

Hugo_Symbol	Tumor_Sample_Barcode	Chromosome	Start_Position	End_Position	Variant_Classification	Variant_Type	Reference_Allele	Tumor_Seq_Allele1	Tumor_Seq_Allele2	Protein_Change	i_Tumor/AF_WU	i_transcript_name
KRAS	O1	12	25380276	25380276	Missense_Mutation	SNP	T	C	C	KRAS-NM_033360:exon3:c.162A>G:p.G61R	21.82	NM_033360
C14orf37	O1	14	58471800	58471800	Missense_Mutation	SNP	C	T	T	C14orf37-NM_001081872:exon7:c.222G>A:p.R74I0	19.05	NM_001081872
DNAH3	O1	16	20996749	20996749	Missense_Mutation	SNP	C	T	T	DNAH3-NM_017533:exon4:c.7315G>A:p.G2438R	24.73	NM_017533
ABCC12	O1	16	48148472	48148472	Missense_Mutation	SNP	G	G	A	ABCC12-NM_033226:exon13:c.1843C>T:p.R615C	10.27	NM_033226
GJC1	O1	17	42882687	42882687	Missense_Mutation	SNP	G	G	A	GJC1-NM_005497:exon3:c.499C>T:p.R167W	13.78	NM_005497
TP53	O1	17	7578203	7578203	Missense_Mutation	SNP	C	C	T	TP53-NM_000546:exon8:c.646G>A:p.V219M	10.75	NM_000546
SMAD4	O1	18	48593466	48593466	Missense_Mutation	SNP	C	C	T	SMAD4-NM_000568:exon10:c.1217C>T:p.A406V	12.31	NM_000568
HAUS5	O1	19	36109580	36109580	Missense_Mutation	SNP	G	G	A	HAUS5-NM_015302:exon12:c.995C>A:p.R329I	18.03	NM_015302
NLRP5	O1	19	56565093	56565093	Missense_Mutation	SNP	C	C	T	NLRP5-NM_153447:exon13:c.3218C>T:p.T1073M	9.85	NM_153447
PCBP1	O1	2	70315174	70315174	Missense_Mutation	SNP	T	T	A	PCBP1-NM_008196:exon1:c.299T>A:p.L100Q	25	NM_008196
PRR23C	O1	3	138762733	138762733	Missense_Mutation	SNP	G	G	A	PRR23C-NM_001134657:exon1:c.730C>T:p.R244C	12.16	NM_001134657
APC	O1	5	112175273	112175273	Nonsense_Mutation	SNP	C	C	T	APC-NM_000038:exon16:c.3988C>T:p.Q128I	43.3	NM_000038
CFB	O1	6	31915244	31915244	Missense_Mutation	SNP	C	C	T	CFB-NM_001710:exon4:c.604C>T:p.R202W	47.42	NM_001710
CLASRP	O1	19	45567607	45567609	In_Frame_Del	DEL	CTC	CTC	-	CLASRP-NM_007056:exon13:c.1148_1151delCTC:p.S384del	12.5	NM_007056
ITIH2	O1	10	7773844	7773844	Missense_Mutation	SNP	C	C	T	ITIH2-NM_002216:exon13:c.1532C>T:p.T511M	12.68	NM_002216
MCAL2	O1	11	12281344	12281344	Missense_Mutation	SNP	G	G	T	MCAL2-NM_014623:exon26:c.3234G>T:p.E1070D	38.71	NM_014623
FAM118B	O1	11	126110795	126110795	Nonsense_Mutation	SNP	G	G	T	FAM118B-NM_024556:exon4:c.195G>A:p.W65*	22.47	NM_024556
PLEKHA7	O1	11	16848121	16848121	Nonsense_Mutation	SNP	C	C	A	PLEKHA7-NM_001526:exon10:c.888G>T:p.E297*	24.72	NM_001526
IGSF22	O1	11	16730652	16730652	Missense_Mutation	SNP	G	G	A	IGSF22-NM_173588:exon18:c.2980C>T:p.R994C	27.78	NM_173588
CCDC179	O1	11	22881002	22881002	Nonsense_Mutation	SNP	C	C	T	CCDC179-NM_001956:exon2:c.86G>A:p.R29Q	35	NM_001956
ANO3	O1	11	26547183	26547183	Frame_Shift_Ins	DEL	A	A	-	ANO3-NM_001313728:exon8:c.882delA:p.K294fs	36.96	NM_001313728
LRRCC4	O1	11	40137645	40137646	Frame_Shift_Ins	INS	-	-	T	LRRCC4-NM_020929:exon5:c.197dupA:p.N66fs	32.95	NM_020929
ANP32E	O1	1	150199042	150199042	Missense_Mutation	SNP	C	C	A	ANP32E-NM_030920:exon5:c.579G>T:p.E193D	17.78	NM_030920
MSA4B	O1	11	60482518	60482518	Missense_Mutation	SNP	G	G	A	MSA4B-NM_011457:exon6:c.559G>A:p.V187M	14.81	NM_011457
PACS1	O1	11	69001356	69001356	Missense_Mutation	SNP	G	G	T	PACS1-NM_018026:exon16:c.1939G>T:p.A647S	34.15	NM_018026
INPPL1	O1	11	71944155	71944155	Missense_Mutation	SNP	A	A	G	INPPL1-NM_001567:exon17:c.1988A>G:p.Y663C	24.05	NM_001567
KLRC4	O1	12	10560957	10560957	Missense_Mutation	SNP	T	T	C	KLRC4-NM_013431:exon3:c.311A>G:p.N104S	44	NM_013431
CCDC91	O1	12	28605426	28605426	Missense_Mutation	SNP	G	G	A	CCDC91-NM_016118:exon10:c.940G>A:p.V314M	53.13	NM_016118
RYR2	O1	1	237774113	237774113	Missense_Mutation	SNP	G	G	A	RYR2-NM_001035:exon36:c.4735G>A:p.V1579M	29.29	NM_001035
KRT1	O1	12	53069243	53069243	Missense_Mutation	SNP	T	T	C	KRT1-NM_006121:exon6:c.1668A>G:p.S557G	20.18	NM_006121
PTPRQ	O1	12	80838175	80838175	Missense_Mutation	SNP	C	C	T	PTPRQ-NM_014502:exon1:c.50C>T:p.T17I	28.81	NM_014502
ZMYM6	O1	1	35453270	35453273	Frame_Shift_Ins	DEL	AAGA	AAGA	-	ZMYM6-NM_007167:exon16:c.3410_3413delTTT:p.F1137fs	12.63	NM_007167
PCDH17	O1	13	58208888	58208888	Missense_Mutation	SNP	G	G	T	PCDH17-NM_001404:exon1:c.2286G>T:p.E740D	17.82	NM_001404
TMCO2	O1	1	40713748	40713749	Frame_Shift_Ins	INS	-	-	T	TMCO2-NM_001067:exon1:c.89dupT:p.L30fs	23.81	NM_001067
OR4N2	O1	14	20296298	20296298	Missense_Mutation	SNP	G	G	A	OR4N2-NM_001004:exon2:c.691G>A:p.E231K	41.18	NM_001004
C14orf39	O1	14	60933757	60933757	Missense_Mutation	SNP	G	G	A	C14orf39-NM_174978:exon18:c.1570C>T:p.L524F	45.28	NM_174978
C14orf39	O1	14	60932752	60932752	Missense_Mutation	SNP	G	G	A	C14orf39-NM_174978:exon11:c.917C>T:p.A306V	51.61	NM_174978
NEK9	O1	14	75563914	75563914	Missense_Mutation	SNP	C	C	T	NEK9-NM_00132923:exon17:c.2098G>A:p.E700K	38.21	NM_00132923
SNW1	O1	14	78189588	78189588	Missense_Mutation	SNP	G	G	T	SNW1-NM_001318:exon11:c.1086C>T:p.R360W	11.11	NM_001318
BEND5	O1	1	49224895	49224895	Missense_Mutation	SNP	C	C	T	BEND5-NM_024603:exon3:c.422G>A:p.R141D	10.68	NM_024603
ADAMTS1	O1	15	79058622	79058622	Missense_Mutation	SNP	G	G	A	ADAMTS1-NM_014272:exon19:c.631C>T:p.R211W	10.04	NM_014272
KIF7	O1	15	90173714	90173714	Missense_Mutation	SNP	G	G	A	KIF7-NM_198525:exon16:c.3122C>T:p.T1041M	41.27	NM_198525
CACNA1H	O1	16	1259312	1259312	Missense_Mutation	SNP	G	G	A	CACNA1H-NM_021098:exon17:c.644C>A:p.R1215H	45.87	NM_021098
PDLT	O1	16	20410333	20410333	Missense_Mutation	SNP	G	G	T	PDLT-NM_174924:exon2:c.90C>A:p.S30R	10.48	NM_174924
ARHGAP17	O1	16	24942383	24942383	Missense_Mutation	SNP	C	C	A	ARHGAP17-NM_001068:exon19:c.2237G>T:p.G746V	11.02	NM_001068
SRRM2	O1	16	2812492	2812492	Missense_Mutation	SNP	C	C	T	SRRM2-NM_016333:exon11:c.1963C>T:p.R655C	24.46	NM_016333
COG8	O1	16	69370591	69370591	Missense_Mutation	SNP	C	C	A	COG8-NM_032385:exon2:c.402G>T:p.E134D	40.85	NM_032385
KRTAP4-5	O1	17	39305769	39305769	Missense_Mutation	SNP	G	G	C	5.NM_033188:exon1:c.251C>G:p.T84S	31.58	NM_033188
PIEZO2	O1	18	10704526	10704526	Missense_Mutation	SNP	C	C	T	PIEZO2-NM_020668:exon38:c.5785G>A:p.V1929M	20.43	NM_020668
ZNF440	O1	19	11943022	11943022	Missense_Mutation	SNP	T	T	C	ZNF440-NM_152577:exon4:c.1031T>C:p.S347T	60	NM_152577
L12RB1	O1	19	18188352	18188352	Missense_Mutation	SNP	G	G	A	L12RB1-NM_005535:exon5:c.523C>T:p.R175W	52.73	NM_005535
ZNF682	O1	19	20116980	20116980	Missense_Mutation	SNP	T	T	C	ZNF682-NM_083190:exon1:c.1331A>G:p.K444R	40.82	NM_033190
ZNF235	O1	19	44792897	44792897	Missense_Mutation	SNP	T	T	C	ZNF235-NM_004234:exon5:c.691A>G:p.K231E	11.81	NM_004234
APOC2	O1	19	45452483	45452470	Frame_Shift_Ins	DEL	TTTTACT	TTTTACT	-	APOC2-NM_000483:exon4:c.263_270delTTTTACT:p.I88fs	15.65	NM_000483
SHANK1	O1	19	51219930	51219930	Missense_Mutation	SNP	G	G	A	SHANK1-NM_016148:exon1:c.247C>T:p.H83Y	18.74	NM_016148
RALGAP2	O1	20	20571844	20571844	Missense_Mutation	SNP	G	G	A	RALGAP2-NM_003043:exon17:c.2318C>T:p.P773L	16.98	NM_003043
ILIR2	O1	2	102842898	102842898	Missense_Mutation	SNP	G	G	A	ILIR2-NM_004633:exon8:c.1013G>A:p.R138H	28.65	NM_004633
PCNT	O1	21	47831841	47831841	Missense_Mutation	SNP	G	G	A	PCNT-NM_006031:exon28:c.5854G>A:p.A1952T	37.5	NM_006031
DNAH7	O1	2	196851900	196851900	Missense_Mutation	SNP	C	C	T	DNAH7-NM_018887:exon14:c.1644G>A:p.H548I	56	NM_018887
DNAH7	O1	2	196851911	196851911	Missense_Mutation	SNP	C	C	T	DNAH7-NM_018887:exon14:c.1633C>T:p.R545C	53.19	NM_018887
FAM117B	O1	2	203589694	203589694	Missense_Mutation	SNP	G	G	A	FAM117B-NM_173511:exon3:c.808C>T:p.R270C	28.13	NM_173511
ICA1L	O1	2	203684596	203684596	Missense_Mutation	SNP	C	C	T	ICA1L-NM_138468:exon6:c.386G>A:p.R129H	22.73	NM_138468
