF70	HPGLRPGHL, HPGCCADHPGL	2	2:43452491-2:43452464	ZFP36L2
IPPTSRGSSL, PPTSRGSSL	2	17:16285785	UBB	GLRGLHAL	2	16:50745399	NOD2
RTVHAFAM, VRTVHAFAM,				LLASWCVPK, LASWCVPK	2		
HAFAFAMEQR, RTVHAFAMEQR,	2	7:150733024	ABCB8	NVHFASVVNY, VVNVYFIEKENY	2	13:48615145	NUDT15
TVHAFAMEQR				KMIGGNLKI	2	2:238976762	SCLY
SPTEPSTEAL	2	6:32017322	TNXB	AQNYYVEL	2	3:89259138	EPHA3
YTIKWFEV	2	11:114183101	NNMT	NPSQPVPL	2	1:155308000	ASHIL
ITVPRCVKMY	2	8:104312432	FZD6	ILFPCRL, ILFPCRLLL	2	6:116836954	FAM26E
AAVPPTTAGAL	2	11:64981481	SLC22A20	RETEPCML, RETEPCMLL	2	1:156814053	INSRR
MQLQAIQL, IEMQLQAIQII,	2	2:55756108	CCDC104	RMQLCTQLAR	2	17:56435161-17:56435252	RNF43
IEMQLQAIQI, MQLQAIQII				WRAGGVWAV,	2	14:20852646	TEP1
FVICWLPL	2	3:88040823	HTR1F	WAVGSAGCMYEY	2	4:119951693	SYNP02
YKQDRDITL, YKQDRDITLL,	2	3:136287655	STAG1	MVPMNRMAK	2	18:25565698	CDH2
TLLDLINFFI				GMLQIYLL, MSGTGMQLIY	2	1:161068553	KLHDC9
				HPWTGVGSAW	2		
GLLTASGSAAA	2	15:59981515	BNIP2				
FMDQNQYAL, FMDQNQYALL,	2	2:116548905	DPP10				
FMDQNQYALL							
FSRSPIRKI	2	21:34927647	SON				
MLSALARVSA, VSAALRRSF,	2	7:75677504	MDH2				
ALARPVAA							
SLQPGLGNV	2	11:66055105	YIF1A				
RQIYPPSTCSDL	2	2:71191573	ATP6V1B1				
SSSLPLRHTSL, LPLPRHTSLT,	2	12:25232370	LRMP				
LPLPRHTSL							
TVASSHHR, TVASSHRCF	2	7:91732038	AKAP9				
REMRRAGCC, REMRAGGC	2	10:46999601	GPRIN2				
KQAVCFRAW	2	9:117071681	COL27A1				
VPRROCQA, RRQCQASARF,	2	9:98211549	PTCH1				
VPRQCQASA							
KQDKCFSTF, KLKQDKCFSTF	2	13:38154705	POSTN				
GREQRPEV	2	10:46999895	GPRIN2				
AEAKATAETV	2	9:124855330	TTLL11				
YRF DLLWGV	2	22:50988099	KLHD7C7B				
SELPGRRAW	2	12:110019240	MVK				
FQIRGAAPPYI, AAPPYIYAV,	2	20:47271846	PREX1				
GAAPPYIYAV							
SRPQLRRWL, SRPQLRRWLLV,	2	1:85040070	CTBS				
SRPQLRRWL							
KLDENNTPM	2	5:151051214	SPARC				
FLYYYKSIGPL	2	2:179392756	ELTD1				
CQYLHEAY	2	13:32813960	FRY				
YANDAFAPEEYM	2	14:63671738	RHOJ				
SRCDRVHIF	2	19:38958286	RYR1				
RSRSPRRRL	2	1:36643581-1:36643530	MAP7D1				
VPNYSLWL, YSLWIEAMVL,	2	4:153881906	FHDC1				
YSLWIEAM							
KLFPLLKV	2	8:145745194	LRRC14				
RRSGWLGLR, CRRSGWLGLR,	2	16:50745399	NOD2				
RRSGWLGLRV							
YIFCLHYGTQL	2	9:114695180	UGCG				
SSMPSFQQAFL, LRADASSM	2	7:47344502	TNS3				
SELKMVTSTGL	2	1:10089837	CDC14A				
ATHQWPGSTCR	2	16:50745399	NOD2				
KLHSLHPTSV	2	14:55817461	FBXO34				
QRFPITLTV, RPLCQRFPITL	2	16:14346300	MKL2				

