

## Somatic mutations identified in patients with GGN

Sample ID	Gene	HGVSc	HGVSp	RefSeq
Ca0001	GBP5	c.1517C>T	p.Ala506Val	NM_001134486.2, NM_052942.3
Ca0001	PALMD	c.1350G>T	p.Glu450Asp	NM_017734.4
Ca0001	NEB	c.9308C>T	p.Thr3103Ile	NM_001164508.1
Ca0001	LY75-CD302	c.3280G>T	p.Glu1094Ter	NM_001198759.1
Ca0001	CCR8	c.31A>T	p.Thr11Ser	NM_005201.3
Ca0001	DRD5	c.676G>A	p.Ala226Thr	NM_000798.4
Ca0001	PCDHA12	c.2161C>G	p.Leu721Val	NM_018903.2, NM_031864.2
Ca0001	PPP2R2B	c.940A>G	p.Met314Val	NM_181676.2
Ca0001	KCNU1	c.1099C>A	p.Leu367Met	NM_001031836.2
Ca0001	TLR4	c.1109T>C	p.Val370Ala	NM_138557.2, NM_138554.4
Ca0001	OR4A47	c.826A>T	p.Ile276Leu	NM_001005512.2
Ca0001	OR4S2	c.429A>T	p.Leu143Phe	NM_001004059.2
Ca0001	BTBD18	c.641G>A	p.Cys214Tyr	NM_001145101.1
Ca0001	OVCH1	c.2509C>T	p.Pro837Ser	NM_183378.2
Ca0001	KCNC2	c.432C>A	p.Asp144Glu	NM_001260497.1, NM_139137.3
Ca0001	SFSWAP	c.1382A>T	p.Asp461Val	NM_001261411.1
Ca0001	RPGRIP1	c.332A>G	p.Gln111Arg	NM_020366.3
Ca0001	ITGAX	c.345G>T	p.Glu115Asp	NM_000887.3
Ca0001	SLC38A7	c.1174G>A	p.Gly392Ser	
Ca0001	ERBB2	c.1003A>T	p.Ser335Cys	
Ca0001	MAPT	c.1193G>A	p.Arg398His	NM_001123066.3
Ca0001	ABCA5	c.269G>A	p.Ser90Asn	
Ca0001	PGLYRP2	c.1222T>C	p.Tyr408His	NM_052890.3
Ca0001	CENPB	c.-54_9del		NM_001810.5
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Ca0001	FERMT1	c.189G>T	p.Trp63Cys	NM_017671.4
Ca0001	KDM5C	c.82C>T	p.Leu28Phe	NM_004187.3
Ca0001	HEPH	c.2483A>T	p.Asp828Val	
Ca0001	SLITRK2	c.844G>A	p.Val282Ile	
Ca0101	PRAMEF14	c.927_928inv	p.Met310Val	
Ca0101	CHD1L	c.400_404del	p.Ala134ProfsTer19	NM_001256336.1, NM_024568.2, NM_004284.4
Ca0101	DEAF1	c.69_98del	p.Ala24_Ala33del	NM_021008.2
Ca0101	PLCB3	c.643C>T	p.Arg215Trp	NM_000932.2
Ca0101	PLEKHH1	c.3183+3_3183+33del		NM_020715.2
Ca0101	HERC2	c.7231_7245del	p.Cys2411_Ala2415del	NM_004667.5
Ca0101	RYR1	c.8605C>T	p.Arg2869Trp	
Ca0101	AIFM3	c.329C>T	p.Pro110Leu	NM_144704.2
Ca0201	DMRTB1	c.451G>A	p.Ala151Thr	NM_033067.1
Ca0201	SLC41A1	c.354G>A	p.Met118Ile	NM_173854.4

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Ca0201	GLCCI1	c. 1180A>C	p. Ser394Arg	NM_138426. 3
Ca0201	CLPB	c. 64A>G	p. Arg22Gly	NM_001258394. 1, NM_030813. 4
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Ca0201	PLCG2	c. 389A>T	p. His130Leu	NM_002661. 3
Ca0201	CDK12	c. 588C>G	p. Asp196Glu	NM_015083. 1, NM_016507. 2
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Ca0102	TSHZ1	c. 1327G>T	p. Asp443Tyr	NM_005786.5
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Ca0102	ZIM2	c. 1114A>T	p. Asn372Tyr	NM_001146327.1, NM_001146326.1
Ca0102	USP29	c. 948A>T	p. Gln316His	NM_020903.2
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Ca0102	RIPK4	c. 398A>C	p. His133Pro	NM_020639.2
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Ca0003	CCDC85A	c. 592G>A	p. Ala198Thr	NM_001080433.1
Ca0003	THUMP3	c. 398G>A	p. Trp133Ter	NM_001114092.1, NM_015453.2
Ca0003	C6orf15	c. 686C>T	p. Thr229Met	NM_014070.2
Ca0003	TRAM2	c. 88_92del	p. Val130LeufsTer24	NM_012288.3
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Ca0003	ERBB2	c. 2326G>A	p. Gly776Ser	
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Ca0103	FGGY	c. 418del	p. Val140Ter	NM_001113411. 1
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Ca0103	MTSSL1L	c. 1677del	p. Gly560AlafsTer34	NM_138383. 2
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Ca0005	PLCH2	c. 422G>A	p. Arg141His	
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Ca0005	SCN7A	c. 193C>T	p. Pro65Ser	NM_002976. 3
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Ca0005	PTPDC1	c. 899G>A	p. Arg300His	NM_001253829. 1, NM_152422. 4
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Ca0005	FAM98C	c. 950del	p. Gly317AlafsTer49	NM_174905.3
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Ca0006	OBSCN	c. 690G>A	p. Met230Ile	NM_001271223.2
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Ca0006	CYP2U1	c. 1376C>T	p. Pro459Leu	NM_183075.2
Ca0006	UGT8	c. 619G>T	p. Val207Phe	NM_001128174.1
Ca0006	CWC27	c. 1408_1410del	p. Glu470del	NM_005869.2
Ca0006	ANKRA2	c. 176_177delinsTT	p. Arg59Leu	NM_023039.4
Ca0006	DDX46	c. 604G>C	p. Asp202His	
Ca0006	KIF20A	c. 1440G>A	p. Met480Ile	NM_005733.2
Ca0006	TTBK1	c. 2521C>A	p. Pro841Thr	NM_032538.1
Ca0006	EGFR	c. 2240_2257del	p. Leu747_Pro753delinsSer	NM_005228.3
Ca0006	ZNF804B	c. 3484C>A	p. Gln1162Lys	NM_181646.2
Ca0006	ZC3HAV1	c. 91_94del	p. Ala31CysfsTer90	NM_020119.3
Ca0006	STC1	c. 693_697del	p. Glu232GlyfsTer12	NM_003155.2
Ca0006	SDC2	c. 231A>G	p. Ile77Met	NM_002998.3
Ca0006	UNC13B	c. 2683G>C	p. Asp895His	NM_006377.3

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Ca0006	TAF3	c. 2504C>T	p. Ala835Val	NM_031923.3
Ca0006	OR8J3	c. 236C>T	p. Pro79Leu	NM_001004064.1
Ca0006	MS4A1	c. 279+1G>C		NM_152866.2
Ca0006	SLC22A8	c. 916T>A	p. Ser306Thr	NM_001184736.1, NM_001184732.1, NM_004254.3
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Ca0006	KRAS	c. 34G>T	p. Gly12Cys	NM_033360.2
Ca0006	MYO16	c. 3299G>A	p. Arg1100His	NM_015011.1
Ca0006	GPR135	c. 1199G>C	p. Arg400Pro	NM_022571.5
Ca0006	BCL11B	c. 1220C>T	p. Pro407Leu	NM_138576.2, NM_001282237.1
Ca0006	TNFAIP2	c. 512C>G	p. Ala171Gly	
Ca0006	FAN1	c. 1129C>T	p. Arg377Trp	NM_014967.4
Ca0006	MAP1A	c. 5866C>A	p. Pro1956Thr	
Ca0006	AAGAB	c. 362-1G>A		NM_024666.4, NM_001271886.1
Ca0006	CRTC3	c. 1388G>C	p. Arg463Pro	
Ca0006	CDH3	c. 504G>T	p. Leu168Phe	NM_001793.4
Ca0006	JPH3	c. 833A>T	p. Asp278Val	NM_020655.3
Ca0006	MYH13	c. 721G>T	p. Asp241Tyr	
Ca0006	MYH13	c. 647G>A	p. Gly216Glu	
Ca0006	TBX4	c. 524A>C	p. Asn175Thr	NM_018488.2
Ca0006	BRIP1	c. 2620T>C	p. Phe874Leu	NM_032043.2
Ca0006	MC5R	c. 223G>A	p. Val75Met	NM_005913.2
Ca0006	TXNL1	c. 243T>A	p. Phe81Leu	NM_004786.2
Ca0006	ABCA7	c. 5267A>G	p. Gln1756Arg	NM_019112.3
Ca0006	AMH	c. 347G>C	p. Arg116Pro	NM_000479.3
Ca0006	SLC1A6	c. 520A>T	p. Thr174Ser	NM_005071.2
Ca0006	CYP4F3	c. 1469G>A	p. Arg490His	NM_000896.2
Ca0006	EFCAB6	c. 640G>A	p. Glu214Lys	NM_022785.3
Ca0006	DCAF8L1	c. 1595G>A	p. Arg532Gln	NM_001017930.1
Ca0106	ZNF595	c. 4G>A	p. Glu2Lys	
Ca0106	EVC2	c. 2237del	p. Lys746ArgfsTer14	NM_147127.4
Ca0106	RXRB	c. 155C>T	p. Ala52Val	
Ca0106	ABCA13	c. 2038_2039insCATGGGAA	p. Asn680ThrfsTer9	NM_152701.3
Ca0106	KMT2E	c. 4854C>G	p. His1618Gln	NM_182931.2
Ca0106	IRF5	c. 37C>T	p. Arg13Cys	
Ca0106	MAFA	c. 582_584del	p. His196del	NM_201589.3
Ca0106	FAM122A	c. 79G>A	p. Gly27Ser	NM_138333.3
Ca0106	PALM2- AKAP2	c. 2665del	p. Gln889SerfsTer33	NM_007203.4, NM_147150.2
Ca0106	LARP4B	c. 1256G>A	p. Arg419Gln	NM_015155.2
Ca0106	ANKRD26	c. 1016A>G	p. Gln339Arg	NM_014915.2, NM_001256053.1
Ca0106	OR56A1	c. 316C>A	p. Leu106Ile	NM_001001917.2

Ca0106	ARHGAP1	c. 709del	p. Leu237CysfsTer135	NM_004308. 3
Ca0106	FAT3	c. 3345G>T	p. Trp1115Cys	
Ca0106	KRAS	c. 35G>A	p. Gly12Asp	NM_033360. 2
Ca0106	DUSP6	c. 395T>A	p. Leu132Gln	NM_001946. 2
Ca0106	POP5	c. 384C>G	p. Asn128Lys	NM_015918. 3
Ca0106	ITM2B	c. 93del	p. Asp32ThrfsTer30	NM_021999. 4
Ca0106	AREL1	c. 52A>T	p. Thr18Ser	NM_001039479. 1
Ca0106	BRD7	c. 830A>G	p. Glu277Gly	NM_001173984. 2, NM_013263. 4
Ca0106	CNROB	c. 2765del	p. Gly922GlufsTer?	NM_001037144. 5
Ca0106	FOXN1	c. 1201_1216del	p. Pro401AlafsTer144	NM_003593. 2
Ca0106	WNT9B	c. 549C>A	p. Asn183Lys	NM_003396. 1
Ca0106	ERN1	c. 1484A>T	p. Gln495Leu	NM_001433. 3
Ca0106	CALR3	c. 3_4delinsTT	p. MetAla1_22	NM_145046. 4
Ca0106	PRX	c. 3824C>T	p. Ser1275Leu	NM_181882. 2
Ca0106	SLC8A2	c. 147C>A	p. Cys49Ter	NM_015063. 2
Ca0106	POFUT2	c. 382+2_382+6del		NM_133635. 4
Ca0106	TNRC6B	c. 5134A>G	p. Thr1712Ala	NM_001162501. 1
Ca0106	ARSA	c. 482T>A	p. Leu161Gln	NM_000487. 5
Ca0007	<b>XRCC5</b>	c. 866T>C	p. Ile289Thr	
Ca0007	SNTN	c. 106A>C	p. Lys36Gln	NM_001080537. 1
Ca0007	MAB21L2	c. 386G>A	p. Arg129His	NM_006439. 4
Ca0007	MAP1B	c. 5128T>A	p. Ser1710Thr	NM_005909. 3
Ca0007	EGFR	c. 2239_2247del	p. Leu747_Glu749del	NM_005228. 3
Ca0007	EGFR	c. 2248G>C	p. Ala750Pro	NM_005228. 3
Ca0007	ANKRD18A	c. 89T>G	p. Ile30Ser	NM_147195. 2
Ca0007	TLR4	c. 427A>G	p. Asn143Asp	NM_138557. 2, NM_138554. 4
Ca0007	MYO7A	c. 3836C>T	p. Thr1279Met	NM_000260. 3
Ca0007	TSKS	c. 1228G>T	p. Glu410Ter	NM_021733. 1
Ca0007	KDM5C	c. 4583C>T	p. Pro1528Leu	NM_004187. 3
Ca0007	MED12	c. 2422G>A	p. Gly808Ser	
Ca0009	PTCD3	c. 1919C>T	p. Pro640Leu	NM_017952. 5
Ca0009	ADH1C	c. 430G>A	p. Val144Ile	NM_000669. 3
Ca0009	BBS12	c. 1402G>A	p. Gly468Arg	NM_001178007. 1
Ca0009	FAM193B	c. 219del	p. Ala74ProfsTer49	NM_001190946. 1
Ca0009	PCSK5	c. 1085G>T	p. Gly362Val	NM_001190482. 1
Ca0009	NLRP6	c. 1832A>G	p. Glu611Gly	NM_001276700. 1, NM_138329. 2
Ca0009	MYF5	c. 250C>T	p. Arg84Trp	NM_005593. 2
Ca0009	ASCL1	c. 114_128del	p. Ala43_Ala47del	NM_004316. 3
Ca0009	CHTF8	c. 74A>G	p. Glu25Gly	NM_001039690. 3, NM_001040146. 3
Ca0009	ERBB2	c. 2324_2325insGTACGTGATGCC	p. Tyr772_Ala775dup	
Ca0009	TGFB1	c. 29_31del	p. Pro10del	NM_000660. 4
Ca0009	CHGB	c. 506A>G	p. Glu169Gly	NM_001819. 2
Ca0009	DDX27	c. 49G>T	p. Gly17Ter	NM_017895. 7