SPAG16	O1	2	214149289	214149289	Missense_Mutation	SNP	G	G	T	SPAG16-NM_024532:exon1:c.82G>T:p.G29I	41.18	NM_024532
DMC1	O1	22	38934351	38934351	Missense_Mutation	SNP	G	G	A	DMC1-NM_007068:exon11:c.724C>T:p.R242W	31.53	NM_007068
VPS54	O1	2	64199317	64199317	Missense_Mutation	SNP	G	G	A	VPS54-NM_016516:exon4:c.440C>T:p.L147I	53.85	NM_016516
GCFC2	O1	2	75923413	75923413	Missense_Mutation	SNP	T	T	C	GCFC2-NM_003023:exon5:c.748A>G:p.N249S	49.02	NM_003023
DPFA2	O1	3	109031443	109031443	Missense_Mutation	SNP	C	C	T	DPFA2-NM_138816:exon3:c.130G>A:p.L44I	20	NM_138816
PLA1A	O1	3	119338415	119338415	Missense_Mutation	SNP	G	G	T	PLA1A-NM_015900:exon8:c.928G>T:p.V310L	11.69	NM_015900
NPHP3	O1	3	132402305	132402305	Missense_Mutation	SNP	C	C	T	NPHP3-NM_015324:exon25:c.3634C>G:p.D1219R	36.9	NM_015324
C3orf33	O1	3	155520356	155520356	Missense_Mutation	SNP	C	C	T	C3orf33-NM_001388229:exon2:c.139G>A:p.A47T	48.65	NM_001388229
ZNF385D	O1	3	21465505	21465505	Missense_Mutation	SNP	G	G	T	ZNF385D-NM_024697:exon7:c.904C>A:p.P302T	18.37	NM_024697
ROBO1	O1	3	78710404	78710404	Missense_Mutation	SNP	T	T	A	ROBO1-NM_002941:exon16:c.2096A>T:p.Q699L	28.57	NM_002941
ANK2	O1	4	114276243	114276243	Missense_Mutation	SNP	G	G	A	ANK2-NM_001148:exon38:c.6469G>A:p.E157K	27.46	NM_001148
ADAM29	O1	4	175899075	175899075	Missense_Mutation	COMPLEX	CA	CA	TG	ADAM29-NM_014269:exon5:c.239_9_2400delCAinsTG:p.T800M	24.21	NM_014269
ADAM29	O1	4	175899088	175899088	Missense_Mutation	SNP	G	G	T	ADAM29-NM_014269:exon5:c.2412G>T:p.R804S	28.42	NM_014269
ADAM29	O1	4	175899091	175899091	Missense_Mutation	SNP	A	A	T	ADAM29-NM_014269:exon5:c.2416A>T:p.Q805H	24.47	NM_014269
ADAM29	O1	4	175899102	175899102	Missense_Mutation	SNP	T	T	C	ADAM29-NM_014269:exon5:c.2426T>C:p.E1219R		

HNRNP40	O1	5	137089172	137089180	In_Frame_Del	DEL	CGGCCGCC	CGGCCGCC	-	HNRNP40.NM_006805.exon1:c.57 6_584delGGGCCGCC.p.G193.R	24.24	NM_006805
SYNE1	O1	6	152644715	152644715	Misense_Mutation	SNP	C	C	T	SYNE1.NM_182961.exon5:c.188 15G>A.p.R527Q	12.82	NM_182961
KLF14	O1	7	130418281	130418281	Misense_Mutation	SNP	G	G	A	KLF14.NM_138693.exon1:c.580C> T.p.R194C	10.99	NM_138693
EPHB4	O1	7	142562154	142562154	Misense_Mutation	SNP	G	G	A	EPHB4.NM_004445.exon4:c.596G> >A.p.R190Q	15.15	NM_004445
ELFN1	O1	7	1784840	1784840	Misense_Mutation	SNP	G	G	A	ELFN1.NM_001128637.exon2:c.60 65G>A.p.R203H	31.47	NM_001128636
BAG4	O1	8	38066607	38066607	Misense_Mutation	SNP	G	G	A	BAG4.NM_004874.exon4:c.710G> A.p.R237Q	10.58	NM_004874
VCPIP1	O1	8	67547410	67547410	Misense_Mutation	SNP	G	G	C	VCPIP1.NM_020595.exon3:c.299S> C>G.p.P993A	10.67	NM_020594
OTUD6B	O1	8	92097062	92097062	Misense_Mutation	SNP	G	G	A	OTUD6B.NM_016023.exon7:c.938 G>A.p.R313Q	44.59	NM_016023
FAM78A	O1	9	134136367	134136367	Misense_Mutation	SNP	G	G	A	FAM78A.NM_033387.exon2:c.694 C>T.p.R220V	29.63	NM_033387
IFNA6	O1	9	21350544	21350544	Misense_Mutation	SNP	G	G	T	IFNA6.NM_021002.exon1:c.343C> A.p.G115K	11.61	NM_021002
C9orf64	O1	9	86559744	86559744	Misense_Mutation	SNP	T	T	C	C9orf64.NM_020307.exon3:c.758A> G>A.p.R239H	45.61	NM_023207
KRAS	O1	12	25398284	25398284	Misense_Mutation	SNP	C	C	G	KRAS.NM_033380.exon2:c.35G>C p.G12A	33.8	NM_033380
SLC2A14	O2	12	7982501	7982501	Misense_Mutation	SNP	C	C	T	SLC2A14.NM_001286237.exon4:c. 489G>A.p.R163H	26.19	NM_001286237
CLSPN	O2	1	36217056	36217056	Misense_Mutation	SNP	C	C	T	CLSPN.NM_022111.exon10:c.182 3G>A.p.R68Q	28.92	NM_022111
SCEL	O2	13	7813971	7813971	Misense_Mutation	SNP	G	G	A	SCEL.NM_144777.exon4:c.194G> A.p.R95Q	50.94	NM_144777
MYH8	O2	14	2387001	2387001	Misense_Mutation	SNP	G	G	A	MYH8.NM_002471.exon13:c.1327 C>T.p.R443C	5.65	NM_002471
KCNB1	O2	20	47991025	47991025	Misense_Mutation	SNP	C	C	T	KCNB1.NM_004975.exon2:c.1072 G>A.p.D358N	7.45	NM_004975
CHGB	O2	20	5903841	5903841	Misense_Mutation	SNP	G	G	A	CHGB.NM_001819.exon4:c.1051G> >A.p.V351I	25	NM_001819
CAVIN2	O2	2	192711323	192711323	Misense_Mutation	SNP	G	G	A	CAVIN2.NM_004667.exon1:c.329C> >T.p.T110M	12.12	NM_004667
PCBP1	O2	2	70315174	70315174	Misense_Mutation	SNP	T	T	A	PCBP1.NM_006196.exon1:c.299T> >A.p.L100Q	9.71	NM_006196
KLHL6	O2	3	183226065	183226065	Misense_Mutation	SNP	C	C	T	KLHL6.NM_130446.exon3:c.691G> >A.p.E231K	30.69	NM_130446
PPPSK2	O2	5	102494919	102494919	Misense_Mutation	SNP	G	G	A	PPPSK2.NM_001281471.exon17:c. 1807G>A.p.G603S	25.49	NM_001281471
APC	O2	5	112175216	112175216	Nonsense_Mutation	SNP	G	C	T	APC.NM_000028.exon16:c.3925G> >T.E1309*	90.59	NM_000028
ADAMTS16	O2	5	5262847	5262847	Nonsense_Mutation	SNP	C	C	T	ADAMTS16.NM_139056.exon18:c. 2740C>T.p.R914*	35.59	NM_139056
ABCA13	O2	7	48314760	48314760	Misense_Mutation	SNP	C	C	T	ABCA13.NM_152701.exon17:c.54 97C>T.p.R183W	36.36	NM_152701
PAPPA	O2	9	118950362	118950362	Misense_Mutation	SNP	G	G	A	PAPPA.NM_002581.exon2:c.1345 G>A.p.V449H	33.53	NM_002581
C9A	O2	9	35674204	35674204	Misense_Mutation	DEL	T	T	C	C9A.NM_001816.exon1:c.248T>C. p.L83P	12.68	NM_001816
GNR37L1	O2	1	200297525	200297525	In_Frame_Del	DEL	CTG	CTG	-	GNR37L1.NM_004767.exon2:c.13 85_1307delCTC.p.C436del	10	NM_004767
ORSK4	O2	3	98073592	98073592	Frame_Shift_Ins	DEL	A	A	-	ORSK4.NM_001005517.exon1:c.9 01delA.p.D01fs	49.28	NM_001005517
ANKRD30A	O2	10	37488689	37488689	Misense_Mutation	SNP	G	G	C	ANKRD30A.NM_005297.exon30:c. 2585G>C.p.R617H	54.55	NM_005297
KF20B	O2	10	91487649	91487649	Misense_Mutation	SNP	A	A	T	KF20B.NM_001284259.exon17:c. 2267A>T.p.N756I	41.67	NM_001284259
KF20B	O2	10	91488979	91488979	Misense_Mutation	SNP	A	A	T	KF20B.NM_001284259.exon18:c. 2268A>T.p.H756L	47.62	NM_001284259
PLCE1	O2	10	95995696	95995696	Misense_Mutation	SNP	G	G	T	PLCE1.NM_016341.exon7:c.2239 G>T.p.D747Y	33.33	NM_016341
CWF19L2	O2	11	10728943	10728943	Misense_Mutation	SNP	C	C	T	CWF19L2.NM_152434.exon10:c.1 695G>A.p.G517R	35.48	NM_152434
ANOS	O2	11	22239626	22239626	Misense_Mutation	SNP	G	G	A	ANOS.NM_213599.exon4:c.173G> A.p.R58Q	47.22	NM_213599
PSMD13	O2	11	251559	251559	Misense_Mutation	SNP	G	G	C	PSMD13.NM_175932.exon9:c.857 G>C.p.R266P	40	NM_175932
FLG	O2	1	152280736	152280736	Misense_Mutation	SNP	T	T	C	FLG.NM_002016.exon3:c.6626A> G.p.H2209R	25	NM_002016
OR4A16	O2	11	5511584	5511584	Misense_Mutation	SNP	A	A	T	OR4A16.NM_001605274.exon1:c. 908A>T.p.K203M	44.26	NM_001605274
UBQLN3	O2	11	5529465	5529465	Misense_Mutation	SNP	G	G	T	UBQLN3.NM_017481.exon2:c.132 4C>A.p.P442T	36.14	NM_017481
SPTA1	O2	1	158584091	158584091	Misense_Mutation	SNP	A	A	G	SPTA1.NM_001286237.exon2:c.6794 T>C.p.D265T	35.71	NM_001286237
PRG4	O2	1	186273994	186273994	Misense_Mutation	SNP	C	C	T	PRG4.NM_006807.exon6:c.538C> T.p.R180W	51.11	NM_006807
CFH	O2	1	196695937	196695937	Misense_Mutation	SNP	G	G	T	CFH.NM_000186.exon14:c.2103G> >T.p.W701C	12.35	NM_000186
TMCC2	O2	1	205241235	205241235	Misense_Mutation	SNP	G	G	A	TMCC2.NM_014858.exon5:c.2113 G>A.p.V705M	24.29	NM_014858
SRRM4	O2	12	119563214	119563214	Misense_Mutation	SNP	C	C	T	SRRM4.NM_194286.exon7:c.544C> >T.p.R162C	16.13	NM_194286
PK3CG2	O2	12	18435399	18435401	In_Frame_Del	DEL	CCC	CCC	-	PK3CG2.NM_001288772.exon2:c. 385_387delCCC.p.P129del	36.9	NM_001288772
PK3CG2	O2	12	18435452	18435452	Misense_Mutation	SNP	C	C	T	PK3CG2.NM_001288772.exon2:c. 437C>T.p.P146L	35.62	NM_001288772
SOXS	O2	12	23716305	23716305	Misense_Mutation	SNP	C	C	T	SOXS.NM_006940.exon11:c.1375 G>A.p.A499I	26.4	NM_006940
MRPS35	O2	12	27867727	27867727	Misense_Mutation	SNP	G	G	A	MRPS35.NM_001821.exon2:c.127 G>A.p.G43R	40.58	NM_001821
MBD6	O2	12	57918525	57918525	Misense_Mutation	SNP	T	T	C	MBD6.NM_052897.exon4:c.136T> C>G.p.S46P	36.92	NM_052897