IQYALDQGMNV, ALDQGMNV, GMNVTQVFV, IQYALDQGM, ALDQGMNTVQ	2	19:12918306	RNASEH2A	IYKWPVPM, LRIYKWPVPM GQISTLVL, FVGQISTLV ILWNVSSL, ILWNVSSL	2	12:122468668 4:15067858 5:112170822	BCL7A CPEB2 APC
QESSFIWPSFM, FIWPSFMVMTM, QESSFIWPSF, SFMVMTML, FIWPSFMVM, FMVMTMLRN, FIWPSFMV	2	7:21942715	CDCA7L	WMAPVKISL, TYAWMAPKV, GTYAWMAPKV	2	1:233482322	KIAA1804
ITFEGCQPPTV WAFTDTFL, WAFTDTFLNL, LQWAFTDT, FTDTFLNLTL LAAGLKSSIM SASQFQSDFK MTSSRCWTHCL AESNLFLA TFSSVPLVASI VSLTSFLF CSRPLCSRPL ATYPKFLANAL VPPPHCLPL, MPPQVPPPHL, VPPPHCLL KQICIPRSL LYENQNCFEF, YVENQNCFEF	2	11:76256898 11:76751166 6:36452576 13:23904858 15:75942664--15:75942736 4:151829982 1:22191454 5:7219545 7:128587374--7:128587381 1:112303389 1:204438071 3:170013719 3:195798938	C11orf30 B3GNT6 KCTD20 SACS SNX33 LRBA HSPG2 TNPO1 IRF5 DDX20 PIK3C2B PRKCI TFRC	WRWWTWGL QMNDARHGFW QETAKFFL, QETAKFFLSL CRPWLEQML, CRPWLEQML HTAPSGL, SPWGSHTAPS, SHTAPSGL, WGSHTAPS STISQNHPTV LLWQLSIL, LSFCFSTI, KLLWQLSIL, CLWKLLWQL, CLWKLLWQLS SPWVRPRLRRLL, WVRPRLRRLL, WVRPRLRRLL, SPWVRPRLRRLL GQSSLIHHQI RTATWVRNLTL, ATWVRNLTL, RRRTATWVRNL, RRTATWVRNL, LRTPPRRLTRM, LRTPPRRL	2	3:196674360 3:178952085 19:6183180 X:56591874 19:17039884 8:145150876 17:19729452	PIGZ PIK3CA ACSBG2 UBQLN2 CPAMD8 CYC1 ULK2
HRALQLLHEV, HRALQLLHEV, HEVLHMP, HEVLHMP	2	18:48604787	SMAD4	EASQNLSTPPL NEVKDLLRCL ISIYLTYQKF, TYQKFLCRNM, SIYLTYQKF, FAISIYLTY, KFAISIYLTY QVDQLWDVLL RRAEQRRHL, RRHLQHRL RARARAPAA, RARARAPA APGLLWMLAL APPLHRRAA RVSPRPLSLP FFFSFFYYFLWI, FFYFLWILWL, FFFLFFFSF, YWFYFLF, TYWFFFLF, FYFLWILWL, FFFSFFYYFL, YFLWILWL, FFFSFFYYF, YWFFFLLFFSF, FYFLWILWL SQNNLYRYV QRVTVIIRGM TVALTIIR, GTVALTIIR ILTHIECL	2	1:233397867 7:92760715 12:9885707 1:15850613 17:70119807--17:70119780 16:88599701 11:6411935 18:3452223 13:111368164 19:12433451 1:156715104 2:40656129 5:57753012	PCNXL2 SAMD9L CLECL1 CASP9 SOX9 ZFPML SMPD1 TGIF1 ING1 ZNF563 HDGF SLC8A1 PLK2
TYYQDPRGI, TYYQDPRGIY MAASWLLT, MAASVWL YIDPSDYCM FSSHPSGSTK WFDQHQIIHPL LLDDSITIY, LLDDSITI GPAATSSL, WAGPAATSSL YLDNRNIFR, EYLDNRNIFR, YLDNRNIF SRHTKFGYGV, SRHTKFGY, SRHTKFGYGV ILSTKASNTI RTVASSPM, RTVASSPM AAPRTVASSPM, KMWCPAAPRTV, VASSPM TMQDTQWV, ILTMQDTQWV, KSTQNGILTM, MIQDTQWV, STQNGILTM	2	19:36317520 3:52543930 3:55504335 18:34205516 7:99084495 3:113138965 2:19:17836781 2:17:7578217 6:121562685 6:116836954 2:1:53974841	NPHS1 STAB1 WNT5A FHOD3 ZNF789 WDR52 MAP1S TP53 C6orf170 FAM26E GLIS1	IAFTTATKM KEITVRGGMFV, KEITVRGGMF, KEITVRGGMF YRPWRGTT LSNPCLCAPSY YLDRCFARNR, FARNRVC1, FARNRVCIS, FARNRVCISF, FARNRVCISFG LLANDPTYL, LLANDPTYL EEWALLDLAQI LQPALSSVF EFYKLIRFLCF, CFTFCDFV, RFLCFTCDFV, CFTFCDFVFWL CFTFCDFVFW RPNQQQT RPHSCLADV, RPHSCLADV, RPHSCLAD, MFRRPHSCL, RPHSCLADVLL ERVGRHVL, ERVGRHVL, ERVGRHVL WQNSIWHLN, WQNSIWHLNLS TMPPRSRSKTL SPRRGSSPAC, SPRRGSSP, SPRRGSSPAC MALCQNAREM GSYQGRLGF, KTYQGSYGCRL, KTYQGSYGCRL CASVAIGKLAL FFEEGMWLQY, FEEGMWLQY FLLITITL, FLLITITLGT HLSYHRLLL EPPKGVDPGAL REDSRRHGRNW VPACSHVPI LRRKVPQAQL, RRKVPQAQL EFEFRDQWGV STRFLTPV SVRSFMDLK, FMDLKIKL, CVRSFMDLK, KMISETCSV, MISETCSV, SVRSFMDLKIK	2	19:10202224 14:88792776 19:17836781 9:126128253 13:37569724 22:38895455 8:67341501 7:150034378 3:194353875 1:11184573 19:9413107 17:7906519 11:111742146 19:58879976 5:112175350--5:112175351 22:24225987 7:4796634 5:112175605 1:17265560 3:145796919 17:7579361 1:150530506 7:147914416 17:34313637 2:43452491--2:43452464 12:52215102 19:47768128 4:1388944 8:144996029 11:380921 7:139167934 5:112170822 5:72199545	C19orf66 KCNK10 MAP1S CRB2 ALG5 DDX17 RRS1 LRRC61 TMEM44 MTOR ZNF699 GUCY2D ALG9 ZNF837 APC SLC2A11 FOXK1 APC CROCC PLOD2 ADAMTS4 CNTNAP2 CCL14 ZFP36L2 FIGNL2 CCDC9 CRIPAK PLEC B4GALNT4 KLRG2 TNPO1
RDAVASAW VRVPSVTL, VRVPSVTL ARWESPWPV SSMFLRFYL, RFYLDASVORK, LRFYLDASV, SMFLRFYL HEQVYIQS, HEQVYIQS YTLRVQAL, AYQYTLRVQAL GIQSHSLK, CLNGQSHSLK LLWPGTALILL, LLWPGTALI, LLWPGTALIL, LLWPGTAL, GLLWPGTALI LHQNRNSTF PPVNRGRFAL HPVLTPTAG, TPRAGSRTT, SPTCLGHGPV, TPRAGSRTTC, HPVLTPTA, TPRAGSRT SNYKLFLFL, KLFLLFLAYSL FQFYLTVQTMQ, YLTGTVTQMYAL, YLTGTVQTM, FYLTVQTVQMY, FQFYLTV AAAATVTAAF, AAAVTAATFK, AVVTAATFK, AAAVTAATFK, AAAATVTAATFK, VTAATKEASK, AAFTKEASK, AAFTKEASKK, VVTAATFK KLCSCP, RPFSAPDACKL FMFEGWEIKL, FMFEGWEIKL, FMFEGWEI LESLVFPG LAGPGLGGY, HLAGPGLGGY TTYDRHFV FMKITMAKQLL, ITMAKQLLKI LVAARTLPV, TLVAARTLPV LEASINPARM, SRSLSLPL LEASINPARM, LRSRSLSLPL RVCACPGRDWR HRRCHKFVTF SAAWRSCIAL, IALWCASSV, AAWRSCIAL RFLHVFFF, RFLHVFFF, RLKRFHVFFF, RFLHVFFFH, VFFFLHPL, KRFHVFFF YNPYGPQTL, LYNPYGPQTL EELDALKPL	2	1:228504670 18:44400988 19:17039884 10:98133400 3:132051046 18:59166573 1:235969998 8:144945516 12:51497497 9:137688741--9:137677855 19:10202224 8:17063200 17:56693650 7:100285170 12:96077487 2:84864358 2:3:48612871 9:139752899 17:36936775 8:113241029 12:132394804 17:43482356 17:7577094 19:54387447 1:27106804 2:230661315 3:37150132 9:106885501	OBSCN PIAS2 CPAM8 TLL2 ACPP CDH20 LYST EPPK1 TFCP2 COL5A1 C19orf66 ZDHHC2 TEX14 GIGYF1 NTN4 DNAH6 COL7A1 MAMDC4 PIP4K2B CSMD3 ULK1 ARHGAP27 TP53 PRKCG ARID1A TRIP12 LRRFIP2 SMC2	STPATLTLAV, STPATLTL FLYTDLFL CANSWSTWLSL, CANSWSTWL, NSWSTWLSL CLHGASCCLDG IAFTTATKM KEITVRGGMFV, KEITVRGGMF, KEITVRGGMF YRPWRGTT LSNPCLCAPSY YLDRCFARNR, FARNRVC1, FARNRVCIS, FARNRVCISF, FARNRVCISFG LLANDPTYL, LLANDPTYL EEWALLDLAQI LQPALSSVF EFYKLIRFLCF, CFTFCDFV, RFLCFTCDFV, CFTFCDFVFWL CFTFCDFVFW RPNQQQT RPHSCLADV, RPHSCLADV, RPHSCLAD, MFRRPHSCL, RPHSCLADVLL ERVGRHVL, ERVGRHVL, ERVGRHVL WQNSIWHLN, WQNSIWHLNLS TMPPRSRSKTL SPRRGSSPAC, SPRRGSSP, SPRRGSSPAC MALCQNAREM GSYQGRLGF, KTYQGSYGCRL, KTYQGSYGCRL CASVAIGKLAL FFEEGMWLQY, FEEGMWLQY FLLITITL, FLLITITLGT HLSYHRLLL EPPKGVDPGAL REDSRRHGRNW VPACSHVPI LRRKVPQAQL, RRKVPQAQL EFEFRDQWGV STRFLTPV SVRSFMDLK, FMDLKIKL, CVRSFMDLK, KMISETCSV, MISETCSV, SVRSFMDLKIK	2	19:10202224 14:88792776 19:17836781 9:126128253 13:37569724 22:38895455 8:67341501 7:150034378 3:194353875 1:11184573 19:9413107 17:7906519 11:111742146 19:58879976 5:112175350--5:112175351 22:24225987 7:4796634 5:112175605 1:17265560 3:145796919 17:7579361 1:150530506 7:147914416 17:34313637 2:43452491--2:43452464 12:52215102 19:47768128 4:1388944 8:144996029 11:380921 7:139167934 5:112170822 5:72199545	C19orf66 KCNK10 MAP1S CRB2 ALG5 DDX17 RRS1 LRRC61 TMEM44 MTOR ZNF699 GUCY2D ALG9 ZNF837 APC SLC2A11 FOXK1 APC CROCC PLOD2 ADAMTS4 CNTNAP2 CCL14 ZFP36L2 FIGNL2 CCDC9 CRIPAK PLEC B4GALNT4 KLRG2 TNPO1

LIFDGPMDTL	2	17:7690256	DNAH2	LPEALAVISFL, LPEALAVISF, LPEALAVI	2	17:80274142	CD7
FARNNATKLI, ARNNATKL,	2	10:7605141	ITIH5	SRKSKLVVEV, SRKSKLVV	2	11:119181151	MCAM
FARNNATKL				MIVQCTVEV, GMIVQCTVEV,	2	5:140768431	PCDHGB4
RPRPRDPL, LGRPRPRPPL	2	16:88599701	ZFPM1	GMIVQCTV, MIVQCTVEVEV			
PPRSRSTL	2	5:112175605--5:112175606	APC	LLAPGSFSTCI	2	10:101544462	ABCC2
RVRFFRFR	2	19:54974318	LENG9	RFLPGTPSL	2	16:84213651	TAFC
ITWQHSTGQLY	2	20:53260081	DOK5	SEIGATPPA, SEIGATPPAA	2	10:13696452	FRMD4A
NDDLFMMPQI, FMMMPQIVNV	2	15:42058229	MGA	FQMWISISL	2	6:161469829	MAP3K4
KEIPLLQLSL	2	12:77449827--12:77449858	E2F7	VSSTRSYLV, LASHTVSSTF,			
ILPEFHILTV	2	3:151046142	P2RY13	ASHTVSSTF, RSYLVTSISKL,	2	10:127483521	UROS
KEFVCHWGA	2	12:57860075	GLI1	STFRSYLV, HTVSSTFRSYL,			
SLFLGSHPF, ISLFLGSHPF,	2	3:40529660	ZNF619	STFRSYLV			
GSHPFRAIL				MENFCRAIGL, MENFCRAI,	2	3:127831743	RUVBL1
MISETCSVRSF, FMDLKIKLAM	2	5:72199545	TNPO1	MENFCRAIG, MENFCRAIGL			
AEFKKETFDVM,				FFENLDSRQKF	2	14:96761299	ATG2B
KETFDVMLEPL, KETFDVML,	2	6:6174830	F13A1	ILDTAGHEEY	2	12:25380275	KRAS
KDFMLEPL				YEIRICRPCEI, YEIRICRPC	2	9:5968511	KIAA2026
WRMWWHPA, WWHPASRPWL,				TRLHTAHSTL	2	17:70120314--17:70120194	SOX9
SQSMGHWWWW,	2	2:219920405--2:219920368	IHH	VEQSITIVW, EEQSITIVW,	2	1:228466896	OBCN
RMWWHPASRPW				EEQSITIVWGL, EQSITIVW			
FVDLWALVLET	2	15:42371752	PLA2G4D	IQSKDTI	2	1:151552161	TUFT1
KPTIRLT	2	3:151046142	P2RY13	ALDRRFYL, IALDRRFYLM,	2	1:93169000	EVIS
RTMTTTKMKM, MTRRTMTTTKM,	2	18:45567085	ZBTB7C	IALDRRFY			
RTMTTTKMMMM				FTHNHQFFCL, LRICQSIVL,	2	13:67800833	PCDH9
YQSSIIHSKYKI	2	1:227843477	ZNF678	FQFFCLRI			
MATKMATL	2	6:11185508	NEDD9	RANCLCYLFL, RANCLCYL	2	9:36169902	CCIN
FIICGMLYV	2	9:138011798	OLFM1	KRVCVTEL	2	1:186269343	PRG4
RWATWLSLAL, RWATWLSL	2	10:124895627	HMXK3	KQIPDGFLPI	2	1:78338701	FAM73A
SPMTPMTPM	2	22:38483155	BA1AP2L2	SKLQMIWAF, QMIWAFYL,	2	1:35972480	KIAA0319L
MAALVRPSRF	2	17:685640	RNMTL1	LQMIWAFYL			
KIYPPSGSPK	2	11:128842602	ARHGAP32	HTRLHAPPSTM, HAPPSTM	2	8:145109542	OPLAH
LQPSKFKPLF, YQFSRLQPSKF,				LPLPPVPFL, LPLPPVPF,			
SRLOPSKF, RLQPSKFPLF,				HPLPLPPVPF, HPLPLPPV,			
SRLQPSKFPL, QFSRLQPSKF,	2	5:13830840	DNAH5	HPLPLPPVFL	2	7:128852004	SMO
SRLQPSKFPLF				SQNSGLINHQI	2	18:32917323	ZNF24
AQRWSCHTL, QRWSCHTL	2	1:110169810--1:110169868	AMPD2	KTSTSGLM	2	5:57753012	PLK2
GAREAGRAFVALE	2	1:150530506	ADAMTSL4	LPRIKSQT, LPRIKSQTIA,	2	1:1565611651	APOA1BP
KRAANIAEALY, KRAANIAEAL	2	5:158140131	EBF1	LPRIKSQTI, LPRIKSQTAC			
GRLRGPACL	2	2:43452342--2:43452464	ZFP36L2	ILFQRLYGPQA	2	5:169805848	KCNMB1
ALMTFLLA, FLLASWCVPKV,				SFPPLRPLA, SRTSFPPPRL	2	6:31762843--6:31762844	VARS
ALMTFLLAS, FLLASWCV,				LAAVPPPM	2	16:84213434	TAFC
ROHRSALMTFL,				LRSASSTF	2	17:42153276	G6PC3
LMTFLLASWCV, ROHRSALM,	2	16:50745399	NOD2	RSHWLPSPWH, WHLPSPHM,	2	1:27876869	AHDC1
LLASWCVPKV				HPMQQTPTTA			
				RQSANLYVHRI	2	4:436526-4:437198	ZNF721