Ca0109	LIN28A	c. 476A>G	p. Lys159Arg	NM_024674. 4
Ca0109	PGM1	c. 720dup	p. Asp241Ter	NM_001172818. 1
Ca0109	PPM1J	c. 1487T>C	p. Ile496Thr	NM_005167. 5
Ca0109	ZNF670	c. 1063C>T	p. His355Tyr	NM_001204220. 1, NM_033213. 4
Ca0109	OR2AK2	c. 701C>T	p. Ala234Val	NM_001004491. 1
Ca0109	EFR3B	c. 413G>A	p. Ser138Asn	NM_014971. 1
Ca0109	EMILIN1	c. 2635T>G	p. Leu879Val	NM_007046. 3
Ca0109	DHX57	c. 2780A>T	p. Tyr927Phe	NM_198963. 1
Ca0109	DNAH6	c. 5439A>T	p. Lys1813Asn	NM_001370. 1
Ca0109	MYO7B	c. 5780C>T	p. Ser1927Leu	NM_001080527. 1
Ca0109	CHRND	c. 866C>T	p. Ser289Phe	NM_000751. 2
Ca0109	HJURP	c. 1324C>T	p. His442Tyr	NM_018410. 3
Ca0109	AGXT	c. 1006G>A	p. Val336Ile	NM_000030. 2
Ca0109	SLC25A38	c. 350G>A	p. Arg117Gln	NM_017875. 2
Ca0109	HIFX	c. 466C>T	p. Arg156Cys	NM_006026. 3
Ca0109	HELQ	c. 2794G>T	p. Val932Phe	NM_133636. 2
Ca0109	NDST4	c. 412A>T	p. Lys138Ter	NM_022569. 1
Ca0109	PRSS48	c. 707G>A	p. Gly236Glu	NM_183375. 2
Ca0109	PJA2	c. 1477A>G	p. Thr493Ala	NM_014819. 4
Ca0109	MUT	c. 115C>G	p. Leu39Val	NM_000255. 3
Ca0109	BMP5	c. 574G>T	p. Ala192Ser	NM_021073. 2
Ca0109	ZNF292	c. 1925C>G	p. Ser642Ter	NM_015021. 1
Ca0109	REV3L	c. 7495C>T	p. Arg2499Ter	
Ca0109	MFHAS1	c. 2101C>T	p. Gln701Ter	NM_004225. 2
Ca0109	EXOSC4	c. 233C>T	p. Ser78Leu	NM_019037. 2
Ca0109	FRAT2	c. 346_383del	p. Gly116LeufsTer94	NM_012083. 2
Ca0109	PGAP2	c. 404G>A	p. Arg135His	NM_014489. 3
Ca0109	LPXN	c. 1082C>T	p. Ala361Val	NM_001143995. 1
Ca0109	TM7SF2	c. 1223G>A	p. Arg408His	NM_003273. 3
Ca0109	MRE11A	c. 1298T>G	p. Val1433Gly	NM_005591. 3
Ca0109	CWF19L2	c. 856C>T	p. Arg286Trp	NM_152434. 2
Ca0109	ACVRL1	c. 1231C>T	p. Arg411Trp	NM_000020. 2
Ca0109	RPH3A	c. 700C>T	p. Arg234Cys	NM_001143854. 1, NM_014954. 3
Ca0109	MMP17	c. 1356G>A	p. Trp452Ter	NM_016155. 4
Ca0109	PRKCH	c. 1777C>G	p. Pro593Ala	NM_006255. 3
Ca0109	APBA2	c. 1425G>T	p. Met475Ile	
Ca0109	APBA2	c. 1430G>T	p. Arg477Leu	
Ca0109	TIPIN	c. 463G>T	p. Val1155Phe	NM_017858. 2
Ca0109	MEIOB	c. 1163C>T	p. Thr388Ile	NM_001163560. 2
Ca0109	SNX20	c. 697G>A	p. Val1233Met	NM_182854. 2
Ca0109	HYDIN	c. 11524G>A	p. Glu3842Lys	NM_001270974. 1
Ca0109	HYDIN	c. 11506G>C	p. Glu3836Gln	NM_001270974. 1

Ca0109	TP53	c. 487T>C	p. Tyr163His	NM_001126112. 2, NM_001276761. 1, NM_001276760. 1, NM_000546. 5, NM_001126118. 1
Ca0109	PTGES3L- AARSD1	c. 688G>A	p. Gly230Arg	NM_001136042. 2
Ca0109	CCDC57	c. 350A>T	p. Gln117Leu	
Ca0109	TECR	c. 404C>T	p. Ser135Leu	NM_138501. 5
Ca0109	WDR87	c. 2099C>T	p. Ala700Val	NM_031951. 3
Ca0109	PLEKHG2	c. 3545C>T	p. Pro1182Leu	NM_022835. 2
Ca0109	PAX1	c. 511C>T	p. Arg171Cys	NM_006192. 4, NM_001257096. 1
Ca0109	PHF20	c. 3018del	p. Ile1006MetfsTer33	
Ca0109	RBM10	c. 2311_2323del	p. Lys771SerfsTer27	NM_001204468. 1, NM_001204467. 1, NM_005676. 4
Ca0109	HUWE1	c. 11992C>T	p. Arg3998Cys	
Ca0109	MED12	c. 6151C>T	p. Gln2051Ter	
Ca0109	ATRX	c. 6178G>C	p. Glu2060Gln	NM_000489. 3
Ca0109	MID2	c. 1874_1875delinsTT	p. Trp625Phe	NM_052817. 2, NM_012216. 3
Ca0010	TRIM43	c. 1066A>G	p. Asn356Asp	NM_138800. 1, NM_001164464. 1
Ca0010	HDAC11	c. 510_514del	p. Glu170AspfsTer8	NM_024827. 3
Ca0010	DBR1	c. 1623_1625del	p. Asp542del	NM_016216. 3
Ca0010	ATOH1	c. 104C>A	p. Pro356Gln	NM_005172. 1
Ca0010	TUBB	c. 1282G>A	p. Ala428Thr	NM_178014. 2
Ca0010	ZNF292	c. 3016G>A	p. Val1006Ile	NM_015021. 1
Ca0010	TRIM50	c. 1067G>C	p. Gly356Ala	NM_001281450. 1, NM_178125. 3
Ca0010	FOXP2	c. 673-1G>C		NM_014491. 3, NM_148898. 3, NM_001172766. 2
Ca0010	TRIM24	c. 731G>T	p. Arg244Leu	
Ca0010	DLC1	c. 2222G>C	p. Ser741Thr	NM_182643. 2
Ca0010	FUT10	c. 953A>G	p. Asn318Ser	NM_032664. 3
Ca0010	HKDC1	c. 1682T>C	p. Ile561Thr	NM_025130. 3
Ca0010	TTC40	c. 5068G>T	p. Glu1690Ter	NM_001200049. 2
Ca0010	SMPD1	c. 107_130del	p. Val136_Leu43del	NM_001007593. 2, NM_000543. 4
Ca0010	CORO1B	c. 797C>T	p. Ser266Leu	NM_001018070. 2
Ca0010	FAT3	c. 5679_5680delinsCA	p. Leu1894Ile	
Ca0010	CAPS2	c. 581C>T	p. Ala194Val	NM_032606. 3
Ca0010	ZIC5	c. 1229C>T	p. Pro410Leu	NM_033132. 3
Ca0010	GAS6	c. 1087G>A	p. Gly363Ser	NM_000820. 2
Ca0010	HERC2	c. 7231_7245del	p. Cys2411_Ala2415del	NM_004667. 5
Ca0010	ITFG3	c. 470_472del	p. Val157del	NM_001284497. 1
Ca0010	ATXN2L	c. 2860C>A	p. Pro954Thr	NM_148414. 2
Ca0010	C16orf95	c. 679C>T	p. Pro227Ser	NM_001195124. 1
Ca0010	KRT23	c. 949G>A	p. Glu317Lys	NM_015515. 3
Ca0010	MKS1	c. 1627C>T	p. Arg543Trp	NM_017777. 3
Ca0010	SERPINB2	c. 256C>A	p. Gln86Lys	NM_001143818. 1
Ca0010	SIRPB1	c. 392_393del	p. Val131GlyfsTer3	NM_006065. 3
Ca0010	SIRPB1	c. 388del	p. Asp130ThrfsTer28	NM_006065. 3

Ca0010	CECR2	c. 1427G>A	p. Ser476Asn	NM_031413.3
Ca0010	MED14	c. 652G>A	p. Ala218Thr	NM_004229.3
Ca0011	CYP4A11	c. 959T>C	p. Phe320Ser	NM_000778.3
Ca0011	RAB3GAP2	c. 701A>T	p. Gln234Leu	NM_012414.3
Ca0011	PXDN	c. 3487C>T	p. Arg1163Trp	NM_012293.1
Ca0011	DDX1	c. 904A>C	p. Thr302Pro	
Ca0011	FHL5	c. 400C>T	p. Arg134Ter	NM_020482.4
Ca0011	TFEC	c. 10G>A	p. Ala4Thr	
Ca0011	TRPM3	c. 1895T>A	p. Phe632Tyr	
Ca0011	CUBN	c. 10820A>T	p. His3607Leu	NM_001081.3
Ca0011	FAM35A	c. 727C>T	p. Leu243Phe	NM_019054.2
Ca0011	RRAS2	c. 215A>T	p. Gln72Leu	
Ca0011	SAA2	c. 304A>G	p. Lys102Glu	
Ca0011	KRTAP5-10	c. 48_68del	p. Cys24_Gly30del	NM_001012710.1
Ca0011	OR10G8	c. 344_345delinsCA	p. Arg115Thr	NM_001004464.1
Ca0011	OR10G7	c. 166C>A	p. Pro56Thr	NM_001004463.1
Ca0011	TSC22D1	c. 2357A>T	p. Gln786Leu	NM_183422.3
Ca0011	LONP2	c. 1409A>G	p. Asn470Ser	NM_031490.2
Ca0011	CYBA	c. 521_523del	p. Val174del	NM_000101.3
Ca0011	ZNF335	c. 2660C>T	p. Pro887Leu	NM_022095.3
Ca0011	KRTAP10-5	c. 97A>G	p. Thr33Ala	NM_198694.2
Ca0011	TNRC6B	c. 3946A>G	p. Met1316Val	NM_001162501.1
Ca0011	RBM10	c. 2225del	p. Gln742ArgfsTer60	NM_001204468.1, NM_001204467.1, NM_005676.4
Ca0011	CSAG1	c. 138T>G	p. Phe46Leu	NM_153478.1
Ca0111	AGMAT	c. 313_314delinsCA	p. Gly105Gln	NM_024758.4
Ca0111	ZMYM6	c. 94-2del		NM_007167.3
Ca0111	SLC4A3	c. 469dup	p. His157ProfsTer15	NM_005070.3
Ca0111	MST1	c. 146_150del	p. Gln49ProfsTer18	NM_020998.3
Ca0111	PIGO	c. 2191del	p. Arg731ValfsTer17	NM_032634.3
Ca0111	DTX4	c. 1527del	p. Gly510AlafsTer35	NM_015177.1
Ca0111	RBM4	c. 866_886del	p. Ala289_Ala295del	
Ca0111	AGAP2	c. 718G>A	p. Ala240Thr	NM_001122772.2
Ca0111	TINF2	c. 1303G>A	p. Gly435Ser	NM_001099274.1
Ca0111	ARHGAP17	c. 2440del	p. Gln814AsnfsTer23	NM_001006634.1
Ca0111	MBD2	c. 471del	p. Gly158AspfsTer7	NM_003927.4
Ca0111	YJEFN3	c. 665T>C	p. Ile222Thr	NM_198537.3
Ca0111	TGFB1	c. 29_31del	p. Pro10del	NM_000660.4
Ca0111	ESX1	c. 967C>A	p. Pro323Thr	NM_153448.3
Ca0012	IFI44L	c. 854G>A	p. Gly285Asp	NM_006820.2
Ca0012	PRKACB	c. 574C>T	p. Arg192Trp	NM_182948.2, NM_001242862.1
Ca0012	VTCN1	c. 265G>C	p. Glu89Gln	NM_024626.3
Ca0012	CENPF	c. 5726C>A	p. Ser1909Ter	NM_016343.3
Ca0012	DNAH5	c. 7826C>T	p. Pro2609Leu	NM_001369.2