CD163L1	O2	12	7548793	7548793	Misense_Mutation	SNP	C	C	T	CD163L1.NM_001297650.exon8:c. 1978G>A.p.V660I	36.8	NM_001297650
WNK1	O2	12	970483	970483	Misense_Mutation	SNP	A	A	G	WNK1.NM_213655.exon7:c.1925A> G>G.p.R420C	34.62	NM_213655
PROSER1	O2	13	39600487	39600489	In_Frame_Del	DEL	ATC	ATC	-	PROSER1.NM_025138.exon6:c.40 5_407delGAT.p.M135del	10.99	NM_025138
SETD8	O2	13	50057097	50057097	Misense_Mutation	SNP	G	G	A	SETD8.NM_031915.exon10:c.14 17G>A.p.V473M	59.32	NM_031915
KLF12	O2	13	74339129	74339129	Misense_Mutation	SNP	G	G	A	KLF12.NM_007249.exon6:c.815C> T.p.P272L	28.77	NM_007249
CLN5	O2	13	77566090	77566090	Misense_Mutation	SNP	C	C	T	CLN5.NM_006493.exon1:c.4C>T.p. R2C	42.86	NM_006493
OXGR1	O2	13	97639622	97639622	Misense_Mutation	SNP	C	C	T	OXGR1.NM_080818.exon4:c.392G> >A.p.R131H	52.78	NM_080818
PLD4	O2	14	10538401	10538401	Misense_Mutation	SNP	G	G	A	PLD4.NM_001308174.exon9:c.113 2G>A.p.V378M	46.15	NM_001308174
C14orf39	O2	14	6032724	6032724	Misense_Mutation	SNP	G	G	T	C14orf39.NM_174978.exon11:c.94 6C>A.p.D31E	46.15	NM_174978
PHGR1	O2	15	40648396	40648396	Misense_Mutation	COMPLEX	TGG	TGG	CCA	PHGR1.NM_001456433.exon3:c.1 41_143delTGTGGTCCA.p.G48H	21.05	NM_001456433
KNL1	O2	15	40920871	40920872	Frame_Shift_Ins	INS	-	-	G	KNL1.NM_170589.exon13:c.5658del upG.p.E1887fs	24.11	NM_170589
ADAMTSL3	O2	15	84611480	84611480	Nonsense_Mutation	SNP	C	C	T	ADAMTSL3.NM_207517.exon18:c. 2230C>T.p.R744*	38.89	NM_207517
SCNN1B	O2	16	23391982	23391982	Misense_Mutation	SNP	G	G	C	SCNN1B.NM_000336.exon13:c.17 83G>C.p.A596P	22.58	NM_000336
WLS	O2	1	68614286	68614286	Misense_Mutation	SNP	C	C	T	WLS.NM_001002292.exon7:c.102 4G>A.p.V342I	29.03	NM_001002292
MYO15A	O2	17	18024806	18024806	Misense_Mutation	SNP	G	G	A	MYO15A.NM_016239.exon2:c.269 2G>A.p.G898R	28.26	NM_016239
UTP8	O2	17	30222002	30222002	Misense_Mutation	SNP	T	T	C	UTP8.NM_018428.exon3:c.206A> G.p.Q69R	62.5	NM_018428
ARRB2	O2	17	4619845	4619845	Misense_Mutation	SNP	G	G	A	ARRB2.NM_001257328.exon5:c.2 99G>A.p.R102H	31.88	NM_001257328
AXIN2	O2	17	63554666	63554666	Misense_Mutation	SNP	G	G	A	AXIN2.NM_004655.exon2:c.73C>T p.P25S	64.29	NM_004655
ABCA6	O2	17	67125840	67125840	Misense_Mutation	SNP	C	C	T	ABCA6.NM_080284.exon7:c.844G> >A.p.V282I	22.92	NM_080284
CTC1	O2	17	8134748	8134748	Frame_Shift_Ins	DEL	A	A	-	CTC1.NM_020599.exon15:c.2515del TT.p.S83fs	21.05	NM_020599
COL24A1	O2	1	86512536	86512536	Misense_Mutation	SNP	C	C	T	COL24A1.NM_152890.exon12:c.1 922G>A.p.R641H	40.74	NM_152890
CBLN2	O2	18	70209101	70209101	Misense_Mutation	SNP	G	G	A	CBLN2.NM_152611.exon3:c.296C> >T.p.R99W	32.1	NM_152611
SALL3	O2	18	76754818	76754818	Misense_Mutation	SNP	G	G	A	SALL3.NM_171999.exon2:c.2827G> >A.p.A843T	12.77	NM_171999
ZNF728	O2	19	23159486	23159486	Misense_Mutation	SNP	T	T	C	ZNF728.NM_001267716.exon4:c.6 53A>G.p.Y218C	60	NM_001267716
TMEM147	O2	19	36038036	36038036	Misense_Mutation	SNP	G	G	A	TMEM147.NM_032635.exon6:c.44 55G>A.p.A148T	27.12	NM_032635
NLRP2	O2	19	55494753	55494753	Misense_Mutation	SNP	G	G	A	NLRP2.NM_017852.exon6:c.168T> G>A.p.E583K	31.71	NM_017852
ZSCAN5B	O2	19	56703269	56703269	Misense_Mutation	SNP	G	G	A	ZSCAN5B.NM_00180456.exon2:c. 538G>T.p.R16C	31.94	NM_00180456
RAD21L1	O2	20	1214814	1214814	Misense_Mutation	SNP	A	A	C	RAD21L1.NM_001136566.exon5:c. 454A>C.p.I		

ANKRD36	O2	2	97877292	97877292	Misense_Mutation	SNP	C	C	T	ANKRD36:NM_001164315:exon57 c.3977C>T:p.P1126L	57.14	NM_001164315
TMP4	O2	3	12198364	12198364	Misense_Mutation	SNP	C	C	T	TMP4:NM_00256:exon3:c.308G> A:p.G103D	39	NM_00256
ZBX	O2	3	167051769	167051769	Misense_Mutation	SNP	T	T	C	ZBX:NM_001199201:exon10:c.53 A>G:p.X178R	58.82	NM_001199201
ORSH15	O2	3	97888438	97888438	Misense_Mutation	SNP	G	G	C	ORSH15:NM_001005515:exon1:c. 895G>C:p.V299L	40.91	NM_001005515
ORSH6	O2	3	97983711	97983711	Misense_Mutation	SNP	T	T	C	ORSH6:NM_001005479:exon1:c.5 831T>C:p.C116R	58.33	NM_001005479
CCDC110	O2	4	186380243	186380243	Misense_Mutation	SNP	A	A	C	CCDC110:NM_152775:exon8:c.14 98T>G:p.Y50D	44.58	NM_152775
KLKB1	O2	4	187178473	187178473	Misense_Mutation	SNP	G	G	A	KLKB1:NM_000892:exon14:c.1679 C>G:p.R550Q	42.37	NM_000892
CNGA1	O2	4	47945286	47945286	Nonsense_Mutation	SNP	C	C	A	CNGA1:NM_001142564:exon7:c.1675 68G>T:p.E190*	11.76	NM_001142564
FRAS1	O2	4	79367890	79367890	Misense_Mutation	SNP	G	G	A	FRAS1:NM_025074:exon4:c.5866 C>G:p.I1958I	31.03	NM_025074
STPG2	O2	4	99027184	99027184	Misense_Mutation	SNP	T	T	C	STPG2:NM_174952:exon5:c.532A >G:p.I178V	36.67	NM_174952
SPINK5	O2	5	147499645	147499645	Misense_Mutation	SNP	G	G	A	SPINK5:NM_008486:exon25:c.238 T>C:p.R79Q	30.3	NM_008486
NIPBL	O2	5	37020625	37020625	Misense_Mutation	SNP	T	T	C	NIPBL:NM_133433:exon26:c.5075 T>C:p.M1692T	23.53	NM_133433
ADAMTS6	O2	5	64756126	64756126	Misense_Mutation	SNP	C	C	T	ADAMTS6:NM_197941:exon4:c.50 C>G:p.R168R	30.26	NM_197941
POCS	O2	5	7501582	7501582	Misense_Mutation	SNP	A	A	G	POCS:NM_001099271:exon4:c.25 4T>C:p.I85T	38.64	NM_001099271
TRDN	O2	6	123686766	123686766	Misense_Mutation	SNP	G	G	T	TRDN:NM_00607:exon19:c.1257 C>G:p.E119K	39.29	NM_006073
RSPH3	O2	6	153939348	153939348	Misense_Mutation	SNP	A	A	G	RSPH3:NM_031924:exon7:c.1316 T>C:p.M439T	54.84	NM_031924
MUC22	O2	6	30996839	30996839	Misense_Mutation	SNP	G	G	A	MUC22:NM_00122469:exon3:c.3 640G>A:p.E1214K	15.19	NM_00122469
MPG1	O2	6	76631823	76631823	Misense_Mutation	SNP	C	C	T	MPG1:NM_001563:exon17:c.2377 G>A:p.D793N	45.45	NM_001563
MCALL2	O2	7	14786111	14786111	Misense_Mutation	SNP	G	G	A	MCALL2:NM_102524:exon10:c.19 87C>T:p.R63C	18.6	NM_102524
PKD1L1	O2	7	47917119	47917119	Misense_Mutation	SNP	C	C	T	PKD1L1:NM_138295:exon22:c.383 T>G>A:p.I1211	24.22	NM_138295
ZNF735	O2	7	63880098	63880098	Misense_Mutation	COMPLEX	CC	CC	TA	ZNF735:NM_00159252:exon4:c.6 66_670delCCTcA>T:p.H224N	69.23	NM_00159254
GUSB	O2	7	65441045	65441045	Misense_Mutation	SNP	G	G	A	GUSB:NM_000181:exon5:c.869C> T:p.P290L	26.89	NM_000181
ABCB4	O2	7	87074281	87074282	Frame_Shift_Ins	INS	-	-	A	ABCB4:NM_018849:exon10:c.101 5dupT:p.S339fs	10.29	NM_018849
PUF60	O2	8	144899294	144899294	Misense_Mutation	SNP	G	G	C	PUF60:NM_078480:exon11:c.1166 C>G:p.P989R	42.86	NM_078480
FOCAD	O2	9	20819889	20819889	Misense_Mutation	SNP	G	G	T	FOCAD:NM_017794:exon14:c.155 GG>T:p.G517V	35.85	NM_017794
RORB	O2	9	77257699	77257699	Misense_Mutation	SNP	A	A	G	RORB:NM_006914:exon4:c.605A> G:p.Q202K	31.39	NM_006914
ZNF750	O2	X	134421241	134421241	Misense_Mutation	SNP	C	C	T	ZNF750:NM_007131:exon7:c.1581 G>A:p.C454Y	22.81	NM_007131
WSCD2	O3	12	108603974	108603974	Misense_Mutation	SNP	G	G	A	WSCD2:NM_014653:exon4:c.574 C>G:p.E119K	13.33	NM_014653
OBSCN	O3	1	22844454	22844454	Misense_Mutation	SNP	C	C	T	OBSCN:NM_001271223:exon16:c. 4688C>T:p.T1563M	49.02	NM_001271223
WDR59	O3	16	74955991	74955991	Misense_Mutation	SNP	T	T	C	WDR59:NM_005918:exon10:c.740 A>G:p.K247S	7.69	NM_005918
APC	O3	5	112173917	112173917	Nonsense_Mutation	SNP	C	C	T	APC:NM_000038:exon16:c.2626C >T:p.R876*	39.16	NM_000038
APC	O3	5	112175618	112175618	Frame_Shift_Ins	DEL	C	C	-	APC:NM_000038:exon16:c.4328de C>p.P1443fs	33.33	NM_000038
PITRM1	O3	10	3208567	3208568	Frame_Shift_Ins	INS	-	-	-	PITRM1:NM_001242307:exon4:c.2 71_272insCATTCTCTCTCTCTCC	27.27	NM_001242307
FAM208B	O3	10	5804509	5804509	Misense_Mutation	SNP	C	C	T	TAGCGTGC>p.D91fs FAM208B:NM_017782:exon20:c.7 189C>T:p.P239T	39.47	NM_017782
KF20B	O3	10	91488979	91488979	Misense_Mutation	SNP	A	A	T	KF20B:NM_001284259:exon18:c. 2266A>T:p.H78L	42.86	NM_001284259