TRMSWWSY, TRPRTRMSWWSY, RRAPTRPRTRM	2	19:6213976	MLLT1	WLWYCWPWTWL, WYCWPWTWL,	2	1:27106804	ARID1A
WLPVSRRLP, RRQSSPLEV, HRRQSSPL, HRRQSPSLEV	2	17:63533939	AXIN2	GRVGKSAALTI	2	1:115258745	NRAS
FKFINWSSL, FKFINWSSL, TTDCQLML, LAITDCLQML	2	2:220494118	SLC4A3	RSPAPPTRGRL	2	X:135956575	RBMX
APRSTRPA, TPRATRPSAC, TPRATRPSCA, APRSTRPAT, TPRATRPSAC	2	3:151545601	AADAC	KSTSVAI, STSVSAIM,	2	13:102375233	FGF14
HELSQPTLQPA, HELSQPTLQPA, ILYHRWIV, YLGRTLLVTCI	2	3:41267325	CTNNB1	KSTSVAIM	2	1:20371449	ITGB8
RPVQRSSQRA, RPVQRSSQRRAP	2	2:43452512--2:43452623	ZFP36L2	GVTCSWTGPR, FCTSWTGPRL	2	9:101900288	TGFBR1
HWGHTKLA, SRLFAEKTPL, RLFSAEKTPL, GLQSLRFSA	2	1:154932027	PYGO2	LWFREAI	2	1:54745497	LILRA6,
WARAHHLAV, STKTRQRV	2	10:890939	LARP4B	YYYTNTPRC, YYYYTNTPRC, CPTKSQVPP	2	1:65157116	LILRB3
LEVIATHPT, RRWTRATA	2	17:73518328	TSEN54	SRTSWCWP, RRASRTSCWPML	2	19:5231449	CACHD1
LELPAPVEPPA, KTLESAGLF, KTLESAGLF, SSHPWTLSL, MFTYVFHDEF, FTYVFHDEF	2	5:179251037	SQSTM1	RRASVPCPML	2	1:204228411	PTPRS
EVVVHKRGLF, SPRSWGPRL, VPSPRSWGPRL, GPRLGPGARI	2	10:17039884	BAIAP2L1	SLLSVFLL, CSLLSVFLL, FLLVRPHI	2	4:156716530	PLEKHA6
FPRPRPFL, FPRPRPFLA, FPRPRPFLAS, RSCVVAVATW	2	10:105233172--10:105233174	CPAMD8	TFICRSTL, CRKTFICRSTL, CRSTLSQHLRI, CRSTLSQHLL	2	19:36832181	GUCY1B3
RPPVTQRL, RPPVTQRLV, RPPVTQRLV, FATEVLQMDFL, FATEVLQMDFL, QOFDPLWKRW, KRWNVCEVOLP, KRWNVCEVOL, VAMRAQRASRM	2	19:49611319	CALHM3	KQLLFLRV	2	5:57753012	ZFP14
FATEVLQ, LPEFHILTV, SGPGBTPSL, TWGTLRAPSSF, SRLLEEKVCAL	2	2:70315174	ULK4	SVGKHVSFFP, SVFVPLFLV	2	19:12155709	PLK2
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL	2	19:4860985	PLXNA4	GRTGRHVLSF, GRTGRHVIL	2	X:31224764	ZNF878
FATEVLQMDFL, FATEVLQMDFL, RPPVTQRLV, RPPVTQRLV, FATEVLQ, LPEFHILTV, SGPGBTPSL, TWGTLRAPSSF, SRLLEEKVCAL	2	2:19:1231142	ACVR2A	QEARGPVPAL	2	17:70117710-17:70117715	DMD
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	TGIF1	MANMYQWIRV, FPFDLIIM, FPFDLIIMANM	2	14:96761299	SOX9
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	SNRNP70	ILFESSVYY	2	1:111216188	ATG2B
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	PCBP1	KTHPCTMILL	2	7:91936914	KCN3A
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	APC	FSKLQVLCCL	2	1:203311557	ANKIB1
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	MED16	AQRASRMRWW	2	19:871222	FMOD
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	YIAMQGPL	IILETVATAGV	2	2:220161201	PTPRN
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	KLMHTKIDK, LMHTKIDK	KLMHTKIDK, LMHTKIDK	2	12:13061271	GRPC5A
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	FKFNLTPKWL, TPKWIRYFYRI	CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM	2	10:91497569	KIF20B
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM	CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM	2	4:15689376	FAM200B
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	NPIEASLYGL, NPIEASLY	NPIEASLYGL, NPIEASLY	2	16:20335551	GP2
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	KFDFSRQLS	KFDFSRQLS	2	5:112862360	YTHDC2
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	KAISTRDPLSK, AISTRDPLSK, STRDPLSK	KAISTRDPLSK, AISTRDPLSK, STRDPLSK	2	3:178936082	PIK3CA
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	IPPTGSPF, WTIPPTGSPF	IPPTGSPF, WTIPPTGSPF	2	7:100855927	PLOD3
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	DQLPPSLRWL	DQLPPSLRWL	2	20:60887581	LAMAS
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	LETVHESNCIF, HESNCIFAF	LETVHESNCIF, HESNCIFAF	2	16:23113703	USP31
CECYAMYVY, YRLCECYAMV, CECYAMYV, YRLCECYAM, NPIEASLYGL, KAFDLSRQLS, KAISTRDPLSK, STRDPLSK, IPPTGSPF, DQLPPSLRWL, LETVHESNCIF, HESNCIFAF, KKMMELEW	2	19:4860985	KKMMELEW	KKMMELEW	2	18:12699829	CEP76

VYQLRHFSIYF, YQLRHFSIYF, YQLRHFSIY, QLRLHFSIY, IYFLSSL, YQLRHFSIYFL, GVYQLRHFSIY, LRHFSIYFL, VYQLRHFSIY, LRHFSIYF	2	13:45010694	TSC22D1	STVCCMHHLHEK, TVCCMHHLHEK	2	4:153249385	FBXW7
VAAVCCVQY VEAVDHGPPM, VEAVDHGW GETATAGAPPA	2	4:153247289 22:46931077 7:100285170	FBXW7 CELSR1 GIGYF1	IMFASIPDFK, CIMFASIPDFK QDIPDGLFW, WMLTC TTLSV, WMLTCTTL	2	5:7802364 1:151206914	ADCY2 PIP5K1A
FFRRLVSTL, FFRLVSTLN, LVSTLNFSV, TLNFSVATFML, RLVSTLNFSV	2	10:94243045	IDE	NRCQRPSRTRL, CQRPSRTRL VPIMAHHPL HLYLQDLDFIF, ILVPFFHLY	2	7:94897945 1:55081757	PPP1R9A FAM151A
CYDKDRNYY	2	11:1261118	MUC5B	RLSPTHPL, ARLSPTHPL MTACSI LAS LLTSSREWKV	2	10:126714966 2:220130522	CTBP2 ZDHHC8
GSDYGHHW, SYDGHHWMEI, GSDYGHHWMEI, SYDGHHW	2	22:50943232	LMF2	AALLCGMREM RPPWHGLM, CPVHRPPW	2	15:45003781 7:128852004	B2M GPRIN2
RRHLWGPF FLWRAAGPRPM RTSAATKAL FIFSLTSPSI	2	17:70120314--17:70120345 19:36122298 18:45567085 8:77767750	SOX9 RBM42 ZBTB7C ZFHX4	HPCCHPCLAL SRQPASGPHL, RSRQPASGPHL FGFDVPPPTPI AENARSCIQAY	2	19:10433828--19:10433397 2:219920368--2:219920405	RAVER1 IHH
QRRSHPLGKQL, RRSHPLGKQL	2	19:7592423--19:7592444	MCOLN1	TEKGTFRL, TEKGTFRLRW RSNLNGIMPDR, SLNFGIMPDR	2	17:46629736 5:64905248	HOXB3 TRIM23
STYDLSPIEWL IQMLTPGSY	2	1:211654526 14:23549379	RD3 ACIN1	AARARAVP, AARAARARVA, AARAARARV	2	20:23966824 11:75590944	GGTL1 UVRAG
RRPLPHRPL, HRPLQPPQPL, SRCPSRRPL, SRRPLPHRPL HEFTGTRAV, RAVPRITV, LSHPVYCGHEF	2	1:203144870	MYBPH	SQNKRAMRRL RPAFP PRRPA, APRP PRRPA TYPAPYLSLV	2	19:1746629736 16:88599701 15:58467216	ZFPM1 AQP9
RRVQRLQW IPRKHTWV, IPRKHTWVV SRPSWPSCP1 LGRSFLPL	2	19:36530332--19:36530343 2:166135296 11:67176565 16:2059622	THAP8 FAM78B TBC1D10C ZNF598	VRCCCWL SL, LASPLS TSTM, WRPWAGCWV, WLSLASPL SLITFICKHLF, ITFICKHLFY, FICKHLFY	2	11:618971--11:618999 22:18300932	CDHRS ZFP1 MICAL3
APTSPLNPA, APTSPLNPA, SPLNPATRPA KMYTTSMAMPI, MAMPILPL HRPELQLLL RQE LLDI NEL, QELLDI NEL, RQE LLDI I, TERQELLDII ATADLLALA GADGPAL RSWNTMQW KLSNAKIAY RTFKFMKGHK VTDNQIYW MALNTTKTOSK, AMALNTTK CLSDEDLFK SESSLSSG	2	22:46449891 1:27100176--1:27100350 17:70120194--17:70120314 5:122685653 19:17000632 2:36825137 3:77657038 17:42882279 19:11943750 12:12317235 2:158115364 9:339015 17:7798765	C22orf26 ARID1A SOX9 CEP120 F2RL3 FEZ2 ROBO2 GJC1 ZNF440 LRP6 GALNT5 DOCK8 CHD3	AARARAVP, AARAARARVA, AARAARARV DEFVKII FS VI, VKII FS VI AVMDKRRNL YSDTG NH ASM, IYSDTG NH ASM FLISDDLSRV WVLGTFAL MLNNRLVGL, MLNNRLVGL SV PRMSWC SSL, RMSWC SSL APRHARTA, APRHARTAT ST, RPAT VAAA, APRHARTAT, APRHARTAT S FITV LHK QINK	2	6:31778966 16:88599701 11:618971--11:618999 22:29837569--22:29837567 1:82447508 16:57713122 6:33263965 16:2059622 6:64421713	RFPL1 LPHN2 GPR97 RGL2 ZNF598 PHF3