Ca0012	HIST1H1C	c. 214G>A	p. Asp72Asn	NM_005319. 3
Ca0012	DAXX	c. 1490T>C	p. Met497Thr	NM_001141970. 1, NM_001350. 4, NM_001141969. 1
Ca0012	EGFR	c. 2239_2247del	p. Leu747_Glu749del	NM_005228. 3
Ca0012	EGFR	c. 2248G>C	p. Ala750Pro	NM_005228. 3
Ca0012	OR2A14	c. 530T>A	p. Phe177Tyr	NM_001001659. 1
Ca0012	KRTAP5-10	c. 48_68del	p. Cys24_Gly30del	NM_001012710. 1
Ca0012	FANCM	c. 2330A>G	p. Tyr77Cys	NM_020937. 2
Ca0012	OR2Z1	c. 70C>T	p. Arg24Cys	NM_001004699. 1
Ca0112	SNIP1	c. 1168G>T	p. Glu390Ter	NM_024700. 3
Ca0112	CLCA2	c. 2144A>C	p. Tyr715Ser	NM_006536. 5
Ca0112	NPR1	c. 986T>A	p. Leu329Ter	NM_000906. 3
Ca0112	ATP1B1	c. 64_66del	p. Lys22del	
Ca0112	CENPF	c. 6305A>T	p. Glu2102Val	NM_016343. 3
Ca0112	OR2M3	c. 112G>T	p. Ala38Ser	NM_001004689. 1
Ca0112	DTNB	c. 262A>G	p. Ile88Val	NM_001256303. 1, NM_021907. 4
Ca0112	VPS54	c. 1742T>G	p. Val581Gly	
Ca0112	REG1B	c. 163G>T	p. Glu55Ter	NM_006507. 3
Ca0112	WIPF1	c. 1481G>A	p. Gly494Asp	NM_003387. 4
Ca0112	C2orf57	c. 1105G>A	p. Val369Met	NM_152614. 2
Ca0112	ITPR1	c. 4819G>A	p. Asp1607Asn	NM_001168272. 1
Ca0112	CTNNB1	c. 110C>T	p. Ser37Phe	NM_001904. 3
Ca0112	IDUA	c. 1666G>T	p. Ala556Ser	NM_000203. 3
Ca0112	DCHS2	c. 1855C>T	p. Arg619Trp	NM_001142552. 1
Ca0112	NSUN2	c. 608A>G	p. Asn203Ser	NM_017755. 5
Ca0112	KIFC1	c. 1783A>G	p. Ser595Gly	NM_002263. 3
Ca0112	GTF3C6	c. 407G>A	p. Arg136Gln	NM_138408. 3
Ca0112	GPR126	c. 3449_3451del	p. Ile1150del	NM_198569. 2
Ca0112	ZPBP	c. 161G>A	p. Arg54His	NM_007009. 2, NM_001159878. 1
Ca0112	EGFR	c. 2235_2249del	p. Glu746_Ala750del	NM_005228. 3
Ca0112	ORC5	c. 1265C>T	p. Thr422Met	NM_002553. 3
Ca0112	PTPRZ1	c. 4900G>A	p. Glu1634Lys	NM_001206838. 1, NM_002851. 2
Ca0112	COL5A1	c. 2236C>T	p. Pro746Ser	NM_001278074. 1, NM_000093. 4
Ca0112	AKR1C1	c. 277G>A	p. Glu93Lys	NM_001353. 5
Ca0112	ITIH2	c. 2003C>A	p. Ser668Tyr	NM_002216. 2
Ca0112	CDH23	c. 2317G>A	p. Val1773Met	NM_001171933. 1, NM_001171934. 1
Ca0112	OR2D3	c. 14dup	p. Cys7ValfsTer5	NM_001004684. 1
Ca0112	OR5M3	c. 262_265dup	p. Thr89LysfsTer32	NM_001004742. 2
Ca0112	FAT3	c. 4416T>A	p. Asp1472Glu	
Ca0112	FGFR10P2	c. 713_725del	p. Ser238Ter	NM_015633. 2
Ca0112	SLC25A15	c. 686C>T	p. Pro229Leu	NM_014252. 3
Ca0112	ZIC2	c. 109G>A	p. Asp37Asn	NM_007129. 3
Ca0112	CARS2	c. 544C>T	p. Arg182Cys	NM_024537. 2
Ca0112	CDKL1	c. 635T>C	p. Leu212Pro	NM_004196. 3

Ca0112	FLVCR2	c. 922C>G	p. Leu308Val	NM_017791.2
Ca0112	CSPG4	c. 4099G>A	p. Val1367Ile	NM_001897.4
Ca0112	POLG	c. 548A>G	p. Glu183Gly	NM_001126131.1, NM_002693.2
Ca0112	PKD1	c. 5938T>G	p. Cys1980Gly	NM_001009944.2
Ca0112	BRICD5	c. 115C>G	p. Leu39Val	NM_182563.3
Ca0112	CMTM4	c. 472T>G	p. Phe158Val	NM_181521.2, NM_178818.2
Ca0112	OR1E1	c. 113_121del	p. Thr38_Gly41delinsA Fg	NM_003553.2
Ca0112	OR1E1	c. 103_110del	p. Tyr35HisfsTer33	NM_003553.2
Ca0112	MFSD6L	c. 1639C>T	p. Arg547Ter	NM_152599.3
Ca0112	MAPT	c. 1945G>A	p. Asp649Asn	NM_001123066.3
Ca0112	PPP4R1	c. 886T>C	p. Phe296Leu	NM_001042388.2
Ca0112	MUC16	c. 39687_39688inv	p. Gly13230Arg	NM_024690.2
Ca0112	CPAMD8	c. 4123G>A	p. Ala1375Thr	NM_015692.2
Ca0112	UPF1	c. 428G>A	p. Trp143Ter	NM_002911.3
Ca0112	KIRREL2	c. 1082G>A	p. Arg361His	NM_032123.5, NM_199180.2
Ca0112	APLP1	c. 1138G>A	p. Val380Ile	NM_001024807.1, NM_005166.3
Ca0112	C20orf194	c. 751C>G	p. Pro251Ala	NM_001009984.2
Ca0112	ADAM33	c. 1982G>A	p. Gly661Glu	NM_025220.2
Ca0112	POFUT2	c. 382+2_382+6del		NM_133635.4
Ca0112	MYO18B	c. 5240G>T	p. Arg1747Leu	NM_032608.5
Ca0013	PAFAH2	c. 506G>A	p. Arg169His	NM_000437.3
Ca0013	UCK2	c. 226G>A	p. Ala76Thr	NM_012474.4
Ca0013	PROM1	c. 1355A>G	p. Tyr452Cys	
Ca0013	SMAP1	c. 1260C>G	p. Ser420Arg	NM_001281440.1, NM_001044305.2
Ca0013	AEBP1	c. 3396_3398del	p. Lys1133del	NM_001129.4
Ca0013	EGFR	c. 2239_2247del	p. Leu747_Glu749del	NM_005228.3
Ca0013	EGFR	c. 2248G>C	p. Ala750Pro	NM_005228.3
Ca0013	MAFA	c. 582_584del	p. His196del	NM_201589.3
Ca0013	DBH	c. 826G>A	p. Val1276Ile	NM_000787.3
Ca0013	TCERG1L	c. 1078C>G	p. Pro360Ala	NM_174937.3
Ca0013	AP2A2	c. 2006del	p. Pro669LeufsTer67	NM_012305.3, NM_001242837.1
Ca0013	ASCL1	c. 114_128del	p. Ala43_Ala47del	NM_004316.3
Ca0013	SUPT20H	c. 2159del	p. Phe720SerfsTer50	NM_001014286.2
Ca0013	GIT1	c. 685C>T	p. Arg229Trp	NM_001085454.1
Ca0013	WDR7	c. 134T>C	p. Leu45Pro	NM_015285.2
Ca0013	DAZAP1	c. 763_764insGCCCCCCCCCCCCCC	p. Ala255GlyfsTer177	NM_018959.2
Ca0013	CENPB	c. -54_9del		NM_001810.5
Ca0013	C20orf144	c. 352T>C	p. Trp118Arg	NM_080825.3
Ca0013	SLC12A5	c. 2625del	p. Lys876SerfsTer19	NM_001134771.1
Ca0013	MED12	c. 5473_5512del	p. Asn1825ProfsTer2	
Ca0113	C1orf170	c. 76G>A	p. Gly26Ser	
Ca0113	PADI3	c. 1933C>A	p. His645Asn	NM_016233.2

Ca0113	CD164L2	c. 439G>A	p. Val147Met	NM_207397.2
Ca0113	PIK3C2B	c. 1039C>T	p. Arg347Ter	NM_002646.3
Ca0113	RBM34	c. 1126C>T	p. Arg376Ter	
Ca0113	HNRNPU	c. 20A>G	p. Asn7Ser	
Ca0113	APOB	c. 13540A>C	p. Ile4514Leu	NM_000384.2
Ca0113	A4GNT	c. 551C>T	p. Ala184Val	NM_016161.2
Ca0113	FGFR3	c. 2266G>A	p. Val756Met	NM_001163213.1
Ca0113	PAPD4	c. 1235G>A	p. Arg412His	NM_001114394.1
Ca0113	R1OK1	c. 1333G>C	p. Asp445His	NM_031480.2, NM_153005.1
Ca0113	HSPA1L	c. 1606del	p. Glu536ArgfsTer9	NM_005527.3
Ca0113	CFB	c. 1624+1del		NM_001710.5
Ca0113	AARS2	c. 1691T>G	p. Phe564Cys	NM_020745.3
Ca0113	PMS2	c. 379G>A	p. Ala127Thr	NM_000535.5
Ca0113	EGFR	c. 2500G>T	p. Val1834Leu	NM_005228.3
Ca0113	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0113	FBP2	c. 263C>T	p. Ser88Phe	NM_003837.2
Ca0113	ARID5B	c. 2354G>A	p. Arg785His	NM_032199.2
Ca0113	TRIM51	c. 612G>C	p. Glu204Asp	NM_032681.3
Ca0113	CTC1	c. 983_984del	p. Glu328GlyfsTer2	NM_025099.5
Ca0113	PSG7	c. 1067C>T	p. Ala356Val	NM_002783.2
Ca0113	PSG7	c. 367C>A	p. His123Asn	NM_002783.2
Ca0113	CHGB	c. 506A>G	p. Glu169Gly	NM_001819.2
Ca0113	POTEH	c. 112A>G	p. Ser38Gly	NM_001136213.1
Ca0113	UBA1	c. 2347G>T	p. Asp783Tyr	NM_003334.3
Ca0015	C1orf86	c. 335A>C	p. Glu112Ala	NM_182533.2
Ca0015	SETD5	c. 1819C>T	p. Pro607Ser	NM_001080517.1
Ca0015	SETD5	c. 1928dup	p. Leu643PhefsTer12	NM_001080517.1
Ca0015	FBN2	c. 7943A>G	p. Gln2648Arg	
Ca0015	TCERG1	c. 2871G>C	p. Lys957Asn	NM_006706.3
Ca0015	RPL10A	c. 19C>G	p. Arg7Gly	NM_007104.4
Ca0015	SHB	c. 433_452del	p. Gly145LeufsTer94	NM_003028.2
Ca0015	PLCE1	c. 6005T>C	p. Met2002Thr	
Ca0015	OR5D18	c. 703C>T	p. Arg235Cys	NM_001001952.1
Ca0015	PLBD1	c. 77_79del	p. Pro26del	NM_024829.5
Ca0015	H1FNT	c. 15G>C	p. Leu5Phe	NM_181788.1
Ca0015	KRT83	c. 113G>A	p. Arg38His	NM_002282.3
Ca0015	ACADS	c. 50T>C	p. Leu17Pro	NM_000017.2
Ca0015	NBEA	c. 5698C>T	p. Arg1900Cys	NM_015678.4
Ca0015	CYP11A1	c. 404G>A	p. Arg135Gln	
Ca0015	SEPHS2	c. 290C>T	p. Ser97Phe	
Ca0015	ZNF287	c. 1869T>G	p. Ser623Arg	
Ca0015	HDAC5	c. 1226G>A	p. Arg409Gln	
Ca0015	KANK2	c. 2161C>G	p. Leu721Val	NM_001136191.2

Ca0015	RYR1	c. 12949G>A	p. Val14317Met	
Ca0015	MYO18B	c. 6434G>A	p. Arg2145Gln	NM_032608.5
Ca0015	FBLN1	c. 1333T>G	p. Cys445Gly	NM_006486.2
Ca0015	IRS4	c. 63_65del	p. Ala25del	NM_003604.2
Ca0017	RIMS3	c. 250C>T	p. Arg84Cys	NM_014747.2
Ca0017	CRB1	c. 4190T>A	p. Met1397Lys	NM_201253.2
Ca0017	TMEM183A	c. 449T>C	p. Ile150Thr	NM_138391.4, NM_001079809.1
Ca0017	USH2A	c. 10228A>C	p. Thr3410Pro	NM_206933.2
Ca0017	ATP6V1E2	c. 514T>C	p. Tyr172His	NM_080653.3
Ca0017	UGT2A1	c. 1618G>A	p. Gly540Arg	NM_001252274.1
Ca0017	UTP3	c. 334G>A	p. Gly112Arg	NM_020368.2
Ca0017	ANK2	c. 9991T>C	p. Ser3331Pro	NM_001148.4
Ca0017	KIAA0825	c. 1544A>G	p. Asn515Ser	
Ca0017	KDM3B	c. 1058A>G	p. Asn353Ser	NM_016604.3
Ca0017	JAKMIP2	c. 787C>T	p. Arg263Ter	NM_014790.4, NM_001270941.1
Ca0017	ANXA6	c. 881G>A	p. Arg294Gln	NM_001155.4
Ca0017	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0017	FOXP2	c. 14C>A	p. Ser5Tyr	NM_014491.3, NM_148898.3, NM_001172766.2
Ca0017	ANGPT2	c. 113A>T	p. His38Leu	
Ca0017	SNAPC4	c. 1358A>G	p. Lys453Arg	NM_003086.2
Ca0017	TRAF2	c. 492del	p. His165IlefsTer11	NM_021138.3
Ca0017	CXCL12	c. 90C>G	p. Cys30Trp	NM_001178134.1
Ca0017	CSNK2A3	c. 547C>T	p. His183Tyr	NM_001256686.1
Ca0017	TRIM49B	c. 443G>T	p. Trp148Leu	NM_001206626.1
Ca0017	KLRF1	c. 478-2A>T		NM_016523.1
Ca0017	PTPRB	c. 558G>T	p. Arg186Ser	NM_001109754.2
Ca0017	NLRC3	c. 994G>A	p. Glu332Lys	
Ca0017	RPTOR	c. 555G>A	p. Trp185Ter	NM_020761.2
Ca0017	EP300	c. 5543C>T	p. Pro1848Leu	NM_001429.3
Ca0117	TTC34	c. 602T>G	p. Phe201Cys	NM_001242672.1
Ca0117	TPRG1L	c. 106_115del	p. Pro366GlyfsTer97	NM_182752.3
Ca0117	TMEM69	c. 110C>T	p. Ser37Phe	NM_016486.3
Ca0117	HFM1	c. 3988C>T	p. His1330Tyr	NM_001017975.3
Ca0117	WNT9A	c. 691C>T	p. Arg231Trp	NM_003395.2
Ca0117	DCDC2C	c. 715G>T	p. Ala239Ser	NM_001287444.1
Ca0117	LRRTM1	c. 1360C>T	p. Pro454Ser	NM_178839.4
Ca0117	B3GALT1	c. 100G>T	p. Gly34Cys	
Ca0117	SF3B1	c. 3598T>C	p. Tyr1200His	NM_012433.2
Ca0117	COQ2	c. 93_108del	p. Ala326IufsTer2	NM_015697.7
Ca0117	STK32A	c. 784G>A	p. Glu262Lys	NM_001112724.1
Ca0117	KHDRBS2	c. 743G>T	p. Arg248Leu	NM_152688.2
Ca0117	EYS	c. 2259+1G>A		NM_001142800.1
Ca0117	PDE10A	c. 485del	p. Ser162LeufsTer12	NM_001130690.2