CEP164	O3	11	117262952	117262952	Misense_Mutation	SNP	C	C	T	CEP164:NM_014956:exon18:c.229 4C>T:p.T765M	30.77	NM_014956
IGSF3	O3	1	117122288	117122288	Misense_Mutation	SNP	G	G	C	IGSF3:NM_001542:exon10:c.3120 C>G:p.D104E	22.73	NM_001542
LMNA	O3	1	156108328	156108328	Misense_Mutation	SNP	C	C	T	LMNA:NM_170707:exon11:c.1748 C>T:p.S83L	32.26	NM_170707
DGAT2	O3	11	75508371	75508371	Misense_Mutation	SNP	G	G	A	DGAT2:NM_002566:exon6:c.803G >A:p.R289H	35	NM_002566
IKBKE	O3	1	206669465	206669465	Misense_Mutation	SNP	C	C	T	IKBKE:NM_014002:exon2:c.2138 C>T:p.P713L	50	NM_014002
DPF3	O3	14	73137968	73137968	Misense_Mutation	SNP	G	G	A	DPF3:NM_001260544:exon9:c.111 GC>T:p.I378M	11.81	NM_001260544
C15orf39	O3	15	75499490	75499490	Misense_Mutation	SNP	C	C	G	C15orf39:NM_015492:exon2:c.110 1C>G:p.C387W	43.21	NM_015492
DNAH3	O3	16	20990740	20990740	Misense_Mutation	SNP	G	G	A	DNAH3:NM_017539:exon50:c.798 GC>T:p.T663M	38.98	NM_017539
CDHS	O3	16	66436606	66436606	Misense_Mutation	SNP	C	C	T	CDHS:NM_001795:exon12:c.1889 C>T:p.A630V	11.7	NM_001795
MYPH2	O3	17	10424632	10424632	Misense_Mutation	SNP	G	G	A	MYPH2:NM_017544:exon40:c.5791 G>T:p.R1931V	22.22	NM_017534
COX10	O3	17	14110412	14110412	Misense_Mutation	SNP	G	G	A	COX10:NM_001303:exon7:c.1214 G>A:p.R405H	26.58	NM_001303
UNC45B	O3	17	33495289	33495289	Misense_Mutation	SNP	G	G	A	UNC45B:NM_173167:exon9:c.136 T>G>A:p.R454H	43.14	NM_173167
COG1	O3	17	71197890	71197890	Misense_Mutation	SNP	C	C	A	COG1:NM_018714:exon7:c.1924C >A:p.P642T	31.67	NM_018714
ATP8B3	O3	19	1785539	1785539	Misense_Mutation	SNP	C	C	T	ATP8B3:NM_13813:exon36:c.332 2G>A:p.A1106T	24.18	NM_138813
SPTBN4	O3	19	41018705	41018705	Misense_Mutation	SNP	C	C	T	SPTBN4:NM_020971:exon14:c.20 69C>T:p.A670V	66.67	NM_020971
MADCAM1	O3	19	501701	501701	Misense_Mutation	SNP	G	G	A	MADCAM1:NM_130760:exon4:c.7 90G>A:p.D244N	44.74	NM_130760
MADCAM1	O3	19	501725	501725	Misense_Mutation	SNP	G	G	A	MADCAM1:NM_130760:exon4:c.7 24G>A:p.D242N	54.55	NM_130760
TSKS	O3	19	50249823	50249840	In_Frame_Del	DEL	CCTCCGGCTTC TGCTTCT	CCTCCGGCTTC CTTCT	-	TSKS:NM_001713:exon5:c.779-79 6delAGAGACGAGCCGGAGG>p. E260_E265del	15.63	NM_001713
SPTLC3	O3	20	13145453	13145453	Misense_Mutation	SNP	G	G	A	SPTLC3:NM_018327:exon12:c.159 8G>A:p.R533Q	22.37	NM_018327
NCOA6	O3	20	33338227	33338227	Misense_Mutation	SNP	T	T	C	NCOA6:NM_014071:exon9:c.1771 A>G:p.M591V	11.9	NM_014071
RTEL1	O3	20	62298844	62298844	Misense_Mutation	SNP	C	C	T	RTEL1:NM_001283099:exon6:c.63 G>C:p.R191W	13.04	NM_001283099
GLI2	O3	2	121726395	121726395	Misense_Mutation	SNP	G	G	A	GLI2:NM_005270:exon5:c.749G>A p.R250H	26.6	NM_005270
SAP130	O3	2	128773988	128773988	Misense_Mutation	SNP	G	G	A	SAP130:NM_00146928:exon4:c.5 60C>T:p.P181L	36.49	NM_00146928
URB1	O3	21	33694176	33694176	Misense_Mutation	SNP	G	G	A	URB1:NM_014825:exon34:c.5419 C>T:p.R1807W	42.25	NM_014825
P2RX8	O3	22	21377288	21377288	Nonsense_Mutation	SNP	G	G	A	P2RX8:NM_005446:exon5:c.521G >A:p.W174*	49.21	NM_005446
TMEM247	O3	2	46707851	46707851	Misense_Mutation	SNP	G	G	A	TMEM247:NM_001145051:exon2:c. 425G>A:p.R142Q	55.26	NM_001145051
CCDC80	O3	3	112358175	112358175	Misense_Mutation	SNP	G	G	A	CCDC80:NM_199511:exon2:c.578 C>T:p.A193V	43.82	NM_199511
WNT5A	O3	3	55504410	55504410	Misense_Mutation	SNP	C	C	T	WNT5A:NM_003382:exon5:c.853G >A:p.V289I	46.15	NM_003382
C4orf47	O3	4	186361716	186361716	Misense_Mutation	SNP	G	G	A	C4orf47:NM_00114357:exon5:c.5 57G>A:p.R186H	17.65	NM_00114357
VARS	O3	6	31762844	31762844	Misense_Mutation	SNP	G	G	T	VARS:NM_006295:exon2:c.151C> p.P51T	12	NM_006295
IRF4	O3	6	395933	395933	Misense_Mutation	SNP	C	C	A	IRF4:NM_002490:exon4:c.490C>A p.Q164K	30	NM_002460
RBMXL3	O3	X	114425196	114425196	Misense_Mutation	SNP	G	G	A	RBMXL3:NM_001145346:exon1:c. 1192G>A:p.D398N	44.33	NM_001145346
TENM1	O3	X	123518158	123518158	Misense_Mutation	SNP	C	C	T	TENM1:NM_001163278:exon30:c. 662G>A:p.R2208H	12.9	NM_001163278
EGR2	O4	10	64574154	64574154	Misense_Mutation	SNP	C	C	T	EGR2:NM_000399:exon2:c.244G> A:p.V62I	21.58	NM_000399
AMOTL1	O4	11	9458333	9458333	Misense_Mutation	SNP	G	G	A	AMOTL1:NM_136847:exon7:c.170 3G>A:p.R58Q	23.81	NM_130847
STAB2	O4	12	104105290	104105290	Misense_Mutation	SNP	G	G	A	STAB2:NM_017584:exon40:c.4330 C>A:p.A1444T	45.35	NM_017584
KRAS	O4	12	25398265	25398265	Misense_Mutation	SNP	C	C	A	KRAS:NM_003390:exon2:c.34G>T p.G12C	13.64	NM_003390
FBXW7	O4	14	153245447	153245447	Misense_Mutation	SNP	A	A	G	FBXW7:NM_003352:exon11:c.174 47C>G:p.S582P	19.35	NM_003352
APC	O4	5	112173917	112173917	Nonsense_Mutation	SNP	C	C	T	APC:NM_000038:exon16:c.2626C >T:p.R876*	38.3	NM_000038
APC	O4	5	112175639	112175639	Nonsense_Mutation	SNP	C	C	T	APC:NM_000038:exon16:c.4348C >T:p.R1450*	60	NM_000038
INA	O4	10	105037815	105037815	Misense_Mutation	SNP	G	G	A	INA:NM_032727:exon1:c.847G>A p.A283T	14.94	NM_032727
SFRP5	O4	10	99531229	99531229	Misense_Mutation							

IVL	O4	1	15283680	15283680	Misense_Mutation	SNP	A	A	T	IVL.NM_005547:exon2:c.1407A>T:p.C49H	56.6	NM_005547
OR51B2	O4	11	5345158	5345158	Misense_Mutation	SNP	T	T	C	OR51B2.NM_033180:exon1:c.370A>G:p.I124V	44.68	NM_033180
NES	O4	1	156642748	156642748	In_Frame_Del	DEL	GAG	GAG	-	NES.NM_006617:exon4:c.1232_1234delCTC:p.P411del	43.75	NM_006617
PTPRC	O4	1	198672442	198672442	Misense_Mutation	SNP	C	C	G	PTPRC.NM_002638:exon7:c.599C>G:p.A200G	18.31	NM_002638
ELF3	O4	1	201983002	201983003	Frame_Shift_Ins	INS	-	-	C	ELF3.NM_004433:exon8:c.853dupC>A:p.H555E	20.69	NM_004433
PITPNM2	O4	12	123485694	123485694	Misense_Mutation	SNP	C	C	G	PITPNM2.NM_020845:exon6:c.106GG>C:p.D354H	39.34	NM_020845
SMYD2	O4	1	214504326	214504326	Misense_Mutation	SNP	G	G	A	SMYD2.NM_020197:exon9:c.850G>A:p.D384N	38.95	NM_020197
CAPZA3	O4	12	18891215	18891215	Misense_Mutation	SNP	C	C	T	CAPZA3.NM_033328:exon1:c.13G>A:p.V5M	41.18	NM_033328
CACNA2D4	O4	12	1993428	1993428	Nonsense_Mutation	SNP	C	C	T	CACNA2D4.NM_117284:exon12:c.132C>A:p.W444	28.3	NM_117284
NPAS3	O4	14	3429079	3429079	Misense_Mutation	SNP	C	C	A	NPAS3.NM_001647:exon12:c.1566C>A:p.N52K	24.16	NM_00164749
ZYG11B	O4	1	53282301	53282301	Misense_Mutation	SNP	C	C	T	ZYG11B.NM_024648:exon13:c.204A>T:p.F682S	25.86	NM_024648
MEFV	O4	16	3306524	3306524	Misense_Mutation	SNP	C	C	T	MEFV.NM_000243:exon1:c.64G>A:p.E22K	24	NM_000243
SLC2A7	O4	1	9073810	9073810	Misense_Mutation	SNP	C	C	T	SLC2A7.NM_007420:exon8:c.988C>G:p.I330I	28.21	NM_007420
FCHO1	O4	19	17875219	17875219	Misense_Mutation	SNP	C	C	T	FCHO1.NM_001161:exon6:c.155C>T:p.A52V	34.62	NM_001161357
GMP	O4	19	19747825	19747825	Misense_Mutation	SNP	T	T	C	GMP.NM_016573:exon12:c.1138A>G:p.I380V	65	NM_016573
MADCAM1	O4	19	501719	501719	Misense_Mutation	SNP	T	T	C	MADCAM1.NM_130760:exon4:c.718T>C:p.S24P	65.79	NM_130760
ZNF446	O4	19	58991828	58991828	Misense_Mutation	SNP	C	C	T	ZNF446.NM_017908:exon7:c.1088C>T:p.P363L	43.93	NM_017908
TGM6	O4	20	2384368	2384368	Misense_Mutation	SNP	G	G	A	TGM6.NM_198994:exon9:c.1236G>A:p.R412H	54.35	NM_198994
FAM83D	O4	20	37555158	37555158	Misense_Mutation	SNP	A	A	G	FAM83D.NM_030919:exon1:c.73A>G:p.T5A	47.37	NM_030919
RIPOR3	O4	20	49219025	49219025	Misense_Mutation	SNP	G	G	A	RIPOR3.NM_001290:exon13:c.1243C>T:p.P415S	33.33	NM_001290268
NEB	O4	2	15250339	15250339	Misense_Mutation	SNP	C	C	A	NEB.NM_001271:exon45:c.5486G>T:p.I1829V	13.43	NM_001271208
GIGY2	O4	2	23366081	23366081	Misense_Mutation	SNP	A	A	G	GIGY2.NM_001031:exon16:c.1652A>G:p.H551R	46.07	NM_00103147
SYCE3	O4	22	50994763	50994763	Misense_Mutation	SNP	C	C	T	SYCE3.NM_001222:exon2:c.72C>A:p.D24E	25.23	NM_00122225