FTSVPPGFK, TFTTSVPPGFK GLLQLWKQK, LLQLWKQK SPFIYFFL, APREQKKISPF KLSERNLKCFL APSISAPSTL, SPASAPSTL ARIRVAKTGS L, IRVAKTGS L, SLNAYLHSKR, SLNAYLHSK VTATRTTL, VVVTATRTTL, VVVTATRTTL, MVVVTATRTTL HSNHLCLL LLSLWTLF MNQRPILT LADVLVS VH L, LADVLLSV, LADVLVS VH LFEAWLLL, LFEAWLLL, MMIGSQHLLF, MMIGSQHLLF KMMIGSQHLLF, MIGSQHLLF EEFSQVM TLDV, MTLDV FYEL, CEEFSQVM TLDV, TLDV FYEL SK, EEFSQVM TLDV, TLDV FYEL SK, IRPGRH PPL LPSPPV RST, LPSPPV RST VC, SPPVRSTVCAM, LPSPPV RSTV, PPVRSTVCAM, SPPVRSTV, APLA CLHL MMDPHENI, MMDPHENIL SSSEENVC GSY LEAHFEAL, LEAHFEAL SL, HOF PLEAH FFICGPV GOYVTFLRY, FLRY FSDK QK, YFSDK QKISL, YFSDK QKISL, VTFLRY FSDK, VTFLRY FSDK, FLRY FSDK SYPEFQSSV, TRRSYEF, RSYPEFQSSV AEHSMTPSF, AEHSMTPS, FMAEHSMTPSF FSMMC KEDL NTMMNNNDLV, TMNNNNNDLV LRFNLPFRCYL, FNLPFRCYL	2	20:30789952 2:1201437832 5:140857742 6:116836954 8:70744643 1:112323370 15:41146715--15:41146120 17:37627694--17:37627688 3:168833257 17:577538 5:112175424--5:112175351 3:77657038 14:93730195 7:97933623 12:121432115--12:121432118	PLAGL2 PHLDA3 PCDHGC3 FAM26E SLC05A1 KCND3 SPINT1 CDK12 MECOM TP53 APC ROBO2 BTBD7 BAIAP2L1 HNF1A	CPASPHSPGA, CPASPHSPGA, SPHSPGAS PM, HPAARSSCC, SPHSPGAS PM, CPASPHSPG, SPHSPGAS PM, SPHSPGAS PM, SPGASPM SL LRLLLLPL LENNQFVV IRQKPVNLL, RQKPVNLL YINSGNIPN YL, NIPN YL FDF, NYLF DFF EHL, GNPN YL FDF, INSGNIPN YL, GNPN YL FDF, NIPN YL FDF, GNPN YL FDF FAQAAFW NH VAM, TFAQAAFW AAHGPGEASAM RLVATPAL FSKWC RPWL REASLRW VWRV, REASLRW WR, ASLRW WR VFY VSTS GRST FCV MSMGGPLL SRPHSARL TA, SRPHSARL APPASWAL, RPALQ APPA, RPALQAPP, RPALQAPP AW GFWL PPMF, RFCS GVL SG FW, RFC GVL SG FW SLAST CWL SPMK SF LSEL KTDEV VLT PH, DEV VLT PH KVWW RL CK TY KETWVN FH, SEKKETW VN, GESEKKETW MSAFDP LK GPT RH HPA, GPT RH HPA RTMQL VVL, RTMQL VVL VTA FW RS LL IPLTRW KPL, MV MEQA I PL, TRW KPL QT VR, TRW KPL QT LPAA APP VRL, LPAA APP V ARAPHL QVA, SRCP SARAP HL ARAPHL QV ILWTFK FI MMVR HTQ SSPV	2	19:41858921 1:154304153 16:81969848 2:32475156 12:53647137 7:5427720 22:20130522--22:20130515 X:56591874 9:32633583 12:53647137 7:5427720 22:20130522--22:20130515 X:56591874 9:32633583 16:2059622 5:13830840 12:122018740--12:122018773 9:137677855--9:137688741 8:120220776 2:219920405--2:219920368 17:5987686 5:82817499 3:38616871 18:74778307 3:100451455 X:54209387 10:43604533 19:51015404 6:151673000 2:43452491--2:43452464 11:618999--11:618971 13:6596949 10:24813454	TGFB1 ATP8B2 PLCG2 NLRC4 MFSD5 TNRC18 ZDHHC8 UBQLN2 TAF1L ZNF598 DNAH5 KDM2B COL5A1 MAL2 BRIP1 VCAN SCN5A MBP TFG FAM120C RET ASPDH AKAP12 ZFP36L2 CDHRS RAG1 KIAA1217
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WMLRLHFP1, LEYWMLRLHF, YWMRLHFP1, LEYWMLRLHFPI	2	14:21793439	RPGRIP1	MPQMQLQALAM, VTFPPGTAM, TAMPQML, MPQMLQAL	2	17:40939870--17:40937417	WNK4
WAFFICTSKL	2	1:156912567	ARHGEF11	PPMFPLYLY, LPPPMFLYLYY	2	8:120220776	MAL2
NLLSRSRR, YSGNLLSFSRR, YSGNLLSFSR	2	2:96078466	FAHD2A	PVYPTRLPR	2	19:10202224	C19orf66
CTALWVAVF	2	15:65678360--15:65678319	IGDCC4	RSHPRPLPA	2	11:118773098	BCL9L
FRVLIPQIARV, FVFRVLIPQI, VLIPQIARV, FRVLIPQI	2	9:92006198	SEMA4D	AEGATTADV	2	19:49116359	FAM83E
ILFAVRVPISA, ILFAVRVP1	2	12:123351891	VPS37B	SSWSSGR	2	19:49850473	TEAD2
LPDHCVHOPV	2	2:1207139176	FCAMR	SPFRCYLTY	2	17:7577065--17:7577036	TP53
RQLGSAAAEQW	2	10:135000159	KNDC1	AEAAPASPL, AEEAAAPASPL	2	16:88599701	ZFPM1
SVRQALCOL, LASVRQAL	2	8:145737816	RECOL4	LLLALSFASL, VAAARGLLLAL,	2	16:28847356--16:28847350	ATXN2L
TTNYDFSLYM	2	5:160753376	GABRB2	LLLALSFASL, GLLLALSFA,			
GTDTLLIQDNV	2	13:20399175	ZMYM5	LLLALSFA, LLALSFA,			
VRQALCQL	2	8:145737816	RECOL4	KTWGFFHNL, KTWGFFHNNL	2	19:37134730	ZNF461
WRLLQAQAA	2	1:6614391	NOL9	CYNVALEY, YHFCYNVAL,	2	1:29652132	PTPRU
LLHLHLHEPR, RSAPHVPHR, RSAPHVPHRR, RSAPHVPHR,	2	17:70119909--17:70120345	SOX9	YHFCYNVALEY	2	X:10181921	CLCN4
HLHLHEPR				FTHCTLATDVM	2	10:71332204	NEUROG3
MNHQRTNSI	2	3:123044275	ADCY5	RPGLLGATSSA	2	KPPRTPPHPAA, HPAARSSSC,	
LEEAGWTLL, LEEAGWTLL, SLEEGWTLL, EEAEGWTLL	2	15:41797016--15:41797050	LTK	HPAARSSSC, HPAARSSS	2	17:25910016	KSR1
TRVRVMAI	2	17:7578454	TP53	LPRAGTGT, YPTRILPRAVT	2	19:10202224	C19orf66
MHNDFNVM	2	12:130839451	PIWIL1	LPRAGTGTRIA	2	8:145738768	RECQL4
REAGRFAVL, REAGRFAV	2	1:150530506	ADAMTSL4	RAFMQGQLGVV	2	YANYSYASY, SYPAKAYANY,	
VVICQFILL RVIPICALYV	2	5:138643806	MATR3	AYANYSYASY, KAYANYSY	2	7:96653656	DLX5
ARRRRSSA	2	10:27389197	ANKRD26	GEAALTG, GEAALTCGG	2	7:100285170	GIGYF1
TYMGNSTKL	2	8:116617112	TRPS1	MTNTGPL	2	16:30041821	FAM57B
VLLAHIMSRL, LLAHIMSRL	2	2:X:1584668	P2RY8	YSKESNYLY, YSKESNYL	2	8:30704275	TEX15
LPDPPTASAL	2	17:80274162--17:80274159	CD7	KYSVPSLLSV	2	3:169802469	GPR160
KENCQGWTV	2	12:110449927	ANKRD13A	GLLCPALHLV, LLCPALHLV	2	X:56591874	UBQLN2
RPSTLPTPPSC, LPTTPSCL, RPSTLPTPPS, TPPSCLARVSV, LPTTPSCLARV	2	20:3215484--20:3218646	SLC4A11	HMWRAIJQTAF	2	17:67247996	ABC5
GRCTCVRSTAL, TALKIWLVL, VRSTALKIWL	2	6:30863251--6:30864547	DDR1	MASPGRLL, GRLLCVLGLLL,	2	8:63951312	GGH
SRSPAAAVRV, SRSPAAAV	2	3:52550119	STAB1	GRLLCVLGL			
SQIKCVEL, IELSIQKCVI, SQIKCVEIV	2	5:156635937	ITK	SFQTEVSYL, FQTEVSYL,	2	20:16493483	KIF16B
NRSLPGTRTM	2	5:154173390	LARP1	FQTEVSYLEI	2	1:49052793	AGBL4
IAANLSLLL	2	16:5075633	NAGPA	CRFLGGLL	2	21:41151173	IGSF5
COACSLPAWQL, SLPAWQLSL, QCACSLPAW, WQLSLHTW	2	2:219920368--2:219920405	IHH	LTRCCCCRHHR			
				FLTRAVPM, STVPFLTRAV,	2	15:75942664--15:75942736	SNX33
				FALRPSTVPF	2	19:17837512	MAP1S
				LFPGCTPPAYL	2	17:7577538	TP53
				GMNQRPL	2	FYQLAKTCPV, YQLAKTCPV,	
				YQLAKTCPVQL	2	17:7578526	TP53
				AIWFQTYL, LAAIWFWQTYL	2	2:9098719	MBOAT2
				SMACHLQPL	2	19:46832495--19:46832587	HIF3A