Ca0117	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228. 3
Ca0117	HGF	c. 134C>T	p. Ser45Leu	NM_000601. 4
Ca0117	PLO	c. 10460G>T	p. Arg3487Ile	NM_033026. 5
Ca0117	MUC17	c. 8024C>A	p. Thr2675Lys	NM_001040105. 1
Ca0117	PRKDC	c. 4391A>T	p. His1464Leu	NM_006904. 6
Ca0117	TGS1	c. 1031G>T	p. Gly344Val	NM_024831. 6
Ca0117	LYN	c. 1065G>T	p. Met355Ile	NM_002350. 3
Ca0117	VPS13B	c. 11678A>C	p. Glu3893Ala	NM_017890. 4
Ca0117	FAM135B	c. 3682C>A	p. Leu1228Ile	NM_015912. 3
Ca0117	DENND3	c. 470G>T	p. Ser157Ile	NM_014957. 2
Ca0117	OR4A16	c. 546G>T	p. Leu182Phe	NM_001005274. 1
Ca0117	ANO1	c. 2669G>A	p. Arg890Gln	NM_018043. 5
Ca0117	PIK3C2G	c. 2381+2T>C		NM_004570. 4
Ca0117	MYH7	c. 5690G>A	p. Arg1897His	NM_000257. 2
Ca0117	RHOV	c. 238del	p. Arg80AlafsTer68	NM_133639. 3
Ca0117	RAB34	c. 167G>T	p. Gly56Val	NM_001144943. 1, NM_001142624. 2
Ca0117	FBL	c. 404G>A	p. Arg135Gln	NM_001436. 3
Ca0117	KIF16B	c. 2246dup	p. Arg750GlufsTer64	NM_001199866. 1
Ca0117	KIF16B	c. 2239G>C	p. Glu747Gln	NM_001199866. 1
Ca0117	HNF4A	c. 1414G>A	p. Glu472Lys	NM_001258355. 1, NM_178849. 2, NM_000457. 4, NM_001287183. 1
Ca0117	TCEAL5	c. 548G>T	p. Gly183Val	NM_001012979. 2
Ca0018	RNF207	c. 252C>A	p. Phe84Leu	NM_207396. 2
Ca0018	OR10T2	c. 395G>C	p. Arg132Thr	NM_001004475. 1
Ca0018	TMEM206	c. 170C>T	p. Ser57Phe	NM_001198862. 1
Ca0018	YWHAQ	c. 329C>G	p. Thr110Ser	
Ca0018	DTNB	c. 988C>T	p. Leu330Phe	NM_001256303. 1, NM_021907. 4
Ca0018	GTF3C2	c. 1960A>T	p. Lys654Ter	
Ca0018	DNAH6	c. 4618C>G	p. Gln1540Glu	NM_001370. 1
Ca0018	PARP9	c. 2435A>G	p. Gln812Arg	NM_001146102. 1, NM_031458. 2
Ca0018	MCIDAS	c. 929C>T	p. Ala310Val	NM_001190787. 1
Ca0018	EGFR	c. 2235_2249del	p. Glu746_Ala750del	NM_005228. 3
Ca0018	TAF6	c. 323T>C	p. Ile108Thr	NM_001190415. 1
Ca0018	CCDC166	c. 102_103delinsTT	p. Gln35Ter	NM_001162914. 1
Ca0018	SPATC1	c. 251G>A	p. Arg84Gln	NM_198572. 2
Ca0018	MGRPX4	c. 136G>A	p. Ala46Thr	NM_054032. 3
Ca0018	FZD4	c. 379C>T	p. Arg127Cys	NM_012193. 3
Ca0018	KIAA1377	c. 1669G>A	p. Gly557Ser	NM_020802. 2
Ca0018	SLC6A15	c. 1583C>A	p. Ser528Tyr	NM_182767. 5
Ca0018	CLDN10	c. 142T>C	p. Trp48Arg	NM_182848. 3, NM_001160100. 1
Ca0018	DENND4A	c. 802-1G>A		NM_001144823. 1
Ca0018	CES5A	c. 1462C>T	p. Arg488Cys	NM_001190158. 1
Ca0018	MTMR4	c. 116G>T	p. Gly39Val	NM_004687. 4



Ca0018	KIF19	c. 2180C>A	p. Thr727Asn	NM_153209.3
Ca0018	MAMSTR	c. 698_704del	p. Leu233ProfsTer44	
Ca0019	Clorf170	c. 1802C>T	p. Ala601Val	
Ca0019	NOL9	c. 1193A>G	p. Lys398Arg	NM_024654.4
Ca0019	H6PD	c. 428C>T	p. Ser143Leu	NM_004285.3, NM_001282587.1
Ca0019	TEKT2	c. 707C>T	p. Ala236Val	NM_014466.2
Ca0019	SLC6A19	c. 1437G>T	p. Gln479His	NM_001003841.2
Ca0019	ATP6AP1L	c. 431C>T	p. Ser144Phe	
Ca0019	RANBP9	c. 29C>A	p. Pro106Gln	NM_005493.2
Ca0019	LRRC16A	c. 739C>T	p. Arg247Ter	NM_001173977.1, NM_017640.5
Ca0019	ZFP57	c. 400G>A	p. Glu134Lys	NM_001109809.2
Ca0019	COL10A1	c. 1621A>G	p. Ser541Gly	
Ca0019	NKAIN2	c. 71G>C	p. Arg24Thr	NM_001040214.1
Ca0019	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0019	TMEM249	c. 635G>A	p. Gly212Asp	NM_001252402.2, NM_001280561.1
Ca0019	TUBB4B	c. 1274dup	p. Tyr425Ter	NM_006088.5
Ca0019	ITIH2	c. 1909G>A	p. Glu637Lys	NM_002216.2
Ca0019	DCAF5	c. 464A>C	p. Asp155Ala	NM_003861.2, NM_001284207.1
Ca0019	PLA2G4F	c. 383T>A	p. Leu128His	
Ca0019	LYSMD4	c. 498A>C	p. Gln166His	NM_152449.2, NM_001284419.1
Ca0019	PCSK2	c. 82C>T	p. Pro28Ser	NM_002594.3
Ca0019	UPB1	c. 299T>C	p. Ile100Thr	NM_016327.2
Ca0019	PIWIL3	c. 1154A>G	p. Lys385Arg	NM_001255975.1, NM_001008496.3
Ca0019	SMC1B	c. 1047T>A	p. Ser349Arg	NM_148674.3
Ca0019	STAG2	c. 2985A>C	p. Leu995Phe	NM_001042749.1
Ca0020	ELTD1	c. 945C>A	p. Phe315Leu	NM_022159.3
Ca0020	TCHHL1	c. 1493G>A	p. Arg498Lys	NM_001008536.1
Ca0020	FCRL4	c. 1301G>A	p. Gly434Glu	NM_031282.2
Ca0020	CRB1	c. 2696G>A	p. Gly899Glu	NM_201253.2
Ca0020	TMEM183A	c. 15_20del	p. Gly6_Pro7del	NM_138391.4, NM_001079809.1
Ca0020	RYR2	c. 6652C>A	p. Leu2218Ile	NM_001035.2
Ca0020	OR2L2	c. 174G>T	p. Met581Ile	NM_001004686.2
Ca0020	OR2L2	c. 745T>A	p. Phe249Ile	NM_001004686.2
Ca0020	OR2M7	c. 939A>C	p. Ter313CysxtTer4	NM_001004691.1
Ca0020	MYT1L	c. 1559C>A	p. Pro520Gln	
Ca0020	THADA	c. 22G>A	p. Glu8Lys	NM_001083953.1
Ca0020	LRRTM4	c. 83C>T	p. Thr28Met	
Ca0020	SCN9A	c. 5261T>C	p. Val1754Ala	NM_002977.3
Ca0020	ZNF804A	c. 2242A>T	p. Met748Leu	NM_194250.1
Ca0020	ESPNL	c. 2242C>G	p. His748Asp	NM_194312.2
Ca0020	CMTM7	c. 311C>T	p. Thr104Ile	NM_138410.2
Ca0020	CTNNB1	c. 94G>T	p. Asp32Tyr	NM_001904.3
Ca0020	LRTM1	c. 491C>T	p. Ala164Val	NM_020678.2

Ca0020	LDB2	c. 1023C>A	p. Asn341Lys	NM_001290.3
Ca0020	KIAA1239	c. 4183A>C	p. Ile1395Leu	NM_001144990.1
Ca0020	TECRL	c. 1006T>A	p. Trp336Arg	NM_001010874.4
Ca0020	NAA15	c. 1495A>C	p. Asn499His	NM_057175.3
Ca0020	TPPP	c. 217G>A	p. Gly73Ser	NM_007030.2
Ca0020	BRD9	c. 1582A>G	p. Thr528Ala	NM_023924.4
Ca0020	CDH18	c. 1240A>C	p. Asn414His	
Ca0020	UGT3A1	c. 844G>T	p. Asp282Tyr	NM_152404.3
Ca0020	PCDHA2	c. 1945G>A	p. Val649Met	NM_018905.2
Ca0020	FGFR4	c. 1120G>A	p. Ala374Thr	NM_213647.1, NM_002011.3
Ca0020	HIST1H2AL	c. 292C>A	p. Leu98Met	NM_003511.2
Ca0020	CUTA	c. 530T>G	p. Phe177Cys	NM_001014433.2
Ca0020	ECT2L	c. 1706G>T	p. Arg569Ile	
Ca0020	PLEKHG1	c. 3839A>G	p. Tyr1280Cys	NM_001029884.1
Ca0020	ACTB	c. 1089_1091del	p. Asp363del	NM_001101.3
Ca0020	SP4	c. 19G>A	p. Glu7Lys	NM_003112.3
Ca0020	RAPGEF5	c. 489_491dup	p. Tyr164dup	NM_012294.3
Ca0020	EGFR	c. 2235_2249del	p. Glu746_Ala750del	NM_005228.3
Ca0020	FLNC	c. 7065C>G	p. Ser2355Arg	NM_001458.4
Ca0020	FAM86B2	c. 730G>C	p. Val244Leu	NM_001137610.1
Ca0020	REEP4	c. 634G>T	p. Ala212Ser	NM_025232.2
Ca0020	ATP6V1C1	c. 1021C>T	p. His341Tyr	NM_001695.4
Ca0020	LRP12	c. 1771G>A	p. Val591Ile	NM_013437.4
Ca0020	BSPRY	c. 49G>C	p. Gly17Arg	NM_017688.2
Ca0020	RHOBTB1	c. 1280A>T	p. Glu427Val	NM_001242359.1, NM_014836.4
Ca0020	SFTPA1	c. 734_741del	p. Asp245ValfsTer3	
Ca0020	PIK3AP1	c. 1266G>A	p. Met422Ile	NM_152309.2
Ca0020	FGFR2	c. 2196A>T	p. Glu732Asp	NM_022970.3
Ca0020	OR51F1	c. 809C>T	p. Ala270Val	NM_001004752.1
Ca0020	OR51I	c. 877A>T	p. Ser293Cys	NM_006637.1
Ca0020	GRM5	c. 1777G>A	p. Ala593Thr	
Ca0020	OR8G5	c. 158C>A	p. Thr53Lys	NM_001005198.1
Ca0020	OR8B12	c. 854A>T	p. Asn285Ile	NM_001005195.1
Ca0020	PATE1	c. 172G>C	p. Glu586In	NM_138294.2
Ca0020	GLB1L2	c. 224G>T	p. Arg75Met	NM_138342.3
Ca0020	STAB2	c. 4867G>T	p. Asp1623Tyr	NM_017564.9
Ca0020	ALDH1L2	c. 2534T>C	p. Leu845Ser	NM_001034173.3
Ca0020	FREM2	c. 7003G>C	p. Glu2335Gln	NM_207361.4
Ca0020	ERCC5	c. 1149A>G	p. Ile383Met	NM_000123.3
Ca0020	ERCC5	c. 1828G>C	p. Glu610Gln	NM_000123.3
Ca0020	OR4E2			NM_001001912.1
Ca0020	PRMT5	c. 872G>A	p. Arg291His	NM_006109.3
Ca0020	MIPOL1	c. 10T>C	p. Trp4Arg	NM_138731.6, NM_001195297.1, NM_001195296.1