BIRC6	O4	2	32823018	32823018	Nonsense_Mutation	SNP	C	C	T	BIRC6.NM_016252:exon6:c.1381A>C>T:p.R460*	25.71	NM_016252
POLE4	O4	2	75185873	75185873	Misense_Mutation	SNP	G	G	A	POLE4.NM_019890:exon1:c.67G>A:p.A23T	28.57	NM_019896
CTNNA2	O4	2	80782889	80782889	Misense_Mutation	SNP	C	C	T	CTNNA2.NM_001282:exon12:c.1612C>T:p.R538W	24.49	NM_001282597
NLGN1	O4	3	17399554	17399554	Misense_Mutation	SNP	C	C	T	NLGN1.NM_014652:exon7:c.1933C>T:p.P645S	47.4	NM_014932
FBXW7	O4	4	15325998	15325998	Nonsense_Mutation	SNP	C	C	A	FBXW7.NM_003365:exon8:c.817G>T>E:p.E27*	25.5	NM_033632
TMPRSS11F	O4	4	68930524	68930524	Misense_Mutation	SNP	C	C	A	TMPRSS11F.NM_007407:exon8:c.894G>T:p.Q288H	12.5	NM_007407
CWC27	O4	5	64097145	64097145	Misense_Mutation	SNP	C	C	G	CWC27.NM_005865:exon9:c.766C>G:p.S55A	23.81	NM_005869
TAGAP	O4	6	159457709	159457709	Misense_Mutation	SNP	G	G	A	TAGAP.NM_054114:exon10:c.1346C>T:p.S449L	30.26	NM_054114
FLNC	O4	7	128490905	128490905	Misense_Mutation	SNP	A	A	T	FLNC.NM_001458:exon33:c.5447A>T:p.D1816V	19.4	NM_001458
ETV1	O4	7	13940436	13940436	Misense_Mutation	SNP	T	T	C	ETV1.NM_004956:exon13:c.1138A>G:p.N380S	44.78	NM_004956
KEL	O4	7	14265828	14265828	Misense_Mutation	SNP	C	C	T	KEL.NM_000420:exon3:c.142G>A:p.V48M	60.61	NM_000420
MIOS	O4	7	7613204	7613204	Misense_Mutation	SNP	A	A	C	MIOS.NM_019005:exon4:c.1098A>C:p.L366F	32.14	NM_019005
PLOL	O4	7	82784832	82784832	Misense_Mutation	SNP	C	C	G	PLOL.NM_030206:exon2:c.1125G>C>A:p.Q75H	47.27	NM_030206
ODF1	O4	8	103573006	103573006	Misense_Mutation	SNP	G	G	A	ODF1.NM_024410:exon2:c.647G>A:p.S218N	59.69	NM_024410
C3orf84	O4	9	114500617	114500617	Misense_Mutation	SNP	A	A	G	C3orf84.NM_173521:exon10:c.1168T>C>G:p.S39P	40.74	NM_173521
TUB	P1	11	8122144	8122144	Misense_Mutation	SNP	G	G	A	TUB.NM_003320:exon11:c.1376G>A:p.R459H	50	NM_003320
ABCC12	P1	16	48149472	48149472	Misense_Mutation	SNP	G	G	A	ABCC12.NM_033228:exon13:c.1843C>T:p.R615C	18.1	NM_033228
GJC1	P1	17	4282987	4282987	Misense_Mutation	SNP	G	G	A	GJC1.NM_005497:exon3:c.499C>T:p.R167W	31.82	NM_005497
TP53	P1	17	7578203	7578203	Misense_Mutation	SNP	C	C	T	TP53.NM_005546:exon6:c.646G>A:p.V216M	56.1	NM_000546
SMAD4	P1	18	48593466	48593466	Misense_Mutation	SNP	C	C	T	SMAD4.NM_005359:exon10:c.1217C>T:p.A406V	43.24	NM_005359
NRXN1	P1	2	50850603	50850603	Misense_Mutation	SNP	G	G	T	NRXN1.NM_001135:exon7:c.1082C>A:p.A361D	7.91	NM_001135659
PRR23C	P1	3	138762733	138762733	Misense_Mutation	SNP	G	G	A	PRR23C.NM_001134:exon1:c.730C>T:p.R244C	29.06	NM_001134657
APC	P1	5	112175273	112175273	Nonsense_Mutation	SNP	C	C	T	APC.NM_000308:exon16:c.3982C>T>T:p.Q132*	27.59	NM_000308
CFB	P1	6	31915244	31915244	Misense_Mutation	SNP	C	C	T	CFB.NM_001710:exon4:c.804C>T:p.R202W	39.68	NM_001710
XPC	P1	3	14219966	14219966	In_Frame_Del	DEL	CCT	CCT	-	XPC.NM_004628:exon1:c.101_103delAGG:p.E34del	14.29	NM_004628
PRDM8	P1	4	81123250	81123252	In_Frame_Del	DEL	GAG	CAG	-	PRDM8.NM_000228:exon10:c.649_651delAGC>G:p.G217del	11.25	NM_000226
PODXL	P1	7	13241030	13241035	In_Frame_Del	DEL	GGGCAG	GGCGAC	-	PODXL.NM_001011:exon11:c.84_88delGTGCC>C:p.S29_P30del	50	NM_001011811
ITIH2	P1	10	7773844	7773844	Misense_Mutation	SNP	C	C	T	ITIH2.NM_002216:exon13:c.1532C>T>T:p.T511M	26.79	NM_002216
SLC6A5	P1	11	20622978	20622978	Misense_Mutation	SNP	G	G	A	SLC6A5.NM_004211:exon2:c.307G>A:p.A103T	15.38	NM_004211
FLG	P1	1	152282560	152282560	Misense_Mutation	SNP	T	T	C	FLG.NM_002016:exon3:c.4802A>C:p.E1610G	19.51	NM_002016
MS4A8	P1	11	60482518	60482518	Misense_Mutation	SNP	G	G	A	MS4A8.NM_031457:exon6:c.559G>A:p.V187M	25.71	NM_031457
SLC9C2	P1	1	173493208	173493208	Frame_Shift_Ins	DEL	A	A	A	SLC9C2.NM_178527:exon21:c.254delT:p.L847E	30.36	NM_178527
OR2A74	P1	11	74800712	74800712	Misense_Mutation	SNP	A	A	T	OR2A74.NM_001005:exon1:c.47T>A:p.F16Y	11.11	NM_001005285
KLRCA4	P1	12	10560957	10560957	Misense_Mutation	SNP	T	T	C	KLRCA4.NM_013431:exon3:c.311A>G:p.N104S	46.15	NM_013431
SLOC1B3	P1	12	21028266	21028267	Frame_Shift_Ins	INS	-	-	T	SLOC1B3.NM_019844:exon9:c.83_84dupT:p.P280fs	27.81	NM_019844
CCDC31	P1	12	28605426	28605426	Misense_Mutation	SNP	G	G	A	CCDC31.NM_018138:exon10:c.94GG>A:p.I91M	49.06	NM_018138
RYR2	P1	1	237947838	237947838	Misense_Mutation	SNP	G	G	A	RYR2.NM_001035:exon9:c.12826G>A:p.V427M	34.44	NM_001035
KCNAS	P1	12	5154893	5154893	Misense_Mutation	SNP	C	C	T	KCNAS.NM_002234:exon1:c.1580C>T:p.T527M	10.99	NM_002234
KRT2	P1	12	53045603	53045604	In_Frame_Ins	INS	-	-	-	KRT2.NM_000423:exon1:c.323_324insTGGAGGGAGGGCGGCTT:p.F108_S109insGGGGGTTCCA	10.26	NM_000423
KRT1	P1	12	53069243	53069243	Misense_Mutation	SNP	T	T	C	KRT1.NM_005121:exon9:c.1669A>G:p.S557G	22.33	NM_006121
PTPRQ	P1	12	80838175	80838175	Misense_Mutation	SNP	C	C	T	PTPRQ.NM_001450:exon1:c.5CC>T:p.T17I	39.02	NM_00145026
ZMYM6	P1	1	35453270	35453273	Frame_Shift_Ins	DEL	AAGA	AAGA	-	ZMYM6.NM_007167:exon16:c.341_0_341_3delTCTT:p.F1137fs	32.26	NM_007167
OR4N2	P1	14	20296298	20296298	Misense_Mutation	SNP	G	G	A	OR4N2.NM_001004:exon2:c.69G>A:p.E23K	36.24	NM_001004723
C14orf39	P1	14	60903757	60903757	Misense_Mutation	SNP	G	G	A	C14orf39.NM_174978:exon18:c.1570C>T:p.L524F	47.54	NM_174978
C14orf39	P1	14	60932752	60932752	Misense_Mutation	SNP	G	G	A	C14orf39.NM_174978:exon11:c.917C>T:p.A395V	65.63	NM_174978
SNW1	P1	14	78189588	78189588	Misense_Mutation	SNP	G	G	A	SNW1.NM_001318:exon11:c.1066C>T:p.R356W	45	NM_00131844
BEND5	P1	1	49224895	49224895	Misense_Mutation	SNP	C	C	T	BEND5.NM_004603:exon3:c.422G>A:p.R141C	28.18	NM_024603
ADAMTS7	P1	15	79058622	79058622	Misense_Mutation	SNP	G	G	A	ADAMTS7.NM_014272:exon19:c.3631C>T:p.R121W	42.05	NM_014272
CACNA1H	P1	16	1259312	1259312	Misense_Mutation	SNP	G	G	A	CACNA1H.NM_021098:exon17:c.3644G>A:p.R1215H	47.78	NM_021098
PDLT	P1	16	20410533	20410533	Misense_Mutation	SNP	G	G	T	PDLT.NM_174924:exon2:c.90C>A:p.S30R	13.54	NM_174924
ARHGAP17	P1	16	24942383	24942383	Misense_Mutation	SNP	C	C	A	ARHGAP17.NM_001008:exon1:c.2237G>T:p.G746V	22.93	NM_001006634
COG8	P1	16	69370591	69370591	Misense_Mutation	SNP	C	C	A	COG8.NM_003282:exon2:c.402G>T:p.E134D	56.45	NM_003282
GPR157	P1	1	9164626	9164626	Misense_Mutation	SNP	C	C	T	GPR157.NM_024980:exon4:c.860C>A:p.R287Q	17.07	NM_024980
IL12RB1	P1	18	18188352	18188352	Misense_Mutation	SNP	G	G	A	IL12RB1.NM_005535:exon5:c.523C>T:p.R175W	35.48	NM_005535
CSNK1G2	P1	19	1978973	1978973	Misense_Mutation	SNP	A	A	T	CSNK1G2.NM_001319:exon6:c.563A>T:p.D188V	16.57	NM_001319
Z												

DENN1C	P1	19	6477251	6477251	Frame_Shift_Ins	DEL	G	G	-	DENN1C.NM_024898.exon8:c.49-196C>P.164As	11.67	NM_024898
RALGAP2	P1	20	20571844	20571844	Misense_Mutation	SNP	G	G	A	RALGAP2.NM_020343.exon17:c.2318C>T.P.773L	25.88	NM_020343
MCM3AP	P1	21	47695153	47695153	Misense_Mutation	SNP	G	G	A	MCM3AP.NM_003906.exon6:c.194-5C>T.P.R49W	42.05	NM_003906
DNAH7	P1	2	196851900	196851900	Misense_Mutation	SNP	C	C	T	DNAH7.NM_018887.exon14:c.164-4G>A.p.M548I	40.3	NM_018887
DNAH7	P1	2	196851911	196851911	Misense_Mutation	SNP	G	G	A	DNAH7.NM_018887.exon14:c.163-5C>T.P.R545C	41.94	NM_018887
SPAG16	P1	2	214149289	214149289	Misense_Mutation	SNP	G	G	T	SPAG16.NM_024532.exon1:c.82G>T.p.D28Y	45.98	NM_024532
SRRD	P1	22	26879942	26879962	In_Frame_Del	DEL	GGAGGGAGGG GGCCCGCCGG G	GGAGGGAGGG GGCCCGCCGG G	-	SRRD.NM_001013694.exon1:c.90-110delGGAGGGGGGGGGGGGGGGGGAGG.p.E31_R37del	31.71	NM_001013694
VPS54	P1	2	64199317	64199317	Misense_Mutation	SNP	G	G	A	VPS54.NM_016516.exon4:c.440C>T.p.T147I	33.33	NM_016516