LLFDNTTVVV, LLFDNTTV, LLFDNTTVVV	2	1:67724321	IL23R	YYILPRKV1, VLPDADTYI1, YYILPRKV1, VLPDADTYYL1,	2	5:112175752	APC
HAAPPLPTAL, AAPPLPTAL CTIDGLLMILY, CTIDGLLMILY, TIDGLLMILY, CTIDGLLM	2	17:63533939	AXIN2	YYILPRKV1QML			
	2	14:45369824	C14orf28	GLLSIADFR, GTGLLSIADFR, LLSIADFR, SIADFRTVLR	2	22:43926712	EFCAB6
VTVP CGHTF	2	6:30131546	TRIM15	LPAGAAAQVA, LPAGAAAQV	2	2:43452491--2:43452464	ZFP36L2
STVTAAPSGQY, TAAPSGQY, TAAPSGQYF, VTAAPSGQYF, VTAAPSGQY, ISAPQPSSTV	2	6:160485488	IGF2R	VTAGVGLTATL	2	1:3410404	MEGF6
KTHSRHTF, TFAERTECVEF	2	2:98750294	VWA3B	IRSVATDKWA, RRSRSQQSWMRL,	2	1:156912567	ARHGEF11
KADQLAQMSI	2	1:220247379	BPNT1	RRRSQQSWMRL, RRSRSQQSWM,			
SAACSPSPF	2	19:871135	MED16	MRLGAGRKSLL, RRSRSQQSWM	2	17:43482356	ARHGAP27
KKMMIGSQHLL	2	3:77657038	ROBO2	LSSELLQF, SSELLQFQV	2	18:29041236	DSG3
VPLVASIASV, VPLVASISA	2	1:22191454	HSPG2	APFRVNHA	2	5:112175350--5:112175346	APC
SSCAPPLHRR, CAPPLHRR	2	18:3452223	TGIF1	GDYEIFGL, YEIFGLGPWAV	2	5:167990927	PANK3
SLMNMSMV, LERSLMNV, FTLERSLMNV, FTLERSLMNV, REFTLERSL, LERSLMNV, FTLERSLM, REFTLERSL, LERSLMNVMSV	2	3:44636243	ZNF660	AQFGTVT1	2	5:140222014	PCDH18
				SLTMNPLENVY, YSDDDLMET,			
				YSDDDLMETLY, YSDDDLMETL,	2	3:135721560	PPP2R3A
				YSDDDLMETLY, LTMNPLENVY,			
				TMNPLENVY			
				LELIQITINNI	2	8:68116980	ARFGEF1
				KRLFWMRRLL, RLFWMRRLLWCF, WMRRLWCF, MRRLLWCFRQL,	2	7:2638193--7:2641075	IQCE
				RRLWCFRQL			
				SARPGPWRSTA	2	1:204228411	PLEKHA6
				YPVQRLPFPST	2	2:24674803	D2HGDH
				SEEEEEEVPL	2	6:109767002	MICAL1
				ATCATTRAPR, TSATCATTR	2	2:60688969	BCL11A
				AQNPSLRMWL, MWLGLTHSPM	2	16:88494506--16:88494491	ZNF469
				TRAHERPHPL, RAHERPHPIH,	2	15:59376343	RNF11
				RAHERPHPIH			
				EADMRRSSEL, DMRRSSEL	2	19:33167455	RGS9BP
				QYSDIGILYI, YSDIGILYI	2	11:121000473	TECTA
				YSDIGILY, YSDIGILYI			
				SPNGKYYVIA, NISPNGKYYV,	2	7:94937330	PON1
				GINISPNKG			
				LVVVGAVGVVK	2	12:25398284	KRAS
				VTFKPSSEYEL	2	5:82837443	VCAN
				AGIINSLLT1	2	11:103029471	DYNC2H1
				KQISRSSQSL	2	21:38512962	TTC3
				KMKPHPIAI, KMKPHPIAI	2	2:176938834	TTN
				AREAAAAAGVL	2	18:48723146	MEX3C
				YRKSGTHQM, IYRKSGTHQM	2	11:58958609	DTX4
				FARAKKWKEL, ARAKKWKEL	2	3:20017562	RAB5A

SSTPCTVL, LTAPGVCWPL, LTAPGVCWPLL	2	19:42861055--19:42861727	MEGF8	HCMRDILFTF, RLHCMRDILFTF, CMDILFTF	2	3:38888499	SCN11A
SQAPCLGTW, CLGTVAWV, SQAPCLGTWAW, RMSTVSQLPCL	2	1:110168968--1:110169810	AMPD2	SRKKMVHRVV, HRVVCILV, SRKKMVHRV, HRVVCILVWL, HRVVCILVWL	2	2:237489590	CXCR7
CFSDNALPY, RYCFSDNALPY SSWSGCVVQM	2	15:40259920	EIF2AK4	TFTPSASPL, FTPSASPL	2	3:52550119--3:52551362	STAB1
VPIPNTRV	2	17:7402719	POLR2A	ITMAKQLL	2	8:113241029	CSMD3
GRSYDTYTPPI	2	16:88494491--16:88494506	ZNF469	FLTPDPGA	2	20:49411698	BCAS4
KSHHRRVVFSH	2	11:31812317	PAX6	CPASRLAVPA, CPASRLAV	2	17:36830727	C17orf96
QPPLSLAI	2	18:34205516	FHOD3	FRDRNTRI, FRDRNTRIL,	2	11:58962827	DTX4
APSALGAL, AAHRAAPSAL, AAHRAAPSAL, APSALGALT	2	1:155041387	EFNA4	AFRDRNTRL	2	19:4816465	TICAM1
ALLSEGELDEL, DELPAACL, GLDELPAAA, GLDELPAACL	2	6:18122506	NHLRC1	SRSPQSPSL, LRPHPHPL	2	10:81072446	ZMIZ1
FLIIWQNTM	2	20:37555116	FAM83D	VTMTSCLY, YLDPPTCRAIV, VTMTSCLY	2	1:16462199	EPHA2
VENLYPNDDII	2	11:104878041	CASP5	RREPTPTATM, RETPTATM, ARREPTPTATM	2	1:3410404	MEGF6
GEKNQLTRDW	2	14:105393950	TNFAIP2	TLSPNSAF, HAHQGAQEPPV	2	2:56219767	MIER3
LPAEKEVTELY, LPAEKEVTEL	2	2:231931680	PSMD1	TRFGKKNITI	2	6:18122506	RNF43
LPRCGCSASS, LPRCGCSAS	2	3:1323338375	ACAD11	RRAPPACHWL	2	17:56448298	NHLRC1
IHIPRSLSV	2	16:2059622	ZNFS98	ALGALTCHHTF	2	12:6657973	IFPO1
ERALFRSL, ERALFRSLNL	2	3:170013720	PRKCI	RRGGHLPV, CRRGGHLPV	2	2:189454468	GULP1
IIYLIPRYVR, YLIPRYVRDL, IIYLIPRYV	2	4:87671632	PTPN13	MHQHQRWRGSKW	2	19:38028415	ZNF793
21:10916378	2	TPTE	LTQERSPM, LTQERSPMGAM	SENPFKDKKI	2	1:68171151	GNG12
RWKPLQTVRLM	2	6:151673000	AKAP12	QTINNIVFF	2	8:68116980	ARFGEF1
VRNSFEVVR	2	17:7577141	TP53	EAMFLWRAAV	2	19:36122298	RBM42
KSYNFNTF	2	9:99581565	ZNF782	TAARRRWLF,	2	11:837543--11:837536	CD151
SSCLQIHQK	2	19:44778797--19:44778796	ZNF233	TAARRWLFV	2	1:156561651	APOA1BP
EQALPLWTV	2	1:108700183	SLC25A24	SRLPRIKSQTI	2	5:13928280	DNAH5
LEVEEWSDM	2	11:115099985	CADM1	LEGNQIEI, IEIIDQLFAV, NQIEIIIQQL, LEGNQIEII	2	13:61103095	TDRD3
FGEPEPPAPPV	2	X:128926360	SASH3	YQNPVQSNF	2	20:21493012	NKX2-2
WSHHRRML	2	19:16038110	CYP4F11	LSAAAAPV	2	10:1094906	ID11
ALFPKGQSQSV, ALFPKGQSQSV	2	4:48597671	FRYL	HAFAGLKJY	2	3:38866823	LRRN1
LPAFDAIDM	2	4:8603117	CPZ	LSSLCVLLH, LSSLCVLL	2	3:151046142	P2RY13
AMILWTLVSL	2	1:46120890	GPBP1L1	FILPEPHI	2	10:101544462	ABCC2
LISTNPNFNF	2	17:10258071	MYH13	ILLRSYSL, SKYSLVFFL, LLRSYSLVFFL	2	1:204228411	PLEKHA6
LPRPSVVI, SFASLRPRSV	2	16:28847356--16:28847350	ATXN2L	AVRTSMLT, AVRTSMLTLL	2	7:150698398	NOS3
RSRSLELELQI, SRLELELQI	2	11:830670	EFCAB4A	ASPGRRPLK	2	13:99738554	DOCK9
VOLLGADSW	2	18:3452223	TGIF1	TRKFTWAL, SAETRKTFTWAL	2	12:66622063	IRAK3
ISKFCFTGK	2	2:163130424	IFIH1	LPWHIQIGI, APLPWHIQI	2	2:43452491--2:43452464	ZFP36L2
KFLNSTNSWW, KFLNSTNSW	2	2:27248517	MAPRE3	APLWHIQIGI	2	8:22428658	SORBS3
RTDVMMNV	2	19:52888438	ZNF880	RPRVAAA	2	2:43452491--2:43452464	ZFP36L2
SEGNTPLTCM	2	7:100681721	MUC17	LRSPADPTDL	2	2:43452491--2:43452464	ZFP36L2
DPSLCMFPEPL, DPSLCMF	2	2:46987060	SOC55				