Ca0020	C14orf28	c. 457_458del	p. Ser153LeufsTer20	NM_001017923. 1
Ca0020	RYR3	c. 12501_12506del	p. Lys4167_Tyr4169del insAsn	NM_001036. 3
Ca0020	SHC4	c. 1436G>T	p. Gly479Val	NM_203349. 3
Ca0020	C15orf26	c. 106G>A	p. Gly36Arg	NM_173528. 2
Ca0020	C16orf62	c. 481G>A	p. Val161Ile	NM_020314. 5
Ca0020	TMEM159	c. 466G>A	p. Glu156Lys	
Ca0020	SCNN1G	c. 779G>A	p. Cys260Tyr	NM_001039. 3
Ca0020	CHP2	c. 140+1G>T		NM_022097. 3
Ca0020	ABCA10	c. 758G>T	p. Gly253Val	NM_080282. 3
Ca0020	DSG3	c. 2386A>G	p. Lys796Glu	NM_001944. 2
Ca0020	ALPK2	c. 4261G>T	p. Glu1421Ter	NM_052947. 3
Ca0020	SOCS6	c. 614T>C	p. Leu205Pro	NM_004232. 3
Ca0020	MATK	c. 314C>T	p. Ala105Val	NM_002378. 3
Ca0020	CREB3L3	c. 833G>A	p. Cys278Tyr	NM_032607. 2, NM_001271996. 1, NM_001271997. 1, NM_001271995. 1
Ca0020	ZNF823	c. 141G>A	p. Trp47Ter	NM_001080493. 2
Ca0020	GMIP	c. 2258del	p. Tyr753SerfsTer48	NM_016573. 2
Ca0020	KMT2B	c. 4319A>T	p. Lys1440Met	NM_014727. 1
Ca0020	CARD8	c. 616_617delinsCA	p. Thr206Gln	NM_001184900. 1
Ca0020	PPF1A3	c. 3386C>T	p. Ser1129Phe	NM_003660. 3
Ca0020	ACPT	c. 58C>G	p. Leu20Val	NM_033068. 2
Ca0020	ZNF552	c. 579_580insGAG	p. Gly193_Lys194insG1 u	NM_024762. 3
Ca0020	FOXA2	c. 1203C>G	p. His401Gln	NM_021784. 4
Ca0020	DIDO1	c. 6451C>T	p. Arg2151Trp	NM_033081. 2
Ca0020	UBASH3A	c. 796G>A	p. Ala266Thr	NM_018961. 3
Ca0020	POFUT2	c. 382+2_382+6del		NM_133635. 4
Ca0020	IL3RA	c. 636C>A	p. Asn212Lys	NM_002183. 3, NM_001267713. 1
Ca0020	IRS4	c. 63_65del	p. Ala25del	NM_003604. 2
Ca0021	KLF17	c. 649G>T	p. Ala217Ser	NM_173484. 3
Ca0021	OR10G8	c. 698A>G	p. Lys233Arg	NM_001004464. 1
Ca0021	FOXN1	c. 1201_1216del	p. Pro401AlafsTer144	NM_003593. 2
Ca0021	ZNF552	c. 579_580insGAG	p. Gly193_Lys194insG1 u	NM_024762. 3
Ca0027	GIPC2	c. 602C>T	p. Ala201Val	NM_017655. 4
Ca0027	NENF	c. 250C>T	p. Arg84Ter	NM_013349. 4
Ca0027	NBAS	c. 5657_5658del	p. Arg1886ProfsTer5	NM_015909. 3
Ca0027	NBAS	c. 5652_5655del	p. Asp1885ValfsTer11	NM_015909. 3
Ca0027	MARCO	c. 397C>T	p. Arg133Trp	NM_006770. 3
Ca0027	ZNF804A	c. 2551G>T	p. Glu851Ter	NM_194250. 1
Ca0027	KIAA0232	c. 2266G>T	p. Glu756Ter	NM_014743. 2
Ca0027	MED28	c. 22A>G	p. Met8Val	NM_025205. 3

Ca0027	SH3RF1	c. 928A>G	p. Met310Val	NM_020870.3
Ca0027	FBN2	c. 1411G>A	p. Val1471Ile	
Ca0027	PCDHB4	c. 704A>C	p. Asn235Thr	NM_018938.2
Ca0027	GRIA1	c. 1394G>A	p. Arg465His	NM_001258021.1
Ca0027	RANBP9	c. 1687A>T	p. Met563Leu	NM_005493.2
Ca0027	SYNGAP1	c. 3395C>T	p. Ser1132Phe	NM_006772.2
Ca0027	EGFR	c. 2126A>G	p. Glu709Gly	NM_005228.3
Ca0027	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0027	RBM48	c. 335dup	p. Phe113LeufsTer14	NM_032120.2
Ca0027	RBM48	c. 1063G>A	p. Val355Ile	NM_032120.2
Ca0027	CYP3A5	c. 341T>A	p. Met114Lys	NM_000777.3
Ca0027	PAX4	c. 829A>G	p. Thr277Ala	NM_006193.2
Ca0027	VPS13B	c. 3040T>G	p. Ser1014Ala	NM_017890.4
Ca0027	CSMD3	c. 4695A>T	p. Arg1565Ser	NM_198123.1
Ca0027	PLAA	c. 935C>T	p. Ala312Val	NM_001031689.2
Ca0027	SETX	c. 542T>C	p. Val181Ala	NM_015046.5
Ca0027	STIM1	c. 1033G>A	p. Glu345Lys	NM_003156.3, NM_001277961.1, NM_001277962.1
Ca0027	KIAA1377	c. 203G>A	p. Arg68Gln	NM_020802.2
Ca0027	ACACB	c. 967_974del	p. Gly323Ter	
Ca0027	RNF31	c. 2060A>G	p. Asp687Gly	NM_017999.4
Ca0027	NLRC5	c. 5081+1G>A		NM_032206.4
Ca0027	SLC13A5	c. 680C>T	p. Thr227Met	NM_177550.3
Ca0027	ZNF99	c. 1574G>T	p. Arg525Ile	NM_001080409.2
Ca0027	MORC4	c. 398G>A	p. Gly133Glu	NM_001085354.2, NM_024657.4
Ca0030	IVL	c. 803A>T	p. His268Leu	
Ca0030	CCDC181	c. 602T>A	p. Leu201His	
Ca0030	NRXN1	c. 2933T>A	p. Leu978Gln	NM_001135659.1
Ca0030	ZAP70	c. 1541G>A	p. Arg514His	NM_001079.3
Ca0030	SP3	c. 1778A>G	p. Lys593Arg	NM_001172712.1, NM_003111.4
Ca0030	USP40	c. 1997G>T	p. Gly666Val	NM_018218.2
Ca0030	CELSR3	c. 4552C>T	p. Arg1518Cys	NM_001407.2
Ca0030	BSN	c. 8581G>A	p. Glu2861Lys	NM_003458.3
Ca0030	CPNE4	c. 955G>A	p. Gly319Arg	
Ca0030	WDFY3	c. 5837A>G	p. Asn1946Ser	NM_014991.4
Ca0030	SPOCK1	c. 1186G>A	p. Asp396Asn	NM_004598.3
Ca0030	PCDHGA5	c. 1718C>T	p. Thr573Met	NM_018918.2, NM_032054.1
Ca0030	UNC5A	c. 1220G>A	p. Arg407His	NM_133369.2
Ca0030	DNAH8	c. 6529G>A	p. Asp2177Asn	
Ca0030	PKHD1	c. 8794A>G	p. Ile2932Val	NM_138694.3
Ca0030	PTP4A1	c. 209T>C	p. Phe70Ser	NM_003463.4
Ca0030	ZNF292	c. 1021-2A>T		NM_015021.1
Ca0030	HECW1	c. 1670G>A	p. Arg557Gln	NM_015052.3
Ca0030	EGFR	c. 2235_2249del	p. Glu746_Ala750del	NM_005228.3

Ca0030	SAMD9	c. 1619del	p. Leu540TrpfsTer55	NM_017654.3, NM_001193307.1
Ca0030	PPP1R26	c. 1381C>T	p. Pro461Ser	NM_014811.3
Ca0030	WDFY4	c. 1252C>T	p. Arg418Ter	NM_020945.1
Ca0030	MXI1	c. 23G>T	p. Arg8Leu	NM_130439.3
Ca0030	ALDH3B1	c. 1337C>T	p. Pro446Leu	NM_001161473.1
Ca0030	OPCML	c. 623T>A	p. Val208Asp	NM_002545.3
Ca0030	CAPRIN2	c. 2108C>T	p. Ser703Phe	NM_023925.3
Ca0030	PDZRN4	c. 1678G>A	p. Glu560Lys	NM_001164595.1
Ca0030	PRDM4	c. 1753A>T	p. Ser585Cys	NM_012406.3
Ca0030	DACH1	c. 1955G>A	p. Arg652Gln	NM_080759.4
Ca0030	TEP1	c. 2380A>C	p. Ile794Leu	NM_007110.4
Ca0030	CTC1	c. 1478_1479del insCG	p. Gln493Pro	NM_025099.5
Ca0030	FBF1	c. 3131G>A	p. Arg1044Gln	NM_001080542.1
Ca0030	SLC25A41	c. 380C>T	p. Thr127Met	NM_173637.3
Ca0030	KLK8	c. 856G>A	p. Val286Ile	
Ca0030	XK	c. 1042G>T	p. Ala348Ser	NM_021083.2
Ca0030	MED12	c. 2699T>C	p. Leu900Pro	
Ca0030	HNRNPH2	c. 1064G>C	p. Arg355Thr	NM_001199974.1, NM_001199973.1, NM_019597.4, NM_001032393.2
Ca0030	PLS3	c. 1483T>G	p. Leu495Val	NM_001136025.3, NM_001172335.1
Ca0030	GPR112	c. 3710A>G	p. Tyr1237Cys	NM_153834.3
Ca0031	TAS1R2	c. 2114C>T	p. Thr705Ile	NM_152232.2
Ca0031	PTGS2	c. 775A>C	p. Met259Leu	NM_000963.2
Ca0031	CDCA7	c. 125C>T	p. Ala42Val	NM_031942.4
Ca0031	EOMES	c. 1981G>A	p. Glu661Lys	NM_005442.3, NM_001278182.1
Ca0031	TOPBP1	c. 821G>T	p. Gly274Val	NM_007027.3
Ca0031	DGKQ	c. 1408C>T	p. Arg470Trp	NM_001347.3
Ca0031	IDUA	c. 1417A>G	p. Thr473Ala	NM_000203.3
Ca0031	PDHA2	c. 44A>T	p. Gln15Leu	NM_005390.4
Ca0031	ZBTB2	c. 1498G>A	p. Val500Met	NM_020861.1
Ca0031	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0031	ATG9B	c. 1102C>A	p. Gln368Lys	
Ca0031	EAPP	c. 242C>T	p. Ser81Phe	NM_018453.3
Ca0031	VSX2	c. 286G>T	p. Val96Leu	NM_182894.2
Ca0031	RYR3	c. 12501_12506del	p. Lys4167_Tyr4169del insAsn	NM_001036.3
Ca0031	ZNF106	c. 4187_4188dup	p. Thr1397Ter	NM_022473.1
Ca0031	C15orf39	c. 919C>G	p. Leu307Val	
Ca0031	NUFIP2	c. 2006T>C	p. Met669Thr	NM_020772.2
Ca0031	STARD3	c. 692del	p. Phe231SerfsTer55	NM_006804.3, NM_001165937.1
Ca0031	SCN4A	c. 4398G>T	p. Lys1466Asn	NM_000334.4
Ca0031	NMRK2	c. 340T>A	p. Tyr114Asn	NM_170678.2
Ca0031	NXT1	c. 35A>C	p. Gln12Pro	NM_013248.2

<b>Ca0031</b>	IGSF5	c. 845C>G	p. Thr282Ser	NM_001080444. 1
<b>Ca0031</b>	MXRA5	c. 5839G>A	p. Val1947Met	NM_015419. 3
<b>Ca0031</b>	FAM47A	c. 1651C>T	p. Arg551Cys	NM_203408. 3
<b>Ca0031</b>	ZNF182	c. 1473T>A	p. Cys491Ter	NM_001178099. 1
<b>Ca0032</b>	CEP104	c. 150G>C	p. Met501Ile	NM_014704. 3
<b>Ca0032</b>	CAMTA1	c. 4667G>C	p. Arg1556Pro	NM_015215. 2
<b>Ca0032</b>	EIF2D	c. 374C>G	p. Pro125Arg	NM_006893. 2
<b>Ca0032</b>	ITSN2	c. 2311del	p. Arg771GlyfsTer6	NM_006277. 2
<b>Ca0032</b>	TRIP12	c. 2973C>G	p. Ser991Arg	NM_004238. 1
<b>Ca0032</b>	UGT1A1	c. 513C>A	p. Phe171Leu	NM_000463. 2
<b>Ca0032</b>	FGD5	c. 2086G>T	p. Asp696Tyr	NM_152536. 3
<b>Ca0032</b>	NPHP3	c. 2851C>T	p. Arg951Ter	NM_153240. 4
<b>Ca0032</b>	PLD1	c. 885T>A	p. Tyr295Ter	NM_002662. 4
<b>Ca0032</b>	CHRD	c. 1444G>A	p. Val482Met	NM_003741. 2
<b>Ca0032</b>	EPHB3	c. 1136A>G	p. Lys379Arg	NM_004443. 3
<b>Ca0032</b>	TBC1D19	c. 1126C>T	p. Leu376Phe	NM_018317. 2
<b>Ca0032</b>	ANKHD1	c. 3035A>G	p. Asn1012Ser	NM_020690. 5
<b>Ca0032</b>	PON1	c. 640C>T	p. Arg214Ter	NM_000446. 5
<b>Ca0032</b>	TAS2R4	c. 373A>G	p. Ile125Val	NM_016944. 1
<b>Ca0032</b>	STC1	c. 693_697del	p. Glu232GlyfsTer12	NM_003155. 2
<b>Ca0032</b>	PRUNE2	c. 3943C>T	p. Pro1315Ser	NM_015225. 2
<b>Ca0032</b>	TUBB8	c. 85G>A	p. Ala29Thr	NM_177987. 2
<b>Ca0032</b>	ARHGAP21	c. 5663C>T	p. Thr1888Ile	NM_020824. 3
<b>Ca0032</b>	ZNF503	c. 316-1G>T		NM_032772. 4
<b>Ca0032</b>	DEAF1	c. 69_98del	p. Ala24_Ala33del	NM_021008. 2
<b>Ca0032</b>	MUC2	c. 7295G>T	p. Gly2432Val	NM_002457. 2
<b>Ca0032</b>	SIAE	c. 11C>T	p. Pro4Leu	
<b>Ca0032</b>	DDX55	c. 932T>C	p. Phe311Ser	NM_020936. 1
<b>Ca0032</b>	ISLR	c. 985G>T	p. Ala329Ser	NM_005545. 3
<b>Ca0032</b>	TSKS	c. 1121G>A	p. Arg374His	NM_021733. 1
<b>Ca0032</b>	ITPA	c. 470C>T	p. Pro157Leu	NM_181493. 2, NM_033453. 3
<b>Ca0032</b>	TMPRSS2	c. 1263G>A	p. Trp421Ter	NM_001135099. 1
<b>Ca0032</b>	KRTAP10-12	c. 316G>A	p. Val106Met	NM_198699. 1
<b>Ca0032</b>	LSS	c. 10G>A	p. Gly4Ser	NM_002340. 5, NM_001145436. 1
<b>Ca0032</b>	MTMR3	c. 3355G>C	p. Asp1119His	NM_021090. 3
<b>Ca0032</b>	ALAS2	c. 995_996delinsAA	p. Ser332Ter	NM_000032. 4
<b>Ca0032</b>	GPRASP2	c. 2297G>C	p. Gly766Ala	NM_001184874. 2, NM_001184876. 2, NM_001004051. 3
<b>Ca0032</b>	ACSL4	c. 1960_1964del	p. Arg654SerfsTer11	NM_022977. 2
<b>Ca0032</b>	GPR112	c. 414T>A	p. Asn138Lys	NM_153834. 3
<b>Ca0132</b>	TNFRSF14	c. 558_559insAGG	p. Ser186_Trp187insArg	NM_003820. 2
<b>Ca0132</b>	FHAD1	c. 596_597del	p. Val199GlufsTer?	
<b>Ca0132</b>	PODN	c. 1953_1955del	p. Glu659del	NM_001199081. 1, NM_153703. 4