GCFC2	P1	2	75923413	75923413	Misense_Mutation	SNP	T	T	C	GCFC2.NM_003033.exon5:c.746A>G.p.N248S	51.61	NM_003033
GUCA1C	P1	3	108635036	108635036	Misense_Mutation	SNP	T	T	C	GUCA1C.NM_005459.exon3:c.380-1A>G.p.Q127R	19.54	NM_005459
PLA1A	P1	3	119338415	119338415	Misense_Mutation	SNP	G	G	T	PLA1A.NM_015900.exon8:c.928G>T.p.V310L	16.44	NM_015900
NPHP3	P1	3	132402305	132402305	Misense_Mutation	SNP	C	C	G	NPHP3.NM_153240.exon25:c.383-4G>C.p.G1212R	30.77	NM_153240
C3orf33	P1	3	155520356	155520356	Misense_Mutation	SNP	C	C	T	C3orf33.NM_0198223.exon2:c.139G>A.p.A47T	44.74	NM_0198223
SKL	P1	3	170110135	170110135	Misense_Mutation	SNP	A	A	G	SKL.NM_005414.exon7:c.1985A>G.p.Q862R	30.77	NM_005414
ZNF385D	P1	3	21465505	21465505	Misense_Mutation	SNP	G	G	T	ZNF385D.NM_024897.exon7:c.904-1C>A.p.P302T	34.26	NM_024897
DOCK3	P1	3	51411972	51411972	Misense_Mutation	SNP	G	G	A	DOCK3.NM_004947.exon50:c.536-6G>A.p.R178H	28.13	NM_004947
CSN1P1	P1	4	7087771	7087771	Misense_Mutation	SNP	C	C	A	CSN1P1.NM_018590.exon13:c.35-10C>T.p.A117V	39.74	NM_018590
APC	P1	5	112174885	112174886	Frame_Shift_Ins	DEL	AA	AA	-	APC.NM_000038.exon16:c.3596_3-58delA.p.K1199E	25.52	NM_000038
SYNE1	P1	6	152844715	152844715	Misense_Mutation	SNP	C	C	T	SYNE1.NM_182961.exon82:c.158-15G>A.p.R5272Q	33.33	NM_182961
HSPA1L	P1	6	31778156	31778156	Misense_Mutation	SNP	C	C	T	HSPA1L.NM_005527.exon2:c.169-4G>A.p.E532K	11.56	NM_005527
KLF14	P1	7	130418281	130418281	Misense_Mutation	SNP	G	G	A	KLF14.NM_138693.exon1:c.580C>T.p.R194C	20.19	NM_138693
BAG4	P1	8	38066607	38066607	Misense_Mutation	SNP	G	G	A	BAG4.NM_004874.exon4:c.710G>A.p.R237Q	33.33	NM_004874
VCPIP1	P1	8	67547410	67547410	Misense_Mutation	SNP	G	G	C	VCPIP1.NM_025054.exon3:c.2995-1C>G.p.P999A	25.85	NM_025054
OTUD8B	P1	8	92097062	92097062	Misense_Mutation	SNP	G	G	A	OTUD8B.NM_016023.exon7:c.938-1A>G.p.R130Q	47.87	NM_016023
IFNA6	P1	9	21350544	21350544	Misense_Mutation	SNP	G	G	T	IFNA6.NM_021002.exon1:c.343C>A.p.Q115K	30.77	NM_021002
C9orf64	P1	9	86559744	86559744	Misense_Mutation	SNP	T	T	C	C9orf64.NM_002300.exon3:c.758A>G.p.K239R	31.46	NM_002300
KRAS	P2	12	25398284	25398284	Misense_Mutation	SNP	C	C	G	KRAS.NM_033360.exon2:c.35G>C.p.G12A	8.82	NM_033360
SLC2A14	P2	12	7982501	7982501	Misense_Mutation	SNP	C	C	T	SLC2A14.NM_001086237.exon4:c.488G>A.p.R163H	16.07	NM_001086237
CLSPN	P2	1	36217056	36217056	Misense_Mutation	SNP	C	C	T	CLSPN.NM_022111.exon10:c.182-1G>G.p.R680Q	19.54	NM_022111
SCEL	P2	13	78133971	78133971	Misense_Mutation	SNP	G	G	A	SCEL.NM_144777.exon4:c.194G>A.p.R65Q	16.67	NM_144777
CHGB	P2	20	5903841	5903841	Misense_Mutation	SNP	G	G	A	CHGB.NM_001819.exon4:c.1051G>A.p.V351I	15.79	NM_001819
KLHL6	P2	3	183226065	183226065	Misense_Mutation	SNP	G	C	T	KLHL6.NM_130446.exon3:c.691G>A.p.E231K	13.82	NM_130446
APC	P2	5	112175216	112175216	Nonsense_Mutation	SNP	G	C	T	APC.NM_000038.exon16:c.3925G>T.p.E1309*	74.81	NM_000038
ADAMTS16	P2	5	5262847	5262847	Nonsense_Mutation	SNP	C	C	T	ADAMTS16.NM_139056.exon18:c.2740C>T.P.R914*	31.17	NM_139056
ABCA13	P2	7	48314760	48314760	Misense_Mutation	SNP	C	C	T	ABCA13.NM_152701.exon17:c.54-9T>C.p.R183W	32.8	NM_152701
COL15A1	P2	9	101802807	101802807	Misense_Mutation	SNP	C	C	T	COL15A1.NM_018555.exon23:c.2480C>T.P.R827L	9.59	NM_018555
PAPPA	P2	9	118950362	118950362	Misense_Mutation	SNP	G	G	A	PAPPA.NM_002581.exon2:c.1345-1C>A.p.V448H	12.9	NM_002581
GPR50	P2	X	150349071	150349071	Misense_Mutation	SNP	G	G	A	GPR50.NM_004224.exon2:c.1016-1G>A.p.R339H	10.69	NM_004224
FOXJ2	P2	12	8200568	8200560	In_Frame_Del	DEL	CAG	CAG	-	FOXJ2.NM_018416.exon7:c.917_9-19delAGC.p.C2056del	16.07	NM_018416
CHAT	P2	10	50863221	50863221	Misense_Mutation	SNP	C	C	T	CHAT.NM_020548.exon12:c.1715-1C>T.p.S572L	22.22	NM_020548
PLCE1	P2	10	95995696	95995696	Misense_Mutation	SNP	G	G	T	PLCE1.NM_018341.exon7:c.2239-1G>T.p.D147Y	11.49	NM_016341
ANOS	P2	11	22239826	22239826	Misense_Mutation	SNP	G	G	A	ANOS.NM_021359.exon4:c.173G>A.p.R58Q	35.42	NM_021359
PSMD13	P2	11	251569	251569	Misense_Mutation	SNP	G	G	C	PSMD13.NM_175932.exon8:c.857-1C>G.p.R269P	10.47	NM_175932
OR4A16	P2	11	5511584	5511584	Misense_Mutation	SNP	A	A	T	OR4A16.NM_001005274.exon1:c.908A>T.p.K303M	55.88	NM_001005274
UBQLN3	P2	11	5529465	5529465	Misense_Mutation	SNP	G	G	T	UBQLN3.NM_017481.exon2:c.132-1G>A.p.P422T	15.25	NM_017481
SPTA1	P2	1	158584091	158584091	Misense_Mutation	SNP	A	A	G	SPTA1.NM_003126.exon49:c.6794-1T>C.p.L285T	36.84	NM_003126
PRG4	P2	1	186273994	186273994	Misense_Mutation	SNP	C	C	A	PRG4.NM_005807.exon6:c.538C>T.p.R191W	57.14	NM_005807
TMCC2	P2	1	205241235	205241235	Misense_Mutation	SNP	G	G	A	TMCC2.NM_014858.exon5:c.2113-1G>A.p.V705M	12.61	NM_014858
PK3C2G	P2	12	18435399	18435401	In_Frame_Del	DEL	CCC	CCC	-	PK3C2G.NM_00128772.exon2:c.385_387delCCC.p.P129del	35.94	NM_00128772
PK3C2G	P2	12	18435452	18435452	Misense_Mutation	SNP	C	C	T	PK3C2G.NM_00128772.exon2:c.437C>T.p.P146L	38.6	NM_00128772
MRPS35	P2	12	27867727	27867727	Misense_Mutation	SNP	G	G	A	MRPS35.NM_021621.exon2:c.127-1G>A.p.G43R	36.07	NM_021621
MBD6	P2	12	57918525	57918525	Misense_Mutation	SNP	T	T	C	MBD6.NM_052897.exon4:c.136T>C.p.S46P	29.31	NM_052897
PTPN6	P2	12	7064899	7064899	Misense_Mutation	SNP	G	G	T	PTPN6.NM_005458.exon7:c.824G>T.p.R275L	22.92	NM_005458
WNK1	P2	12	970483	970483	Misense_Mutation	SNP	A	A	G	WNK1.NM_021365.exon7:c.1925A>G.p.Y642C	12.07	NM_021365
CCDC168	P2	13	103397057	103397057	Nonsense_Mutation	SNP	G	G	T	CCDC168.NM_001148197.exon4:c.5990C>A.p.S199Y*	12.23	NM_001148197
SETDB2	P2	13	50057097	50057097	Misense_Mutation	SNP	G	G	A	SETDB2.NM_031915.exon10:c.14-1T>G.p.V473M	56.82	NM_031915
TP73	P2	1	3647535	3647535	Misense_Mutation	SNP	G	G	A	TP73.NM_005427.exon12:c.1390C>A.p.G445S	16.79	NM_005427
OXGR1	P2	13	97638622	97638622	Misense_Mutation	SNP	C	C	C	OXGR1.NM_006081.exon4:c.392G>A.p.R101H	29.55	NM_006081
PLD4	P2	14	105398401	105398401	Misense_Mutation	SNP	G	G	A	PLD4.NM_001308174.exon9:c.113-2G>A.p.V378M	15.79	NM_001308174
CHGA	P2	14	93399045	93399045	Misense_Mutation	SNP	C	C	G	CHGA.NM_001276.exon7:c.1139C>G.p.A308Q	23.87	NM_001276
SCNN1B	P2	16	23391982	23391982	Misense_Mutation	SNP	G	G	C	SCNN1B.NM_000336.exon13:c.17-83G>C.p.A566P	10.13	NM_000336
MYO15A	P2	17	18024806	18024806	Misense_Mutation	SNP	G	G	A	MYO15A.NM_016239.exon2:c.269-1C>G.p.G989R	13.51	NM_016239
UTP6	P2	17	30222002	30222002	Misense_Mutation	SNP	T	T	C	UTP6.NM_018428.exon3:c.206A>G.p.Q69R	65	NM_018428
ARRB2	P2	17	4619845	4619845	Misense_Mutation	SNP	G	G	A	ARRB2.NM_001257328.exon5:c.2-9G>A.p.R1109H	12.23	NM_001257328
AXIN2	P2	17	63554666	63554666	Misense_Mutation	SNP	G	G	A	AXIN2.NM_004955.exon2:c.73C>T.p.P25S	28.43	NM_004955
ZNF521	P2	18	22860051	22860051	Misense_Mutation	SNP	C	C	A	ZNF521.NM_015461.exon4:c.1831-1G>T.p.A811S	20.31	NM_015461
CBLN2	P2	18	70209101	70209101	Misense_Mutation	SNP	G	G	A	CBLN2.NM_182511.exon3:c.296C>T.p.R399W	14.42	NM_182511
OR11H	P2	19	15198488	15198488	Misense_Mutation	SNP	T	T	G	OR11H.NM_001004713.exon1:c.61-4T>C.p.Q24H	13.33	NM_001004713
SCAF1	P2	19	50155362	50155367	In_Frame_Del	DEL	CCGCTC	CCGCTC	-	SCAF1.NM_021228.exon7:c.1741-1748delCGCTC.p.R581_S582del	41.18	NM_021228
NLRP2	P2	19	55494753	55494753	Misense_Mutation	SNP	G	G	A	NLRP2.NM_017852.exon6:c.1687-1G>A.p.E563K	12.5	NM_017852
ZSCAN5B	P2	19	56703269	56703269	Misense_Mutation	SNP	G	G	A	ZSCAN5B.NM_001080456.exon2:c.538C>T.p.R180C	25.51	NM_001080456
PEG3	P2	19	57326319	57326319	Misense_Mutation	SNP	T	T	C	PEG3.NM_006210.exon10:c.3491-1A>G.p.E1164G	16.67	NM_006210