IMANMYQWI, IMANMYQWIRV	2	14:96761299	ATG2B		APSVRGDAV	2	20:62321691	RTEL1
IRGSTLCF, IRGSTLCFL	2	11:14515315	COPB1		CNIRFSRHETY, RHETYTVHKRY	2	16:88599701	ZFPM1
MPAPKSCCTGF, FAFTPIGL,	2	19:17955112--19:17954643	JAK3		RMMRRQWSLWV, RQWSLWVL	2	6:116836954	FAM26E
APKSCCTGFAF					HPKVHLNTMF, MFRRPHSCL	2	5:112175351--5:112175350	APC
ALLGASAPCGA	2	1:150530506	ADAMTSL4		ASSVLPCHSSL	2	2:73302665--2:73302655	RAB11FIP5
LENIQSIF	2	X:138697171	MCF2		VVMDRICSPL, VVMDRICSF,	2	6:90397868	MDN1
KRFEGINIDF, KRFEGINI	2	17:11597209	DNAH9		VMDRICSPL, VMDRICSF			
HWKSQTLOF	2	4:81967605	BMP3		LFPSTTCKL, FSNCNSLF,			
LVSKARPAL, RPALQAPPAW,					SGLFPSTTTK, GLFPSTTTK,	2	8:100520130	VPS13B
RPALQAPP, RLVSKARPAL,					GLFPSTTTK, CSGLFPSTTTK			
RPALQAPPA					TVFGFFLKYYTV	2	18:7036080	LAMA1
KNLKWLQL	2	22:21988833	CCDC116		SRCSPTTLSL, LRSRSLSL,	2	17:43482356	ARHGAP27
QPLSATPSRVL	2	1:228559450	OBSCN		SLLTCSWL	2	11:66055105	YIF1A
HRKELCSSV	2	2:100210199	AFF3		RPSTRFLTVP, RPSTRFLT,	2	7:139167934	KLRG2
IPIRRHTRST	2	12:4479724	FGF23		SPRSPTRFLT			
KRSAWRKTTWL	2	16:57113024	NLRC5		RLEHPWTITDM	2	2:171572940	SP5
ROHRSALMTF	2	16:50745399	NOD2		WTVAPTL, HQVCPWCWPW	2	17:41610700	ETV4
AAAPTOQL, RAAAPTQQL	2	1:228559450	OBSCN		RPLPARDKHAL, LPARDKHAL	2	6:70423652	LMBRD1
LESWRSTW	2	10:102762593	LZTS2		MPPSSPMSML, MASLCWSTV	2	19:17836781	MAP1S
TRPEPPAPV, TRPEPPPAPV	2	3:52550119	STAB1		HEIIHTGGKPY, YASHIVQHEII,	2	19:38230678	ZNF573
YLRFGVQVL, ILYLRFGVQVL	2	6:159049469	TMEM181		YASHIVQHEI			
AEAPADCGPAQ	2	8:145747920	LRRC24		YILGSVDK	2	12:124317763	DNAH10
DRIGYFPAL	2	17:73501069	CASKIN2					
QLNQIQR	2	6:109294665	ARMC2		SERDYNMDF, RESERDYNM,			
FVIIVFAYV, FVIIVFAY	2	2:167162315	SCN9A		RDYNMDFLTL, RDYNMDFL,	2	1:100889837	CDC14A
SSAARAMG	2	7:100285170	GIGYF1		SERDYNMDFL, RESERDYNMDF			
FASVNNYFI	2	13:48615145	NUDT15		HLVSQSIIY, KLHLVSQSIIY,	2	3:193332592	OPA1
IQLMITTRNFW, SAKNSNIQLM,					KLHLVSQSIIY			
QLMTRTRNFWPM, MTRTRNFWPM,	2	8:92352747	SLC26A7		FTSLSASLPR, TSSLSSASLPR,	2	16:50745399	NOD2
LMTRTRNFWPM					LSSASLPR			
SLLERVLFYR, MSLLERVLFYR,	2	3:3067806	CNTN4		RSRRENVNGLY	2	14:59113430	DACT1
RVLFYRAR					SYIHYVFHL, YVFHLPNTY	2	1:63021531	DOCK7
LTSKLFSYK, TSKLFSYK,	2	7:34989478	DPY19L1		RATEVPSTAL, FLAGDGRATEV	2	2:1481231	TPO
LTSKLFSYK					MRGPPPLMPL	2	2:149895562	SF3B4
TRWLPQAALK	2	1:27088681--1:27088668	ARID1A		QRHWSSKINL, QRHWSSKI	2	6:158850873	TULP4
RTAAWQLCCR,	2	16:50745399	NOD2		RRVQRRTL, CRRVQRRTL	2	11:64597506	CDC42BPG
RTAAWQLCCR					MMLPVRARTAR,			
FVLNPCLPSIM	2	22:38895455	DDX17		RSALPQGRAPL, MMLPVRAR	2	18:34205516	FHOD3
SRASTGARTWL, RASGTARTWL	2	17:80049354	FASN					
AMMCASSTTSW,					KDVWNFKAW, FESLCSKKDVW	2	17:38711971	CCR7
AMMCASSTTSWR,	2	8:22054260-8:22054259	BMP1					
MMCASSTTSWR					FQMMEGKAFL, QMMEGKAFL	2	11:124845049	CCDC15
HRSHLKQHQRI	2	19:57840047	ZNF543		RWKPLQTVRL, RWKPLQTV	2	6:151673000	AKAP12