<b>Ca0132</b>	LMNA	c. 1367A>G	p. Asn456Ser	NM_170707.3
<b>Ca0132</b>	HLX	c. 1282G>A	p. Gly428Ser	NM_021958.3
<b>Ca0132</b>	OR2L2	c. 526T>A	p. Phe176Ile	NM_001004686.2
<b>Ca0132</b>	MRPL35	c. 20C>T	p. Ala7Val	NM_016622.3
<b>Ca0132</b>	SH3RF3	c. 1720del	p. Thr574LeufsTer136	NM_001099289.1
<b>Ca0132</b>	SLC4A3	c. 469dup	p. His157ProfsTer15	NM_005070.3
<b>Ca0132</b>	AQP12A	c. 280C>G	p. Gln94Glu	NM_198998.2
<b>Ca0132</b>	ITPR1	c. 6477_6481del	p. His2159GlnfsTer17	NM_001168272.1
<b>Ca0132</b>	PDIA5	c. 1157del	p. Pro386ArgfsTer26	NM_006810.3
<b>Ca0132</b>	DBR1	c. 1623_1625del	p. Asp542del	NM_016216.3
<b>Ca0132</b>	BMP2K	c. 1380G>C	p. Gln460His	NM_198892.1
<b>Ca0132</b>	DOCK2	c. 4644+1G>T		NM_004946.2
<b>Ca0132</b>	NSD1	c. 950C>T	p. Thr317Met	NM_022455.4
<b>Ca0132</b>	TRIM27	c. 41C>G	p. Thr14Ser	NM_006510.4
<b>Ca0132</b>	EEF1A1	c. 1369A>G	p. Lys457Glu	NM_001402.5
<b>Ca0132</b>	SLC35A1	c. 467C>T	p. Thr156Met	NM_006416.4
<b>Ca0132</b>	INTS1	c. 2366C>T	p. Thr789Met	NM_001080453.2
<b>Ca0132</b>	SP4	c. 19G>A	p. Glu7Lys	NM_003112.3
<b>Ca0132</b>	EGFR	c. 2239_2248del	p. Leu747GlnfsTer16	NM_005228.3
<b>Ca0132</b>	EGFR	c. 2251_2258del	p. Thr751GlnfsTer9	NM_005228.3
<b>Ca0132</b>	PCOLCE	c. 1207C>G	p. Gln403Glu	NM_002593.3
<b>Ca0132</b>	STC1	c. 693_700del	p. Glu232LeufsTer11	NM_003155.2
<b>Ca0132</b>	LRRC1	c. 17C>T	p. Ala6Val	NM_033402.4
<b>Ca0132</b>	AKNA	c. 80C>T	p. Ala27Val	NM_030767.4
<b>Ca0132</b>	TMEM254	c. 331A>G	p. Ile111Val	NM_001270372.1, NM_025125.3
<b>Ca0132</b>	NAV2	c. 5480_5482del	p. Lys1827del	NM_001244963.1
<b>Ca0132</b>	IFFO1	c. 1280G>A	p. Trp427Ter	NM_001039670.2, NM_001193457.1
<b>Ca0132</b>	RPAP3	c. 802G>A	p. Gly268Arg	NM_024604.2
<b>Ca0132</b>	KRT5	c. 555+2_555+5del		NM_000424.3
<b>Ca0132</b>	PHLDA1	c. 588del	p. Gln196HisfsTer42	
<b>Ca0132</b>	PHLDA1	c. 582_586del	p. Gln195AlafsTer220	
<b>Ca0132</b>	ZMY5	c. 159T>A	p. Asp53Glu	NM_001039650.2
<b>Ca0132</b>	OR4Q3	c. 518A>G	p. Asn173Ser	NM_172194.1
<b>Ca0132</b>	ARIH1	c. 1240T>A	p. Tyr414Asn	NM_005744.3
<b>Ca0132</b>	NPIP6	c. 813_815del	p. Gln271del	NM_001282524.1
<b>Ca0132</b>	RSAD1	c. 403A>G	p. Thr135Ala	NM_018346.1
<b>Ca0132</b>	CACNA1G	c. 1640del	p. Pro547LeufsTer17	NM_018896.4
<b>Ca0132</b>	NOL11	c. 973T>G	p. Ser325Ala	NM_015462.3
<b>Ca0132</b>	THOC1	c. 1107del	p. Asp370MetfsTer9	NM_005131.2
<b>Ca0132</b>	FHOD3	c. 2833G>A	p. Asp945Asn	NM_025135.2
<b>Ca0132</b>	TGFB1	c. 29_31del	p. Pro10del	NM_000660.4
<b>Ca0132</b>	PPM1N	c. 481_482delinsTT	p. Gly161Phe	NM_001080401.1
<b>Ca0132</b>	CSRP2BP	c. 918del	p. Gly307AlafsTer3	NM_020536.4

Ca0132	DEFB119	c. 124C>T	p. Arg42Cys	NM_001271209. 1, NM_153323. 4
Ca0132	FAM109B	c. 86del	p. Gly29AlafsTer36	NM_001002034. 2
Ca0132	MED14	c. 4121C>T	p. Ser1374Leu	NM_004229. 3
Ca0132	FGD1	c. 1035G>C	p. Glu345Asp	NM_004463. 2
Ca0132	IRS4	c. 63_65del	p. Ala25del	NM_003604. 2
Ca0034	FOXO2	c. 112del	p. Glu38SerfsTer30	NM_004474. 3
Ca0034	IRF4	c. 389A>T	p. Glu130Val	NM_001195286. 1, NM_002460. 3
Ca0034	PGK2	c. 1006del	p. Trp336GlyfsTer5	NM_138733. 4
Ca0034	PGK2	c. 994_1002del	p. Arg332_Ile334del	NM_138733. 4
Ca0034	AKR1C1	c. 451G>A	p. Val151Met	NM_001353. 5
Ca0034	OR1S1	c. 440T>C	p. Ile147Thr	NM_001004458. 1
Ca0034	OR1S1	c. 442C>T	p. Leu148Phe	NM_001004458. 1
Ca0034	BACE1	c. 1343C>T	p. Pro448Leu	NM_138971. 3, NM_138972. 3, NM_012104. 4, NM_138973. 3
Ca0034	C12orf71	c. 280G>T	p. Val194Leu	NM_001080406. 1
Ca0034	MAP2K1	c. 303_308del	p. Glu102_Ile103del	NM_002755. 3
Ca0034	SLX4	c. 3178C>T	p. Arg1060Trp	NM_032444. 2
Ca0034	MEX3C	c. 537_548del	p. Ala181_Ala184del	NM_016626. 4
Ca0034	HPN	c. 485G>A	p. Arg162His	NM_182983. 2
Ca0034	POLD1	c. 2461C>G	p. His821Asp	NM_002691. 3, NM_001256849. 1
Ca0034	MYT1	c. 1264A>T	p. Thr422Ser	NM_004535. 2
Ca0034	KRTAP13-4	c. 73_74insCCTGGGCTCTTCCT	p. Ser24_Tyr25insSerCysGlySerSer	NM_181600. 1
Ca0034	BCR	c. 1152_1153insTCTGCCCTACC	p. Pro384_Thr385insSerAlaProThr	NM_004327. 3
Ca0034	RBMXL3	c. 617G>A	p. Arg206Lys	NM_001145346. 1
Ca0134	ZCCHC11	c. 2045A>G	p. Asn682Ser	
Ca0134	CASQ2	c. 1185_1187del	p. Asp398del	NM_001232. 3
Ca0134	TCHH	c. 1482_1483insAGGCGCAGCAGCAG	p. Glu494_Glu495insArgArgGluGlnGln	NM_007113. 3
Ca0134	ESYT3	c. 181T>G	p. Trp61Gly	NM_031913. 3
Ca0134	BMP2K	c. 1380G>C	p. Gln460His	NM_198892. 1
Ca0134	RIOK1	c. 192_194del	p. Asp69del	NM_031480. 2, NM_153005. 1
Ca0134	BTBD9	c. 1364A>G	p. Tyr455Cys	NM_052893. 1, NM_001099272. 1
Ca0134	EGFR	c. 2239_2247del	p. Leu747_Glu749del	NM_005228. 3
Ca0134	EGFR	c. 2248G>C	p. Ala750Pro	NM_005228. 3
Ca0134	SLIT1	c. 3587C>T	p. Thr1196Met	NM_003061. 2
Ca0134	AARS	c. 1040C>T	p. Ala347Val	NM_001605. 2
Ca0134	CYBA	c. 521_523del	p. Val174del	NM_000101. 3
Ca0134	CNTNAP1	c. 1045-1G>A		NM_003632. 2
Ca0134	GPR108	c. 140T>G	p. Ile47Ser	NM_001080452. 1
Ca0134	ZNF426	c. 1599A>T	p. Lys533Asn	
Ca0134	SLC8A2	c. 1055del	p. Phe352SerfsTer9	NM_015063. 2



Ca0134	FOXA2	c. 1205_1207del	p. Gln402del	NM_021784.4
Ca0134	FOXA2	c. 1203C>G	p. His401Gln	NM_021784.4
Ca0134	TEF	c. 286C>G	p. Leu96Val	NM_003216.3
Ca0134	MED14	c. 3659T>G	p. Leu1220Arg	NM_004229.3
Ca0134	SHROOM4	c. 3468_3470del	p. Glu1158del	NM_020717.3
Ca0134	DCAF12L2	c. 634T>C	p. Ser212Pro	NM_001013628.2
Ca0036	BAI2	c. 686C>T	p. Ala229Val	NM_001703.2
Ca0036	SMG7	c. 3496C>T	p. Arg1166Ter	NM_201569.2
Ca0036	COL6A6	c. 1340C>A	p. Thr447Asn	NM_001102608.1
Ca0036	TAS2R41	c. 223G>A	p. Glu75Lys	NM_176883.2
Ca0036	NLRP10	c. 356G>T	p. Gly119Val	NM_176821.3
Ca0036	PTPRB	c. 6364T>G	p. Cys2122Gly	NM_001109754.2
Ca0036	MMP17	c. 68_70dup	p. Leu23dup	NM_016155.4
Ca0036	TPTE2	c. 556A>T	p. Arg186Ter	
Ca0036	MAP2K1	c. 303_308del	p. Glu102_Ile103del	NM_002755.3
Ca0036	ARID3A	c. 1650del	p. Gly551AlafsTer113	NM_005224.2
Ca0036	ZNF99	c. 1438C>A	p. Pro480Thr	NM_001080409.2
Ca0036	TGFB1	c. 29_31del	p. Pro10del	NM_000660.4
Ca0036	AGPAT3	c. 64G>A	p. Val22Met	NM_001037553.1
Ca0037	AGRN	c. 1701_1702del	p. Cys567TrpfsTer33	NM_198576.3
Ca0037	EPHB2	c. 1379A>G	p. Asp460Gly	
Ca0037	DMRTA2	c. 898G>A	p. Ala300Thr	NM_032110.2
Ca0037	LYSMD1	c. 61G>A	p. Ala21Thr	NM_212551.4
Ca0037	ARHGEF11	c. 4016A>T	p. Glu1339Val	NM_198236.2
Ca0037	LY9	c. 1445-1G>A		
Ca0037	KLHL20	c. 19C>T	p. Arg7Cys	NM_014458.3
Ca0037	DHX9	c. 2170G>A	p. Asp724Asn	NM_001357.4
Ca0037	C4BPA	c. 959A>G	p. Asp320Gly	NM_000715.3
Ca0037	IRF6	c. 782A>G	p. Asp261Gly	NM_006147.3
Ca0037	LTBP1	c. 958A>T	p. Ile320Phe	
Ca0037	MTTF2	c. 602G>A	p. Arg201Gln	NM_001005369.1
Ca0037	ALMS1	c. 10638C>G	p. Ser3546Arg	NM_015120.4
Ca0037	ZNF2	c. 89G>A	p. Arg30His	NM_021088.2
Ca0037	POTEF	c. 2052A>T	p. Lys684Asn	
Ca0037	CCDC148	c. 895C>T	p. His299Tyr	NM_138803.3
Ca0037	TTN	c. 55660C>T	p. Arg18554Ter	NM_001267550.1
Ca0037	COL6A3	c. 9128G>A	p. Arg3043His	NM_004369.3
Ca0037	GALNT15	c. 1886_1887delinsAA	p. Arg629Gln	NM_054110.4
Ca0037	EEFSEC	c. 1307A>G	p. Asp436Gly	NM_021937.3
Ca0037	CCDC50	c. 701G>A	p. Arg234Gln	NM_178335.2
Ca0037	MZB1	c. 487C>T	p. Arg163Ter	NM_016459.3
Ca0037	PCDHA4	c. 1472C>G	p. Ser491Cys	NM_018907.2
Ca0037	HIST1H2AH	c. 222C>G	p. Asn74Lys	NM_080596.2