ROCK2	P2	2	11359120	11359120	Misense_Mutation	SNP	G	G	T	ROCK2.NM_004850.exon10:c.129-2C>A.p.T431N	50	NM_004850
RBM11	P2	21	15596772	15596772	Misense_Mutation	SNP	T	T	G	RBM11.NM_00132602.exon4:c.3-46T>G.p.L116V	47.37	NM_00132602
NMI	P2	2	152139416	152139416	Misense_Mutation	SNP	G	G	A	NMI.NM_004688.exon2:c.47C>T.p.S16L	33.33	NM_004688
GRB14	P2	2	165365287	165365288	Frame_Shift_Ins	INS	-	-	T	GRB14.NM_004450.exon7:c.891d-1up.p.H298fs	11.94	NM_004490
TMP4	P2	3	12198364	12198364	Misense_Mutation	SNP	C	C	T	TMP4.NM_003256.exon3:c.308G>A.p.G103D	25.93	NM_003256
ATR	P2	3	142274739	142274740	Frame_Shift_Ins	INS	-	-	T	ATR.NM_001184.exon10:c.2320		

CCDC110	P2	4	186380243	186380243	Misense_Mutation	SNP	A	A	C	CCDC110.NM_152775.exon6:c.1488T>G	63.33	NM_152775
KLKB1	P2	4	187178473	187178473	Misense_Mutation	SNP	G	G	A	KLKB1.NM_008952.exon14:c.1679G>A	37.93	NM_008952
SORCS2	P2	4	7728561	7728561	Misense_Mutation	SNP	G	G	A	SORCS2.NM_020777.exon21:c.2800G>A	15.15	NM_020777
FRAS1	P2	4	79367890	79367890	Misense_Mutation	SNP	G	G	A	FRAS1.NM_025071.exon4:c.5866G>A	19.74	NM_025071
SPINK5	P2	5	147496045	147496045	Misense_Mutation	SNP	G	G	A	SPINK5.NM_008816.exon25:c.2387G>A	32.47	NM_008816
ADAMTS6	P2	5	64756126	64756126	Misense_Mutation	SNP	C	C	T	ADAMTS6.NM_197941.exon4:c.502G>A	15.87	NM_197941
POCS	P2	5	75001582	75001582	Misense_Mutation	SNP	A	A	G	POCS.NM_001099271.exon4:c.2547C>G	60.87	NM_001099271
IQGAP2	P2	5	75927738	75927738	Misense_Mutation	SNP	A	A	T	IQGAP2.NM_006633.exon15:c.1667A>T	16.52	NM_006633
ZBTB2	P2	6	151687638	151687638	Misense_Mutation	SNP	G	G	A	ZBTB2.NM_020861.exon3:c.565C>T	19.63	NM_020861
RSPH3	P2	6	159399348	159399348	Misense_Mutation	SNP	A	A	G	RSPH3.NM_031924.exon7:c.1316T>C	36.84	NM_031924
IMP1	P2	6	76631823	76631823	Misense_Mutation	SNP	C	C	T	IMP1.NM_001563.exon17:c.2377G>C	41.67	NM_001563
CTTNBP2	P2	7	117450845	117450845	Misense_Mutation	SNP	C	C	T	CTTNBP2.NM_033427.exon3:c.388G>A	43.59	NM_033427
WEE2	P2	7	141429437	141429437	Misense_Mutation	SNP	G	G	A	WEE2.NM_00105508.exon11:c.1640G>C	10.26	NM_00105508
PKD1L1	P2	7	47917119	47917119	Misense_Mutation	SNP	C	C	T	PKD1L1.NM_138295.exon22:c.3631G>A	13.1	NM_138295
GUSB	P2	7	65441045	65441045	Misense_Mutation	SNP	G	G	A	GUSB.NM_000181.exon5:c.869C>T	10.34	NM_000181
PUF60	P2	8	144899294	144899294	Misense_Mutation	SNP	G	G	C	PUF60.NM_078480.exon11:c.1166C>G	27.84	NM_078480
FOCAD	P2	9	20819889	20819889	Misense_Mutation	SNP	G	G	T	FOCAD.NM_017794.exon14:c.1555G>T	42.86	NM_017794
RORB	P2	9	77257699	77257699	Misense_Mutation	SNP	A	A	G	RORB.NM_006914.exon4:c.605A>G	30.34	NM_006914
FOXR2	P2	X	55650629	55650629	Misense_Mutation	SNP	C	C	A	FOXR2.NM_189451.exon11:c.488C>A	18.87	NM_189451
ELMOD1	P3	11	107502336	107502336	Misense_Mutation	SNP	G	G	A	ELMOD1.NM_018712.exon5:c.223G>A	10.67	NM_018712
WSCD2	P3	12	108603974	108603974	Misense_Mutation	SNP	G	G	A	WSCD2.NM_014652.exon4:c.574G>A	5.45	NM_014652
OBSN	P3	1	228444454	228444454	Misense_Mutation	SNP	C	C	T	OBSN.NM_001271223.exon16:c.4688C>T	32.56	NM_001271223
SV2B	P3	15	91769716	91769716	Misense_Mutation	SNP	C	C	T	SV2B.NM_014848.exon3:c.223C>T	5.69	NM_014848
C16orf78	P3	16	49430376	49430376	Misense_Mutation	SNP	G	G	A	C16orf78.NM_144602.exon4:c.437G>A	14	NM_144602
EDC4	P3	16	67912294	67912294	Misense_Mutation	SNP	C	C	T	EDC4.NM_014329.exon5:c.1036C>T	15.12	NM_014329
PSGN	P3	19	43762546	43762546	Misense_Mutation	SNP	C	C	T	PSGN.NM_002784.exon5:c.1051G>A	13.69	NM_002784
NR1H2	P3	19	50882412	50882412	Misense_Mutation	SNP	G	G	A	NR1H2.NM_007121.exon7:c.901G>A	12.9	NM_007121
SMARCB1	P3	22	24133967	24133967	Nonsense_Mutation	SNP	C	C	T	SMARCB1.NM_003073.exon2:c.118C>T	13.33	NM_003073
SULT1B1	P3	2	37406711	37406711	Misense_Mutation	SNP	C	C	T	SULT1B1.NM_001032377.exon4:c.305G>A	12.24	NM_001032377
APC	P3	5	112173917	112173917	Nonsense_Mutation	SNP	C	C	T	APC.NM_000038.exon16:c.2626C>T	26.52	NM_000038
APC	P3	5	112173618	112173618	Frame_Shift_ins	DEL	C	C	-	APC.NM_000038.exon16:c.4328deletion	39.16	NM_000038
PITRM1	P3	10	3208567	3208567	Frame_Shift_ins	INS	-	-	-	PITRM1.NM_001242307.exon4:c.271_272insCATTCTCTCTCTCC	41.05	NM_001242307
LDB3	P3	10	88451678	88451678	Misense_Mutation	SNP	G	G	A	LDB3.NM_007078.exon5:c.715G>A	13.98	NM_007078
PKLR	P3	1	15269931	15269931	Misense_Mutation	SNP	C	C	T	PKLR.NM_000298.exon2:c.241G>A	11.11	NM_000298
TSKU	P3	11	76507688	76507688	Misense_Mutation	SNP	G	G	A	TSKU.NM_001318477.exon2:c.107G>A	18.46	NM_001318477
TENM4	P3	11	78498012	78498012	Misense_Mutation	SNP	C	C	T	TENM4.NM_001098818.exon1:c.2296G>A	25.53	NM_001098818
TENM4	P3	11	78565286	78565286	Misense_Mutation	SNP	C	C	T	TENM4.NM_001098818.exon1:c.1544G>A	15.38	NM_001098818
LAMC1	P3	1	183105592	183105592	Nonsense_Mutation	SNP	C	C	T	LAMC1.NM_002253.exon5:c.4186C>T	19.35	NM_002253
IKBKE	P3	1	206669465	206669465	Misense_Mutation	SNP	C	C	T	IKBKE.NM_014002.exon2:c.2138C>T	45.83	NM_014002
KNTC1	P3	12	12305743	12305743	Misense_Mutation	SNP	C	C	T	KNTC1.NM_014708.exon26:c.2194C>T	21.17	NM_014708
SOX1	P3	13	112723111	112723111	In_Frame_ins	INS	-	-	GGGGGT	SOX1.NM_005986.exon1:c.1141_1146insGGGGGT	42.42	NM_005986
LRP8	P3	1	53746310	53746310	Misense_Mutation	SNP	C	C	T	LRP8.NM_004631.exon4:c.445G>A	13.91	NM_004631
C15orf39	P3	15	75499490	75499490	Misense_Mutation	SNP	C	C	G	C15orf39.NM_015492.exon2:c.110C>G	26.57	NM_015492
ISL2	P3	15	76534135	76534135	Misense_Mutation	SNP	G	G	T	ISL2.NM_145805.exon8:c.1039G>T	13.64	NM_145805
TACSTD2	P3	1	59042494	59042494	Misense_Mutation	SNP	C	C	T	TACSTD2.NM_002353.exon1:c.338G>A	13.25	NM_002353
SSTR5	P3	16	1129733	1129733	Misense_Mutation	SNP	G	G	A	SSTR5.NM_001053.exon1:c.865G>A	11.28	NM_001053
TXNDC11	P3	16	11836508	11836508	Misense_Mutation	SNP	G	G	A	TXNDC11.NM_001303447.exon1:c.780T>P	46.67	NM_001303447
DNAH3	P3	16	20990740	20990740	Misense_Mutation	SNP	G	G	A	DNAH3.NM_017539.exon50:c.7988C>T	38.24	NM_017539
BICDL2	P3	16	3079685	3079685	Misense_Mutation	SNP	T	T	C	BICDL2.NM_001103175.exon5:c.818A>G	60	NM_001103175
RFX1	P3	16	7703915	7703915	Misense_Mutation	SNP	G	G	A	RFX1.NM_001308117.exon12:c.985G>A	22.22	NM_001308117
HASPN	P3	17	3628656	3628656	Misense_Mutation	SNP	G	G	A	HASPN.NM_001965.exon1:c.1427G>A	13.74	NM_001965
TBX21	P3	17	45822289	45822289	Misense_Mutation	SNP	G	G	C	TBX21.NM_013351.exon6:c.1165G>C	11.76	NM_013351
UTP18	P3	17	49357831	49357831	Misense_Mutation	SNP	G	G	A	UTP18.NM_016001.exon9:c.1195G>A	17.54	NM_016001
COG1	P3	17	7197890	7197890	Misense_Mutation	SNP	C	C	A	COG1.NM_018714.exon7:c.1924C>A	41.35	NM_018714
KCNQ2	P3	18	77623854	77623854	Misense_Mutation	SNP	G	G	A	KCNQ2.NM_012283.exon1:c.187G>A	14.85	NM_012283
PAK4	P3	19	3963643	3963643	Misense_Mutation	SNP	C	C	A	PAK4.NM_005884.exon4:c.290C>G	23.88	NM_005884
LRFN1	P3	19	3980533	3980533	Misense_Mutation	SNP	A	A	T	LRFN1.NM_009692.exon1:c.844T>A	21.43	NM_009692
SPTBN4	P3	19	41018705	41018705	Misense_Mutation	SNP	C	C	T	SPTBN4.NM_020971.exon14:c.2095C>T	42.22	NM_020971
MADCAM1	P3	19	501701	501701	Misense_Mutation	SNP	G	G	A	MADCAM1.NM_150760.exon4:c.700G>A	48.65	NM_150760
MADCAM1	P3	19	501719	501719	Misense_Mutation	SNP	T	T	C	MADCAM1.NM_150760.exon4:c.718T>C	67.5	NM_150760
R3HDM4	P3	19	899617	899617	Misense_Mutation	SNP	C	C	T	R3HDM4.NM_138774.exon6:c.631G>A	12.68	NM_138774
SAP130	P3	2	12873988	12873988	Misense_Mutation	SNP	G	G	A	SAP130.NM_001145928.exon4:c.560C>T	31.09	NM_001145928
URB1	P3	21	33694176	33694176	Misense_Mutation	SNP	G	G	A	URB1.NM_014825.exon34:c.5419C>T	30.85	NM_014825
NEB	P3	2	152420351	152420351	Misense_Mutation	SNP	G	G	T	NEB.NM_001271208.exon18:c.1856C>A	18.75	NM_001271208