FTMARASVNEW, TARPLSLTLSF, FTMARASV ATQASMTL AEVLSDHIAFL, AEVLSDHIAF, DEAEVLSDHIFI, VLSDHIAFL, LSDHIAFL	2	1:155221333--1:155221578	FAM189B		HEHAQREVORL FPALACSLE, FPALACSLEEK, FPALACSLEE APTCGCPTRA RPPELQLLL GEWQPIQITM	2	1:17266536 2:36825137 8:120220776 17:70119909-17:70120194 2:68544315	CROCC FEZ2 MAL2 SOX9 CNRIP1
GPKSLRPV, SPSGPKSL, RPVWAPP RKLEAFFAF, FAFFSLLWPS HAWSLRLGL SSAARRSNFR, SSAARRSNFR, ASSAARRSNFR KLFSLEEF, NEPYKLF YQMILQQDF CRNLWLTSM SLHNRWTYV, LQSLHNRTW GETQNTFL, LEEPGETQNTF	2	19:39330959--19:39330958	HNRNPL		YNVDALRYFV, GLYNVDALR, LYNVDALRYF, YNVDALRYF AMTPPVLTAK, TTAKTSVK, LTAKTSVK, MTPPVLTAK, VLTAKTSVK ILLGGSTSSWA RRAHERPHPI, RAHERPHPI, RAHERPHPI, SRAHERPHPI KRIPQIRJ VEYVQLVT, AQVEYVQLV, VEYVQLVTEL CLHLPSPPV HQTSVLSF, FTTANTVPTAI	2	8:28385376 3:151163622 17:16330835 15:59376343 13:73347916 6:105198346 12:121432115--12:121432118 9:109689491	FZD3 IGSF10 TRPV2 RNF111 DIS3 HACE1 HNF1A ZNF462
FRTESSPAQAV, TESPPAQAVM, TESPPAQAV, TESPPAQAVML	2	10:102762593	LZTS2		LRHKRDKDYL, RVYDLRHKRDK	2	8:77617034	ZFHX4
VLGGKAAIPEV SEPLATPRHQY, LATPRHQYY HMDCLRWL SRNKSELL HPQWGSVG, HPQWGSVPRA RTLNGSQM SVDPFPQVKL, LLASVDPFPQV, SVDPFPQV YLGRTRLV, YLGRTRLVTCI, NWNSAYLGRTL HECSLWGSQL AQNILSYLNL RATPLSSL, SRRATPLSSL, RRATPLSSL VAMWISSVF, RVAMWISSV, VAMWISSV, RVAMWISSVF, AMWISSVFEA, AMWISSVF YASAVSSL ITYSHSPPR FLWTKDGNPF STASPCSLSSL, TASPCLSSLR LAAPGGRARL, RARLGGRQTM ASASTSTPSR, STSTPSRQLHR RLPELRQPQLR IIIFLRISAYM	2	1:62672556 X:47072566 12:133250289 2:12:58025103 20:62326110 19:18497024 14:30068249 10:890939 19:44150698 14:104026187 12:124848228 6:36452576 6:42957352 12:20522723 2:3:369855 2:8:22054260-8:22054259 20:21493012 16:50745399 2:4:3452439-2:43452244 2:6:51889974--6:51890015	LITD1 UBA1 POLE B4GALNT1 RTEL1 GDF15 PRKD1 LARP4B PLAUR BAG5 NCOR2 KCTD20 PPP2RSD PDE3A CHL1 BMP1 NKX2-2 NOD2 ZFP36L2 PKHD1		CPASCSCGYSW, SL1RRCPA, WTIPPTGSPF, CPASCSCGY YSAPVPPNAL, FYSAPVPPNAL RTSYLENK, TSYLENKLSCCK ISVTPPLPQPY, ISVTPPL SPADPTDL CRVSTWQGTLL, STWQGTLL YPPDNLRVM IACRVTPM FSLYLIHEI LCCRTRHPNM, CTRTRHPNMEL, CTRTRHPNM, RTRHPNMEL, TRHPNMEL SLYQYFENF FAFSSLWW, WPSHLDMSML, FSSLWPSHL, WPSHLDMSM GRLPALSLL, GRHAPGGRLL, GRLPALSL YTQSEMEFL, YTQSEMEF, YTQSEMEFL EEGGCASGTW, GEEGCCASGTW RSFOIJHER AATLRCPAV RRIQSRSFPFL, FPLYSGRLL	2	7:100855927 20:33328934 1:247588527 1:62253580 8:22428658 19:7592444--19:7592423 19:50462324 16:2059622 19:12059564 16:10729660 14:78045431 12:51392999 17:46629736 1:237947200 X:153042691 19:12574841--19:12574925 3:51417604 11:46702223--11:46702224	PLOD3 NCOA6 NLRP3 SORBS3 MCOLN1 ZNF598 ZNF700 TEKT5 SPTLC2 SLC11A2 HOXB3 Ryr2 PLXNB3 ZNF709 DOCK3 ARHGAP1

MQNHTAEKPY ATASAAPRPPR, ATASAAPR, RAATASAAPR SRWMTLSI KLWNLLNMPM	2	19:37441368 17:70119870--17:70119913 16:14346300 4:141461344	ZNF568 SOX9 MKL2 ELMOD2		LARPVSAA HPPHRHPPGCA, HPPGCADHPL, RPDHPPHRHPG KDNIFGTVI SLWIEAMVLK, WIEAMVLKK, SLWIEAMVLKK, NYSLWIEAM, YSLWIEAMVLK KLRQNQNY, LRQNQNYMNIL GEDIFWTCL, GEDIFWTCLKM REAAAAGV TPPPPLL FRATPLQGM, FRATPLQGML QACLTFRGSW DVTPTTSSLV LSFWQQLTF LMNLATADLL TRTLCFLPRTV, FQMHTRTLCL CLFPRPVAF, FQMHTRTLCLF KSYKMNNGREY MRWSSQNTSLL, RRMTRPNM SATVTAFWRSL ELRALREM TMLHQVMDQK QCNELKKTY TRTFIAARTFV, VTRTFIAAR, TRTFIAART SQTHLNTL MANRNHLKL, KMANRNHL RQTSFCTLT QEQQNVLKVL, QEQQNVLK REVITVYQLFV, REVITVYQL, REVITVYQLF FRLFIQNL, FIQNLFFQI, FRLFIQNLFF, FRLFIQNLFF RRTTFLRL, RLFQNLFFQI HTEMKKEER TDFGLVREW SATEEGNTQVL SPSVHNWKET, SPSVHNWKETA FHRIQNQL, NQLQLFRNFFL, FHRIQNQLQL SRLLSRTAM LTSPAVCL CPMTACSI, CPMTACSI	2	7:75677504 8:145625525 5:38510602 4:153881906 2:234078674 16:11141159 18:48723146 1:109792735 2:238289624 10:64564892 2:202514862 19:5231449 3:151046142 19:17000632 11:47304002 15:72143639 5:33576343 22:50297991 18:73000406 15:42371752 X:84526620 13:94482727 15:72143639 ADAMTS12 ALG12 TSH21 PLA2G4D ZNF711 ADAMTS12 ALG12 TSH21 CDH13 MYO9A ADAMTS12 ALG12 TSH21 CDH13 ST3GAL6 ADAMTS12 ALG12 TSH21 MUC4 ROS1 TCF7L2 DOPEY1 ZDHHC18	MDH2 CPSF1 LIFR FHDC1 INPP5D CLEC16A MEX3C CELSR2 COL6A3 ADO MRII P2RY13 F2RL3 MADD MPP4 PTPRS ASPDH SPERT TSH21 PLA2G4D ZNF711 ADAMTS12 ALG12 TSH21 CDH13 MYO9A ADAMTS12 ALG12 TSH21 CDH13 ST3GAL6 ADAMTS12 ALG12 TSH21 MUC4 ROS1 TCF7L2 DOPEY1 ZDHHC18
TAAHVTDVM, VEVEVTVTQAA, ITAHVTDVM LYIQNALNL CRRPWPPRL, RRPWPPRL, RRPWPPRLPTL HERGALPRRAL YVPGPTNETL LPSKPFANSSL IQCFLIMFY VLSPLMCV, WLVLISPL, WLVLISPLMCV, TALKIWLVL RPSRSGPPEA, AEAAEAPASPL ATWLSLAL RQLSSKSLW LRLELAKM TVDCKINCLL, TVDCKINCLL VPCSMQDPL RNNSAFLK, RNNSAFLK, IRNNSAFLK, IRNNSAFLK RRGPGGQLRL, RRGPGGQLRL, GRRGPGGQLRL, LMLPSSARPW, RRGPGGQL	2	X:135956571--X:13595675 12:122018773--12:122018740 12:132394804 17:70117710--17:70117715 16:77355780 22:28389367 7:33014804 6:30864547--6:30863251 16:88599701 10:124895627 14:75230947 1:39332608 3:151046142 3:168833257 18:56202169 9:17135271	RBMX KDM2B TOP2B ARID1A B3GNT6 YEATS2 RBMX KDM2B TOP2B ADAMTS18 TTC28 FKBP9 DDR1 ZFPM1 HMX3 YLPM1 MYCBP P2RY13 MECOM ALPK2 CNTLN			2	7:75677504 8:145625525 5:38510602 4:153881906 2:234078674 16:11141159 18:48723146 1:109792735 2:238289624 10:64564892 2:202514862 19:5231449 3:151046142 19:17000632 11:47304002 15:72143639 5:33576343 22:50297991 18:73000406 16:83251091 3:98506942 15:52244057 1:233482260 9:124855211 3:195518119 6:117622233 2:20130515--22:20130522	MDH2 CPSF1 LIFR FHDC1 INPP5D CLEC16A MEX3C CELSR2 COL6A3 ADO MRII P2RY13 F2RL3 MADD MPP4 PTPRS ASPDH SPERT TSH21 PLA2G4D ZNF711 ADAMTS12 ALG12 TSH21 CDH13 MYO9A ADAMTS12 ALG12 TSH21 CDH13 ST3GAL6 ADAMTS12 ALG12 TSH21 MUC4 ROS1 TCF7L2 DOPEY1 ZDHHC18

YFREAYFWL, TRNILDYF, LDYFREAYFWL	2	3:31666425	STT3B	MEANMSIPSM LEDSSGNLLV HQADNLLM, SRHQADNLLM, SRHQADNLL, SRHQADNL SEAPGAQYPP HICSRRFK SLKEKVNLQK LPQGRDL, LPQGRDLRA SEREREAL VYGGNVVMLV	2	14:105408302 17:7577141 22:40356095 19:12996740 18:74154167 5:13920716 8:145625525 17:70117715--17:70117710 17:65119099	AHNAK2 TP53 GRAP2 KLF1 ZNF516 DNAH5 CPSF1 SOX9 HELZ
FFYRHPSY ARCPRVGCL LEKAVQSFWY	2	1:205589099 16:28847356--16:28847350 6:107361391	ELK4 ATXN2L C6orf203				
FQNWKWITVYL, FQNWKWITV	2	7:103205756	RELN				
FFFGFWLV	2	19:56249721	NLRP9				
SPASACTMPPL, QPSPASACTM, MPPLLHPQW, SPASACTM	2	17:48433967	XYLT2				
SQLPASSPTK	2	18:34205516	FHOD3				
YQQWNITSPEV, QQWNITSPEV	2	7:4056840	SDK1	MLVMHNMFSHR, SYMLVMHNM, VMHNMFSH, MLVMHNMFSH, VMHNMFSHR, LVMHNMFSHR, SYMLVMHNMF	2	12:57992945	PIP4K2C
SPLDSSPL	2	3:77657038	ROBO2				
YWKRHIEL, NYWKRHIEL	2	7:73021716	MLXIPL				
GLGDGPAQPEI	2	19:55815035	BRSK1				
GEWGAFNDIMW	2	14:102463483	DYNC1H1				
HSNDGGNLYYY	2	1:65332611	JAK1				
SQNTRVPRLPK	2	6:32918419	HLA-DMA				
YSAAPGAPPL	2	10:102587324	PAX2				
TRKSPALSAL	2	3:52550119	STAB1				
HPQRKRRGGPP, PPSPLAL, GPPSPPLAL	2	17:56435161	RNF43				
LEKNVPLRVKL, FLEKNVPL	2	1:156931470	ARHGEF11				
KVWSRTAYL, SSAKVWSRTAY	2	12:64819643	XPOT				
YLDPPTCRAI, YLDPPTCRAIV, SYLDPPTCRAI	2	10:81072446	ZMIZ1				
REIQTAVHLLL, REIQTAVHLL, REIQTAVHLL	2	6:27783120	HIST1H2BM				
LLVSSPPSGV, WLLVSSPPSGV	2	1:85040070	CTBS				
YSTOYGLKL	2	2:159537101	PKP4				
GRPLRPPI	2	8:54792097	RGS20				
KRDQCFCQM	2	11:124845049	CCDC15				
MDFSLVFSPSF	2	4:113540617	C4orf21				
WPCLWNSLLRF, SLLRFCPA, WPCLWNSLL, WPCLWNSL	2	7:100855927	PLOD3				
WRVEQRKIL, WRVEQRKILL, WRVEQRKIL	2	5:14336771	TRIO				
YKNFLRCL, YKNFLRCLVI, LRSAAEYKNFL, AYKNFLRCLV, AYKNFLRCL, AYKNFLRCLVI	2	15:75694278	SIN3A				
FTRQSTGTIAY, QSTGTIAY LEYFMKQINDA, LEYFMKQI	2	4:187158051--4:187158019 3:178952074	KLKB1 PIK3CA	TRSCSISL STLNFAHLLM IQNYHLRGIGM ALHPLWWA, ALHPLWWATA DEDIVTILQA, DEDIVTILQAT, DEDIVTIL	2	1:155308000 10:94243045 1:85020800 1:206650063 20:1445016	ASHIL IDE CTBS IKBKE NSFL1C