Ca0037	KIAA1586	c. 116C>T	p. Ser39Leu	NM_020931.2, NM_001286275.1, NM_001286276.1
Ca0037	EEF1A1	c. 611del	p. Pro204GlnfsTer86	NM_001402.5
Ca0037	IBTK	c. 3701A>G	p. Asn1234Ser	NM_015525.2
Ca0037	CARD11	c. 620G>A	p. Arg207His	NM_032415.4
Ca0037	C7orf31	c. 1146_1147dup	p. Asn3831IlefsTer7	
Ca0037	ZNF736	c. 401A>T	p. His134Leu	
Ca0037	PCL0	c. 5309T>C	p. Ile1770Thr	NM_033026.5
Ca0037	PON3	c. 44_45insGGCCTGGTCTGCTGGGGGTCGGCC TGTC	p. Leu161AfsTer11	NM_000940.2
Ca0037	MUC12	c. 676A>T	p. Ser226Cys	NM_001164462.1
Ca0037	ATXN7L1	c. 830A>G	p. Lys277Arg	NM_020725.1
Ca0037	EPHA1	c. 1545A>T	p. Arg515Ser	NM_005232.4
Ca0037	ADAMDEC1	c. 640C>A	p. Leu214Ile	NM_014479.3
Ca0037	VPS13B	c. 4586C>T	p. Ser1529Phe	NM_017890.4
Ca0037	TLN1	c. 2513A>G	p. Asn838Ser	NM_006289.3
Ca0037	NCBP1	c. 2305C>T	p. Leu769Phe	NM_002486.4
Ca0037	KIAA1462	c. 3838G>A	p. Asp1280Asn	NM_020848.2
Ca0037	IKZF5	c. 170C>T	p. Pro57Leu	NM_001271840.1
Ca0037	PTPRE	c. 284-1G>A		NM_006504.4
Ca0037	CHID1	c. 906G>A	p. Trp302Ter	NM_001142676.1
Ca0037	OR51D1	c. 431G>A	p. Arg144His	NM_001004751.2
Ca0037	HBE1	c. 298G>T	p. Asp100Tyr	
Ca0037	TCP11L1	c. 209C>T	p. Ala70Val	NM_018393.3
Ca0037	FAT3	c. 11615G>C	p. Gly3872Ala	
Ca0037	CACNA1C	c. 1519C>T	p. Arg507Cys	NM_199460.2, NM_001129827.1
Ca0037	PARPBP	c. 49C>T	p. Arg17Ter	
Ca0037	SLITRK5	c. 1936A>C	p. Thr646Pro	NM_015567.1
Ca0037	LTBP2	c. 808G>A	p. Ala270Thr	NM_000428.2
Ca0037	PPP4R4	c. 1477C>T	p. Arg493Ter	NM_058237.1
Ca0037	HS3ST4	c. 780G>C	p. Lys260Asn	NM_006040.2
Ca0037	ORC6	c. 127A>G	p. Thr43Ala	NM_014321.3
Ca0037	VPS9D1	c. 463C>T	p. Gln155Ter	NM_004913.2
Ca0037	FAM64A	c. 311G>A	p. Cys104Tyr	NM_001195228.1
Ca0037	DNAH17	c. 461G>T	p. Gly154Val	
Ca0037	ZNF407	c. 4052A>T	p. Tyr1351Phe	NM_017757.2
Ca0037	ANKRD24	c. 1760C>T	p. Thr587Met	NM_133475.1
Ca0037	STK35	c. 436C>T	p. Gln146Ter	
Ca0037	PTPRT	c. 2362_2364del	p. Lys788del	
Ca0037	RGS19	c. 302G>A	p. Arg101His	NM_005873.2
Ca0037	CABIN1	c. 3673G>T	p. Val1225Phe	NM_001199281.1
Ca0037	LRP5L	c. 509C>T	p. Thr1701Ile	NM_001135772.1
Ca0037	EFCAB6	c. 2474A>T	p. Gln825Leu	NM_022785.3
Ca0037	KLHL34	c. 140T>A	p. Leu47Gln	NM_153270.1

Ca0037	RBM10	c. 2341T>C	p. Ser781Pro	NM_001204468. 1, NM_001204467. 1, NM_005676. 4
Ca0037	ITIH6	c. 2093C>T	p. Ser698Leu	NM_198510. 2
Ca0037	ARR3	c. 298C>T	p. Arg100Ter	NM_004312. 2
Ca0037	PHF6	c. 64T>C	p. Ser22Pro	NM_032458. 2
Ca0137	GABRD	c. 1202C>T	p. Thr401Met	NM_000815. 4
Ca0137	KIAA1522	c. 1676T>C	p. Val559Ala	NM_020888. 2
Ca0137	ABCA4	c. 3293G>A	p. Arg1098His	NM_000350. 2
Ca0137	SPTA1	c. 386C>T	p. Thr129Met	NM_003126. 2
Ca0137	NRBP1	c. 1346G>A	p. Cys449Tyr	
Ca0137	KIAA1211L	c. 2251C>T	p. Arg751Trp	NM_207362. 2
Ca0137	ZDBF2	c. 5284C>A	p. Gln1762Lys	NM_020923. 1, NM_001285549. 1
Ca0137	DGKD	c. 2170G>T	p. Val724Phe	NM_152879. 2
Ca0137	SLC4A7	c. 2693G>T	p. Arg898Ile	NM_003615. 4
Ca0137	SLC6A20	c. 787G>A	p. Ala263Thr	NM_020208. 3
Ca0137	RELL1	c. 446C>T	p. Pro149Leu	NM_001085400. 1
Ca0137	SNX18	c. 1246G>A	p. Ala416Thr	NM_052870. 2
Ca0137	RIOK1	c. 192_194del	p. Asp69del	NM_031480. 2, NM_153005. 1
Ca0137	REV3L	c. 8509G>C	p. Gly2837Arg	
Ca0137	SP4	c. 19G>A	p. Glu7Lys	NM_003112. 3
Ca0137	SLC18A1	c. 1372C>T	p. Pro458Ser	NM_001135691. 2
Ca0137	STAU2	c. 1091_1092insG	p. Asn364LysfsTer13	NM_001164381. 1, NM_001164380. 1
Ca0137	LRRC56	c. 10G>A	p. Gly4Ser	NM_198075. 3
Ca0137	XRRA1	c. 2155C>T	p. Arg719Trp	NM_182969. 2
Ca0137	MYO16	c. 4051C>A	p. Pro1351Thr	NM_015011. 1
Ca0137	SSTR1	c. 242A>G	p. Tyr81Cys	NM_001049. 2
Ca0137	NRDE2	c. 2956G>A	p. Ala986Thr	NM_017970. 3
Ca0137	SPG21	c. 256G>A	p. Glu86Lys	NM_016630. 3
Ca0137	ERBB2	c. 2313_2324dup	p. Tyr772_Ala775dup	
Ca0137	TRIM25	c. 1772T>C	p. Phe591Ser	NM_005082. 4
Ca0137	ZNF98	c. 58T>A	p. Leu201Ile	NM_001098626. 1
Ca0137	ZNF667	c. 775G>A	p. Gly259Arg	
Ca0137	ZFP28	c. 2071C>T	p. His691Tyr	NM_020828. 1
Ca0137	TRPM2	c. 859G>A	p. Val287Met	NM_003307. 3
Ca0137	MYH9	c. 776T>C	p. Leu259Ser	NM_002473. 4
Ca0137	PLXNB3	c. 1855+2T>C		NM_001163257. 1
Ca0038	TNFRSF14	c. 558_559insAGG	p. Ser186_Trp187insArg	NM_003820. 2
Ca0038	TRIT1	c. 407A>G	p. Asn136Ser	NM_017646. 4
Ca0038	REV3L	c. 6823A>T	p. Thr2275Ser	
Ca0038	EGFR	c. 185T>G	p. Leu62Arg	NM_005228. 3
Ca0038	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228. 3
Ca0038	ABCA1	c. 1405A>G	p. Lys469Glu	NM_005502. 3
Ca0038	RAPGEF1	c. 2790G>T	p. Lys930Asn	NM_198679. 1

Ca0038	TLN2	c. 7507G>A	p. Ala2503Thr	
Ca0038	TLK2	c. 283G>A	p. Ala95Thr	NM_006852.3
Ca0038	JUNB	c. 684_685dup	p. Gln229ArgfsTer73	NM_002229.2
Ca0038	ZNF681	c. 1633C>T	p. His545Tyr	NM_138286.2
Ca0038	ZNF540	c. 151A>G	p. Lys51Glu	NM_152606.4
Ca0038	PROKR2	c. 254G>A	p. Arg85His	
Ca0038	KRTAP13-3	c. 74_88del	p. Ser25_Ser29del	NM_181622.1
Ca0038	MED14	c. 1355T>A	p. Leu452Gln	NM_004229.3
Ca0038	SSX7	c. 437G>A	p. Ser146Asn	NM_173358.2
Ca0038	SSX7	c. 433C>G	p. Pro145Ala	NM_173358.2
Ca0038	H2BFWT	c. 228_229insGG	p. Arg77GlyfsTer14	NM_001002916.4
Ca0039	PRPF3	c. 933del	p. Phe311LeufsTer69	NM_004698.2
Ca0039	RETSAT	c. 1366+2T>G		NM_017750.3
Ca0039	RETSAT	c. 1366G>C	p. Gly456Arg	NM_017750.3
Ca0039	LRP1B	c. 9809C>G	p. Pro3270Arg	NM_018557.2
Ca0039	TMEM89	c. 367C>T	p. Arg123Cys	NM_001008269.1
Ca0039	UGT2B11	c. 1190_1191delinsGG	p. Phe397Trp	NM_001073.1
Ca0039	UGT2B28	c. 220C>T	p. Leu74Phe	NM_053039.1
Ca0039	UGT2B28	c. 586G>A	p. Val196Ile	NM_053039.1
Ca0039	FYN	c. 44C>T	p. Thr15Met	NM_002037.5
Ca0039	SP4	c. 19G>A	p. Glu7Lys	NM_003112.3
Ca0039	EGFR	c. 2238_2247del	p. Leu747GlnfsTer16	NM_005228.3
Ca0039	EGFR	c. 2249dup	p. Thr751AsnfsTer12	NM_005228.3
Ca0039	MAPK15	c. 397G>C	p. Val133Leu	NM_139021.2
Ca0039	TRAF2	c. 26del	p. Pro9LeufsTer77	NM_021138.3
Ca0039	CDH23	c. 3071G>A	p. Gly1024Asp	NM_001171933.1, NM_001171934.1
Ca0039	CYP2C8	c. 902_903inv	p. Thr301Met	NM_000770.3, NM_001198855.1, NM_001198853.1
Ca0039	FRAT1	c. 66G>C	p. Glu22Asp	NM_005479.3
Ca0039	CYP2E1	c. 241C>T	p. His81Tyr	
Ca0039	OR2AG1	c. 260G>T	p. Arg87Leu	NM_001004489.2
Ca0039	SAA1	c. 256T>C	p. Phe86Leu	NM_000331.4
Ca0039	SAA1	c. 259_261delinsACA	p. Phe87Thr	NM_000331.4
Ca0039	OR1S1	c. 894A>G	p. Ile298Met	NM_001004458.1
Ca0039	OR10G8	c. 698A>G	p. Lys233Arg	NM_001004464.1
Ca0039	C12orf55	c. 8379A>T	p. Lys2793Asn	
Ca0039	BCL11B	c. 526G>T	p. Ala176Ser	NM_138576.2, NM_001282237.1
Ca0039	KIF26A	c. 4085del	p. Pro1362ArgfsTer24	NM_015656.1
Ca0039	ACAN	c. 5809G>T	p. Val1937Leu	NM_013227.3
Ca0039	HBZ	c. 157_160dup	p. Ala54ValfsTer124	NM_005332.2
Ca0039	RAD51D	c. 155C>T	p. Ala52Val	NM_001142571.1
Ca0039	SLC35G3	c. 651del	p. Cys218AlafsTer34	NM_152462.2
Ca0039	ZBTB7C	c. 394del	p. Asp132ThrfsTer90	
Ca0039	ZSCAN5A	c. 1246G>A	p. Val1416Ile	