SCARF2	P3	22	20780026	20780026	Misense_Mutation	COMPLEX	GCGG	GCGG	GCGGGC	SCARF2.NM_153334.exon12:c.2247_2250delGCGCGCGG	11.54	NM_153334
P2RX6	P3	22	21377288	21377288	Nonsense_Mutation	SNP	G	G	A	P2RX6.NM_005446.exon5:c.521G>A	32.61	NM_005446
ZFP36L2	P3	2	43451955	43451955	Frame_Shift_ins	COMPLEX	CAGCC	CAGCC	GCT	ZFP36L2.NM_006887.exon2:c.984_986delGGCGTGGAGC	26.32	NM_006887
TMEM247	P3	2	46707851	46707851	Misense_Mutation	SNP	G	G	A	TMEM247.NM_00146691.exon2:c.425G>A	59.84	NM_00146691
CCDC80	P3	3	112358175	112358175	Misense_Mutation	SNP	G	G	A	CCDC80.NM_199511.exon2:c.578C>T	39.55	NM_199511
WNT5A	P3	3	55504410	55504410	Misense_Mutation	SNP	C	C	T	WNT5A.NM_003392.exon5:c.853G>A	37.97	NM_003392
BHMT2	P3	5	78384318	78384318	Misense_Mutation	SNP	C	C	A	BHMT2.NM_0017614.exon8:c.1013C>G	13.33	NM_0017614
IP6K3	P3	6	33695880	33695880	Misense_Mutation	SNP	G	G	A	IP6K3.NM_054111.exon3:c.397C>T	15.56	NM_054111
UHRF1BP1	P3	6	34826040	34826040	Misense_Mutation	SNP	G	G	A	UHRF1BP1.NM_017754.exon14:c.1907G>A	14.29	NM_017754
RCAN2	P3	6	46190991	46190991	Misense_Mutation	SNP	C	C	T	RCAN2.NM_001251973.exon5:c.619G>A	22.79	NM_001251973
WDR86	P3	7	151082198	151082198	Misense_Mutation	SNP	C	C	T	WDR86.NM_001294260.exon4:c.9G>A	32.39	NM_001294260
ABCA13	P3	7	48273718	48273718	Misense_Mutation	SNP	G	G	C	ABCA13.NM_152701.exon8:c.867G>T	12.5	NM_152701
GSDMD	P3	8	144841557	144841557	Misense_Mutation	SNP	C	C	G	GSDMD.NM_024738.exon2:c.52C>G	13.79	NM_024738
SCRIB	P3	8	144887461	144887461	Misense_Mutation	SNP	C	C	T	SCRIB.NM_182706.exon19:c.2491G>A	11.46	NM_182706
CSMD1	P3	8	2857534	2857534	Misense_Mutation	SNP	C	C	A	CSMD1.NM_033225.exon3:c.814G>A	15.85	NM_033225
STAB2	P4	12	104105290	104105290	Misense_Mutation	SNP	C	C	T	STAB2.NM_017564.exon40:c.4330G>A	35.09	NM_017564
GJA4	P4	1	35260514	35260514	Misense_Mutation	SNP	C	C	T	GJA4.NM_002060.exon2:c.700C>T	17.95	NM_002060

SLC6A11	P4	3	10885924	10885924	Misense_Mutation	SNP	G	G	A	SLC6A11:NM_014229:exon5:c.649 G>A p.G217R	22.33	NM_014229
FBXW7	P4	4	153245447	153245447	Misense_Mutation	SNP	A	A	G	FBXW7:NM_033632:exon11:c.174 4T>C p.S582P	6	NM_033632
APC	P4	5	112173917	112173917	Nonsense_Mutation	SNP	C	C	T	APC:NM_000038:exon16:c.2626C >T p.R876*	28.85	NM_000038
APC	P4	5	112175639	112175639	Nonsense_Mutation	SNP	C	C	T	APC:NM_000038:exon16:c.4348C >T p.R1450*	28.41	NM_000038
CRTAC1	P4	10	99696056	99696056	Misense_Mutation	SNP	C	C	T	CRTAC1:NM_018058:exon3:c.292 C>A p.D36N	17.02	NM_018058
CNTN5	P4	11	100061886	100061886	Misense_Mutation	SNP	C	C	T	CNTN5:NM_014361:exon14:c.160 9C>T p.R537W	30.09	NM_014361
KDEL2	P4	11	108350085	108350085	Misense_Mutation	SNP	A	A	C	KDEL2:NM_153705:exon6:c.123 4T>G p.H412D	19.3	NM_153705
ARHGEP12	P4	11	120351125	120351125	Misense_Mutation	SNP	A	A	G	ARHGEP12:NM_015313:exon38:c.4223A>G p.N1408S	40.71	NM_015313
IVL	P4	1	152883680	152883680	Misense_Mutation	SNP	A	A	T	IVL:NM_005547:exon2:c.1407A>T p.Q249H	33.59	NM_005547
ORS1B2	P4	11	5345158	5345158	Misense_Mutation	SNP	T	T	C	ORS1B2:NM_033180:exon1:c.370 A>G p.H124V	32.24	NM_033180
NES	P4	1	156642748	156642748	In_Frame_Del	DEL	GAG	GAG	-	NES:NM_006917:exon4:c.1232_1234delCTC p.P411del	28.21	NM_006917
NME7	P4	1	169239892	169239892	Misense_Mutation	SNP	T	T	C	NME7:NM_013330:exon2:c.50A>G p.N17S	29.46	NM_013330
PITPNM2	P4	12	123485684	123485684	Misense_Mutation	SNP	C	C	G	PITPNM2:NM_020845:exon8:c.106 G>C p.D354H	27.94	NM_020845
SMYD2	P4	1	214504326	214504326	Misense_Mutation	SNP	G	G	A	SMYD2:NM_020197:exon9:c.850G >A p.D284N	35	NM_020197
CAPZA3	P4	12	18891215	18891215	Misense_Mutation	SNP	G	G	A	CAPZA3:NM_033329:exon1:c.13G >A p.V38M	39.08	NM_033328
CACNA2D4	P4	12	1993428	1993428	Nonsense_Mutation	SNP	C	C	T	CACNA2D4:NM_172364:exon12:c.133G>A p.W444*	32.94	NM_172364
HLX	P4	1	221053600	221053600	Misense_Mutation	SNP	A	A	C	HLX:NM_021958:exon1:c.401A>C p.Q149P	28.04	NM_021958
EPB42	P4	15	43512988	43512988	Misense_Mutation	SNP	C	C	T	EPB42:NM_000119:exon1:c.26G>A p.R9H	35.85	NM_000119
CLUH	P4	17	2958597	2958597	Misense_Mutation	SNP	C	C	T	CLUH:NM_015229:exon2:c.3289 34delCTC p.P411del	34.04	NM_015229
SARM1	P4	17	26699196	26699196	Frame_Shift_Ins	COMPLEX	CGGGCCCGCGG A	CGGGCCCGCGG A	CGGGCCCGCGG A	150delCGGGCCCGCGGinsCGGGCCCGCGG p.P485	15.38	NM_015077
TMEM99	P4	17	38991247	38991247	Misense_Mutation	SNP	A	A	C	TMEM99:NM_145274:exon3:c.479 A>C p.H160P	26.25	NM_145274
DNAH17	P4	17	76451776	76451776	Misense_Mutation	SNP	G	G	A	DNAH17:NM_173628:exon63:c.10 12C>T p.R3374W	24.42	NM_173628
ZNF878	P4	19	12154799	12154799	Misense_Mutation	SNP	G	G	C	ZNF878:NM_001080404:exon4:c.1 417C>G p.H473D	45.45	NM_001080404
FCHO1	P4	19	17875219	17875219	Misense_Mutation	SNP	C	C	T	FCHO1:NM_001161351:exon6:c.1 55C>T p.A52V	26.44	NM_001161351
GMP	P4	19	19747825	19747825	Misense_Mutation	SNP	T	T	C	GMP:NM_016573:exon12:c.1138A >G p.P380V	45.28	NM_016573
TJP3	P4	19	3746010	3746010	Misense_Mutation	SNP	G	G	T	TJP3:NM_001267561:exon16:c.19 68G>T p.E596D	28.57	NM_001267561
ZNF446	P4	19	58991828	58991828	Misense_Mutation	SNP	C	C	T	ZNF446:NM_017908:exon7:c.1088 C>T p.P363L	41.98	NM_017908
TGM6	P4	20	2384368	2384368	Misense_Mutation	SNP	G	G	A	TGM6:NM_188994:exon8:c.1235G >A p.R412H	29.63	NM_188994
FAM83D	P4	20	37555158	37555158	Misense_Mutation	SNP	A	A	G	FAM83D:NM_030919:exon1:c.73A >G p.T25A	32.5	NM_030919
RIPOR3	P4	20	49219025	49219025	Misense_Mutation	SNP	G	G	A	RIPOR3:NM_001290268:exon13:c.1243C>T p.P415S	30.38	NM_001290268
FAM171B	P4	2	187559029	187559030	In_Frame_Ins	INS	-	-	CAG	FAM171B:NM_177454:exon1:c.14 7_149dupGCA p.Q50dup	17.65	NM_177454
HIC2	P4	22	21800776	21800776	Misense_Mutation	SNP	G	G	A	HIC2:NM_015094:exon3:c.1592G>A p.R510Q	24.81	NM_015094
GIGYF2	P4	2	233660881	233660881	Misense_Mutation	SNP	A	A	G	GIGYF2:NM_001103147:exon16:c.1652A>G p.H551R	32.14	NM_001103147
DRC1	P4	2	26676222	26676222	Misense_Mutation	SNP	C	C	T	DRC1:NM_145038:exon14:c.1724 C>T p.A575V	37.5	NM_145038
SLC25A36	P4	3	140678306	140678306	Misense_Mutation	SNP	G	G	T	SLC25A36:NM_001104647:exon3:c.208G>T p.V70L	33.33	NM_001104647
NLGN1	P4	3	173998554	173998554	Misense_Mutation	SNP	C	C	T	NLGN1:NM_014932:exon7:c.1933 C>T p.P645S	35.67	NM_014932
ARAP3	P4	5	141052442	141052442	Misense_Mutation	SNP	G	G	A	ARAP3:NM_022481:exon8:c.1144 C>T p.R380C	31.25	NM_022481
IRF5	P4	7	128587344	128587373	In_Frame_Del	DEL	GGCCGCCCACT CTGCAGCCGCGC CACTCTGC	GGCCGCCCACT CTGCAGCCGCGC CACTCTGC	-	IRF5:NM_001098629:exon5:c.549 578delCACTCTGCAGCCGCCCACTCTGCAGCCGCGC p.T184_P193del	28.95	NM_001098629
ETV1	P4	7	13940436	13940436	Misense_Mutation	SNP	T	T	C	ETV1:NM_004956:exon13:c.1139A >G p.N380S	35.04	NM_004956
KEL	P4	7	142658528	142658528	Misense_Mutation	SNP	C	C	T	KEL:NM_000420:exon3:c.142G>A p.V48M	25.58	NM_000420
PCLO	P4	7	82784832	82784832	Misense_Mutation	SNP	C	C	G	PCLO:NM_030326:exon2:c.1125G >C p.Q375H	53.62	NM_030326
ODF1	P4	8	103573006	103573006	Misense_Mutation	SNP	G	G	A	ODF1:NM_024410:exon2:c.647G>A p.S216N	52.42	NM_024410
C3orf84	P4	9	114500617	114500617	Misense_Mutation	SNP	A	A	G	C3orf84:NM_173521:exon10:c.116 8T>C p.S390P	40	NM_173521
GBA2	P4	9	35738334	35738346	Frame_Shift_Ins	DEL	CAGCCACAGT GC	CAGCCACAGCTGC	-	GBA2:NM_020944:exon14:c.2080_2092delGAGCAGCTGTGCTG p.A69	19.53	NM_020944
IGSF1	P4	X	130410160	130410160	Misense_Mutation	SNP	-	-	A	IGSF1:NM_001170961:exon15:c.2 686G>T p.V86L	33.33	NM_001170961
AMER1	P4	X	63412647	63412648	Frame_Shift_Ins	INS	-	-	A	AMER1:NM_152424:exon2:c.519d upT p.S174fs	65.15	NM_152424