**Table S5:** Accession numbers of the microarray profiles of colorectal cancer

<b>Dataset</b>	<b>Platform</b>	<b>#Sample</b>	<b>Publication (PMID)</b>
<u>TCGA</u>	RNAseqV2	538	<u>22810696</u>
<u>GSE12945</u>	HG-U133A	62	<u>19399471</u>
<u>GSE41258</u>	HG-U133A	187	<u>19359472</u>
<u>GSE14333</u>	HG-U133_Plus_2	290	<u>19996206</u>
<u>GSE17538</u>	HG-U133_Plus_2	240	<u>22115830</u>
<u>GSE29623</u>	HG-U133_Plus_2	130	<u>22362069</u>
<u>GSE33113</u>	HG-U133_Plus_2	90	<u>22496204</u>
<u>GSE39582</u>	HG-U133_Plus_2	566	<u>23700391</u>
<u>GSE24549</u>	HuEx-1_0-st	83	<u>21619627</u>
<u>GSE24550</u>	HuEx-1_0-st	77	<u>22991413</u>
<u>GSE30378</u>	HuEx-1_0-st	95	<u>22991413</u>
<u>GSE28722</u>	Rosetta custom human 23K array	125	<u>21251323</u>

**Table S6:** List of features used for the regression model.

Parameter	Description
HLA-A	Antigen presenting machinery
HLA-B	Antigen presenting machinery
HLA-C	Antigen presenting machinery
HLA-E	Antigen presenting machinery
HLA-G	Antigen presenting machinery
HLA-F	Antigen presenting machinery
Neo-antigen frequency	Antigen presenting machinery
B2M	Antigen presenting machinery
TAP1/2	Antigen presenting machinery
Heterogeneity	Tumor heterogeneity
Treg	Immunosuppressive TILs
MDSC	Immunosuppressive TILs
ATAD2	Cancer germline antigens
CASC5	Cancer germline antigens
CEP55	Cancer germline antigens
CASC5	Cancer germline antigens
CSAG1	Cancer germline antigens
CSAG2	Cancer germline antigens
CTAGE5	Cancer germline antigens
CTCFL	Cancer germline antigens
DCAF12	Cancer germline antigens
GPATCH2	Cancer germline antigens
KDM5B	Cancer germline antigens
KIAA0100	Cancer germline antigens
LEMD1	Cancer germline antigens
MAGEA12	Cancer germline antigens
MAGEA2	Cancer germline antigens
MAGEA3	Cancer germline antigens
MAGEA6	Cancer germline antigens
IGF2BP3	Cancer germline antigens
MPP1	Cancer germline antigens
NUF2	Cancer germline antigens
ODF2	Cancer germline antigens
OIP5	Cancer germline antigens
PBK	Cancer germline antigens
PIWIL1	Cancer germline antigens
POTEE	Cancer germline antigens
RQCD1	Cancer germline antigens
SPA17	Cancer germline antigens
SPAG1	Cancer germline antigens
SPAG4	Cancer germline antigens
SPAG9	Cancer germline antigens
TTK	Cancer germline antigens
ZNF165	Cancer germline antigens
SEMG1	Cancer germline antigens
IDO	co-inhibitor
PDL1	ligand

B7H2	ligand
CD28	co-stimulator
ICOS	co-stimulator
LAG3	co-inhibitor
BTLA	co-inhibitor
CD160	co-inhibitor
B7DC	ligand
HVEM	ligand
CD137L	ligand
OX40	co-stimulator
OX40L	ligand
CD70	co-stimulator
GITRL	ligand
GITR	co-stimulator
BAFF	ligand
BAFFR	co-stimulator
APRIL	ligand
CD40L	co-stimulator
CD40	ligand
TACI	co-stimulator
AIMP1	Cytokine
BMP10	Cytokine
BMP13	Cytokine
BMP2	Cytokine
BMP4	Cytokine
BMP5	Cytokine
BMP6	Cytokine
BMP7	Cytokine
CSF2	Cytokine
CSF3	Cytokine
CTF1	Cytokine
EDA2R	Cytokine
IFNA1	Cytokine
IFNA13	Cytokine
IFNA14	Cytokine
IFNA16	Cytokine
IFNA17	Cytokine
IFNA2	Cytokine
IFNA21	Cytokine
IFNA4	Cytokine
IFNA5	Cytokine
IFNA6	Cytokine
IFNA7	Cytokine
IFNA8	Cytokine
IFNAR1	Cytokine
IFNAR2	Cytokine
IFNG	Cytokine
IFNGR1	Cytokine
IFNGR2	Cytokine
IFNK	Cytokine

IL10	Cytokine
IL10RB	Cytokine
IL11	Cytokine
IL12B	Cytokine
IL12RB1	Cytokine
IL12RB2	Cytokine
IL13	Cytokine
IL15RA	Cytokine
IL16	Cytokine
IL17B	Cytokine
IL17RA	Cytokine
IL17RB	Cytokine
IL18	Cytokine
IL19	Cytokine
IL1A	Cytokine
IL1B	Cytokine
IL1R1	Cytokine
IL2	Cytokine
IL20	Cytokine
IL21	Cytokine
IL21R	Cytokine
IL22	Cytokine
IL23	Cytokine
IL23R	Cytokine
IL24	Cytokine
IL25	Cytokine
IL27	Cytokine
IL28RA	Cytokine
IL29	Cytokine
IL2RA	Cytokine
IL3	Cytokine
IL31RA	Cytokine
IL32	Cytokine
IL33	Cytokine
IL36RN	Cytokine
IL4	Cytokine
IL4R	Cytokine
IL5	Cytokine
IL6	Cytokine
IL7	Cytokine
IL8	Cytokine
IL9	Cytokine
PF4	Cytokine
TGFA	Cytokine
TGFB1	Cytokine
TGFB2	Cytokine
TGFB3	Cytokine
TGFBR1	Cytokine
TGFBR2	Cytokine
TGFBR3	Cytokine

TNF	Cytokine
TNFRSF10A	Cytokine
TNFRSF10B	Cytokine
TNFRSF10C	Cytokine
TNFRSF10D	Cytokine
TNFRSF11B	Cytokine
TNFRSF12A	Cytokine
TNFRSF13B	Cytokine
TNFRSF19	Cytokine
TNFRSF1B	Cytokine
TNFRSF21	Cytokine
TNFRSF25	Cytokine
TNFRSF3	Cytokine
TNFRSF4	Cytokine
TNFRSF6	Cytokine
TNFSF10	Cytokine
TNFSF11	Cytokine
TNFSF12	Cytokine
TSPL	Cytokine
CCL11	Chemokine
CCL15	Chemokine
CCL16	Chemokine
CCL17	Chemokine
CCL18	Chemokine
CCL2	Chemokine
CCL20	Chemokine
CCL22	Chemokine
CCL23	Chemokine
CCL25	Chemokine
CCL27	Chemokine
CCL28	Chemokine
CCL3	Chemokine
CCL4L2	Chemokine
CCL5	Chemokine
CCL7	Chemokine
CCL8	Chemokine
CCR1	Chemokine
CCR10	Chemokine
CCR3	Chemokine
CCR4	Chemokine
CCR6	Chemokine
CCR8	Chemokine
CCR9	Chemokine
CCRL1	Chemokine
CCRL2	Chemokine
CKLF	Chemokine
CX3CL1	Chemokine
CX3CR1	Chemokine
CXCL1	Chemokine
CXCL10	Chemokine

CXCL11	Chemokine
CXCL12	Chemokine
CXCL13	Chemokine
CXCL14	Chemokine
CXCL16	Chemokine
CXCL17	Chemokine
CXCL2	Chemokine
CXCL3	Chemokine
CXCL5	Chemokine
CXCL6	Chemokine
CXCL9	Chemokine
CXCR1	Chemokine
CXCR2	Chemokine
CXCR2P1	Chemokine
CXCR3	Chemokine
CXCR4	Chemokine
CXCR5	Chemokine
CXCR6	Chemokine
CXCR7	Chemokine
DARC	Chemokine
XCL1	Chemokine
XCL2	Chemokine
XCR1	Chemokine
<u>CXCL7</u>	Chemokine