Ca0039	KRTAP10-2	c. 555_556insT	p. Val186CysfsTer29	NM_198693.2
Ca0039	KRTAP10-5	c. 285_286insACTGTCTGCTGCAAG	p. Lys95_Pro96insThrValCysCysLys	NM_198694.2
Ca0039	EWSR1	c. 1364C>T	p. Pro455Leu	
Ca0039	SSX3	c. 481G>A	p. Glu161Lys	NM_021014.3
Ca0039	MED12	c. 2690T>G	p. Leu897Arg	
Ca0039	MED12	c. 5400+1G>T		
Ca0039	H2BFWT	c. 23_24del	p. Arg8ProfsTer27	NM_001002916.4
Ca0040	ANKRD13C	c. 908G>A	p. Arg303Gln	NM_030816.4
Ca0040	WDR63	c. 1423G>T	p. Glu475Ter	NM_145172.3
Ca0040	TCHH	c. 2671G>T	p. Ala891Ser	NM_007113.3
Ca0040	FM01	c. 969C>A	p. Asp323Glu	NM_001282692.1
Ca0040	DNM3	c. 1231G>A	p. Ala411Thr	NM_015569.4
Ca0040	SP5	c. 361T>C	p. Tyr121His	NM_001003845.2
Ca0040	SPOCK3	c. 686A>T	p. Lys229Met	NM_016950.2
Ca0040	BTN3A3	c. 851C>T	p. Thr284Ile	NM_006994.4
Ca0040	SYNCRIP	c. 652G>C	p. Glu218Gln	NM_001159675.1, NM_006372.4
Ca0040	ABCB5	c. 2609T>G	p. Leu870Arg	NM_001163941.1
Ca0040	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228.3
Ca0040	SEMA3A	c. 186G>C	p. Leu62Phe	NM_006080.2
Ca0040	EXTL3	c. 478C>T	p. Leu160Phe	NM_001440.3
Ca0040	COL15A1	c. 626C>A	p. Ala209Asp	NM_001855.4
Ca0040	ASTN2	c. 661C>G	p. Leu221Val	NM_014010.4
Ca0040	OGDHL	c. 1127A>G	p. Lys376Arg	NM_018245.2
Ca0040	BLNK	c. 735G>T	p. Leu245Phe	NM_013314.3
Ca0040	NOLC1	c. 608-1G>T		NM_004741.3
Ca0040	SLC25A22	c. 826C>A	p. Leu276Met	NM_024698.5, NM_001191061.1
Ca0040	OR4A5	c. 832A>T	p. Met278Leu	NM_001005272.3
Ca0040	OR1S1	c. 197_198delinsTA	p. Thr661Ile	NM_001004458.1
Ca0040	CCDC88B	c. 4376G>A	p. Gly1459Asp	NM_032251.5
Ca0040	KRTAP5-10	c. 48_68del	p. Cys24_Gly30del	NM_001012710.1
Ca0040	NALCN	c. 316C>T	p. Arg106Cys	NM_052867.2
Ca0040	FLRT2	c. 1406G>A	p. Arg469His	NM_013231.4
Ca0040	TGF25	c. 902A>T	p. Asp301Val	NM_014972.2
Ca0040	TP53	c. 98C>T	p. Ser33Phe	NM_001126112.2, NM_001276761.1, NM_001276760.1, NM_000546.5, NM_001126118.1
Ca0040	TP53	c. 97-2A>C		NM_001126112.2, NM_001276761.1, NM_001276760.1, NM_000546.5, NM_001126118.1
Ca0040	TP53	c. 81_82del	p. Glu28LysfsTer14	NM_001126112.2, NM_001276761.1, NM_001276760.1, NM_000546.5, NM_001126118.1
Ca0040	TP53	c. 80C>A	p. Pro27His	NM_001126112.2, NM_001276761.1, NM_001276760.1, NM_000546.5, NM_001126118.1

Ca0040	PIK3R5	c. 986A>T	p. Glu329Val	NM_001251855. 1, NM_001142633. 2, NM_001251852. 1, NM_001251853. 1, NM_001251851. 1
Ca0040	PTH2	c. 64C>G	p. Leu22Val	NM_178449. 3
Ca0040	KRTAP13-3	c. 74_88del	p. Ser25_Ser29del	NM_181622. 1
Ca0040	KRTAP13-4	c. 73_74insCCTGGCTCTTCT	p. Ser24_Tyr25insSerCysGlySerSer	NM_181600. 1
Ca0040	CABIN1	c. 4676C>T	p. Pro1559Leu	NM_001199281. 1
Ca0040	MAMLD1	c. 1715A>T	p. Gln572Leu	NM_001177465. 2
Ca0041	WDR65	c. 2120G>A	p. Arg707His	NM_001195831. 2
Ca0041	PTPRF	c. 3521G>A	p. Arg1174Gln	NM_002840. 3
Ca0041	ASH1L	c. 4813A>G	p. Asn1605Asp	NM_018489. 2
Ca0041	CAPN2	c. 1612_1615del	p. Phe538ProfsTer19	NM_001748. 4
Ca0041	ACTR2	c. 903_905del	p. Glu301_Phe302delinsAsp	NM_001005386. 2
Ca0041	SLC4A3	c. 469dup	p. His157ProfsTer15	NM_005070. 3
Ca0041	IRS1	c. 1022C>T	p. Ser341Leu	NM_005544. 2
Ca0041	NPRL2	c. 808A>C	p. Lys270Gln	NM_006545. 4
Ca0041	ZXDC	c. 2033G>A	p. Ser678Asn	NM_025112. 4
Ca0041	KDM3B	c. 4688T>G	p. Val1563Gly	NM_016604. 3
Ca0041	C1QTNF2	c. 274C>T	p. Pro92Ser	NM_031908. 4
Ca0041	KIF6	c. 1243G>A	p. Gly415Ser	NM_145027. 4
Ca0041	GOPC	c. 210G>A	p. Met701Ile	NM_020399. 3
Ca0041	AEBP1	c. 3396_3398del	p. Lys1133del	NM_001129. 4
Ca0041	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228. 3
Ca0041	BMP1	c. 73_93del	p. Asp27_Ala33del	NM_006129. 4
Ca0041	OPLAH	c. 3489_3490insGTGCTCCTCACAGATGGAAAAATGGTGAGAGCACACCTGATTACTCTATA	p. Leu1164ValfsTer42	NM_017570. 3
Ca0041	MPDZ	c. 2971A>C	p. Asn991His	NM_001261407. 1, NM_003829. 4
Ca0041	TLN1	c. 4765A>G	p. Ser1589Gly	NM_006289. 3
Ca0041	ZNF33B	c. 2311C>T	p. His771Tyr	NM_006955. 1
Ca0041	PRDM11	c. 629G>C	p. Arg210Pro	NM_001256695. 1, NM_001256696. 1
Ca0041	SF3B2	c. 25C>T	p. Pro9Ser	NM_006842. 2
Ca0041	CADM1	c. 369T>A	p. Phe123Leu	NM_014333. 3
Ca0041	PKP2	c. 2095C>G	p. Gln699Glu	NM_004572. 3
Ca0041	NUAK1	c. 442C>T	p. Arg148Ter	NM_014840. 2
Ca0041	ATXN2	c. 2857C>T	p. Gln953Ter	NM_002973. 3
Ca0041	NUPL1	c. 211A>G	p. Lys71Glu	NM_014089. 3, NM_001008564. 1
Ca0041	ENOX1	c. 1462del	p. Gln488ArgfsTer4	NM_017993. 3, NM_001242863. 1
Ca0041	DZIP1	c. 2036C>T	p. Pro679Leu	
Ca0041	KIF26A	c. 4085del	p. Pro1362ArgfsTer24	NM_015656. 1
Ca0041	CHRN4	c. 1475C>G	p. Pro492Arg	NM_000750. 3
Ca0041	FAM57B	c. 267C>G	p. Ile89Met	NM_031478. 4
Ca0041	CCDC79	c. 76C>G	p. Gln26Glu	NM_001136505. 1

Ca0041	TAF1C	c. 1726C>T	p. Pro576Ser	NM_005679.3
Ca0041	TAF1C	c. 1452_1453delinsTT	p. Pro485Ser	NM_005679.3
Ca0041	GUCY2D	c. 1519G>A	p. Val507Met	NM_000180.3
Ca0041	TRIM16L	c. 619A>G	p. Ser207Gly	
Ca0041	ACSF2	c. 909G>A	p. Met303Ile	NM_025149.4
Ca0041	SLC39A11	c. 301C>G	p. His101Asp	NM_001159770.1
Ca0041	CCDC40	c. 3323_3333dup	p. Asp1112ProfsTer24	NM_017950.3
Ca0041	LRG1	c. 35_42del	p. Pro12HisfsTer7	NM_052972.2
Ca0041	ATP4A	c. 363C>G	p. Ile121Met	NM_000704.2
Ca0041	DYRK1B	c. 292G>A	p. Asp98Asn	
Ca0041	SPTBN4	c. 6115C>T	p. Arg2039Cys	
Ca0041	DMPK	c. 1147G>A	p. Gly383Arg	NM_001081563.1
Ca0041	ELSPBP1	c. 144C>G	p. Ser48Arg	NM_022142.4
Ca0041	EMC10	c. 773G>A	p. Gly258Glu	NM_206538.2
Ca0041	TSPO	c. 505G>C	p. Glu169Gln	NM_001256530.1, NM_001256531.1
Ca0041	PLXNB2	c. 1584C>G	p. Asn528Lys	
Ca0041	MAML1	c. 1715A>T	p. Gln572Leu	NM_001177465.2
Ca0042	TNFRSF14	c. 558_559insAGG	p. Ser186_Trp187insArg	NM_003820.2
Ca0042	ECE1	c. 385G>A	p. Ala129Thr	NM_001397.2
Ca0042	YBX1	c. 749C>T	p. Pro250Leu	NM_004559.3
Ca0042	KIAA0040	c. 195_205del	p. Asn65LysfsTer9	
Ca0042	SOAT1	c. 1062G>T	p. Gln354His	NM_003101.5
Ca0042	RETSAT	c. 1475C>T	p. Ser492Phe	NM_017750.3
Ca0042	TUBA4A	c. 541G>A	p. Val181Met	NM_006000.2
Ca0042	FAM172A	c. 574T>A	p. Tyr192Asn	NM_032042.5
Ca0042	PGC	c. 60-2del		NM_002630.3
Ca0042	CEP85L	c. 623A>G	p. His208Arg	NM_001178035.1
Ca0042	SP4	c. 917A>C	p. Asn306Thr	NM_003112.3
Ca0042	AZGP1	c. 331A>G	p. Ser111Gly	NM_001185.3
Ca0042	BRAF	c. 1742A>G	p. Asn581Ser	NM_004333.4
Ca0042	TSC1	c. 860_861del	p. His287ProfsTer12	NM_001162426.1, NM_001162427.1, NM_000368.4
Ca0042	ANTXRL	c. 963_965+14del		NM_001278688.1
Ca0042	ACO22532.1	c. 253C>T	p. Pro85Ser	
Ca0042	FRA10AC1	c. 734A>T	p. His245Leu	NM_145246.4
Ca0042	IGSF22	c. 3312G>T	p. Leu1104Phe	NM_173588.3
Ca0042	OR1S2	c. 803C>T	p. Thr268Ile	NM_001004459.1
Ca0042	OR1S1	c. 303G>C	p. Lys101Asn	NM_001004458.1
Ca0042	KRTAP5-10	c. 48_68del	p. Cys24_Gly30del	NM_001012710.1
Ca0042	OR10G8	c. 698A>G	p. Lys233Arg	NM_001004464.1
Ca0042	PLEKHH1	c. 3183+3_3183+33del		NM_020715.2
Ca0042	BRICD5	c. 115C>G	p. Leu39Val	NM_182563.3
Ca0042	SLX4	c. 710G>A	p. Arg237Gln	NM_032444.2

Ca0042	PRPF8	c. 5407A>G	p. Ile1803Val	
Ca0042	MYO18A	c. 4435_4464del	p. Leu1479_Lys1488del	NM_078471.3
Ca0042	CD209	c. 166_167insA	p. Leu56HisfsTer30	NM_021155.3, NM_001144895.1, NM_001144897.1
Ca0042	CD209	c. 165_166insGTCCTGGTGGC	p. Leu56ValfsTer16	NM_021155.3, NM_001144895.1, NM_001144897.1
Ca0042	OR7D4	c. 679G>A	p. Gly227Arg	NM_001005191.2
Ca0042	OR10H1	c. 170C>T	p. Thr57Met	NM_013940.2
Ca0042	FCGBP	c. 995_996delinsTT	p. Tyr332Phe	NM_003890.2
Ca0042	SIGLEC11	c. 1139C>G	p. Pro380Arg	NM_052884.2
Ca0042	ZSCAN5A	c. 860A>G	p. Asn287Ser	
Ca0042	ZNF587B	c. 646_647inv	p. His216Cys	NM_001204818.1
Ca0042	FOXA2	c. 1205_1207del	p. Gln402del	NM_021784.4
Ca0042	FOXA2	c. 1203C>G	p. His401Gln	NM_021784.4
Ca0042	KRTAP13-3	c. 74_88del	p. Ser25_Ser29del	NM_181622.1
Ca0042	POFUT2	c. 382+2_382+6del		NM_133635.4
Ca0042	SHROOM4	c. 3468_3470del	p. Glu1158del	NM_020717.3
Ca0042	MAGEA6	c. 893G>A	p. Arg298His	NM_005363.2
Ca0042	HCFC1	c. 3553_3573del	p. Ala1185_Pro1191del	NM_005334.2
Ca0043	SPEN	c. 8830C>T	p. His2944Tyr	NM_015001.2
Ca0043	LDLRAP1	c. 604del	p. Ser202ProfsTer2	NM_015627.2
Ca0043	CLCC1	c. 34_36del	p. Leu13del	NM_001048210.2
Ca0043	ASPM	c. 9578G>A	p. Arg3193His	NM_018136.4
Ca0043	KIF21B	c. 4882G>T	p. Ala1628Ser	NM_001252100.1
Ca0043	KIF21B	c. 4493A>G	p. Asn1498Ser	NM_001252100.1
Ca0043	GREB1	c. 3653C>T	p. Ser1218Leu	NM_014668.3
Ca0043	PTH2R	c. 1541_1547del	p. Lys514IlefsTer10	NM_005048.3
Ca0043	PECR	c. 426_427insA	p. Tyr1431IlefsTer20	NM_018441.5
Ca0043	GIGYF2	c. 3003_3005del	p. Gln1005del	
Ca0043	DPPA4	c. 754G>A	p. Ala252Thr	NM_018189.3
Ca0043	CLDN1	c. 201dup	p. Asp68Ter	NM_021101.4
Ca0043	NFXL1	c. 2114G>C	p. Cys705Ser	NM_001278624.1
Ca0043	EPHA5	c. 769G>T	p. Glu257Ter	NM_004439.5, NM_001281765.1
Ca0043	UGT2B11	c. 1324A>G	p. Ile442Val	NM_001073.1
Ca0043	BMP2K	c. 1380G>C	p. Gln460His	NM_198892.1
Ca0043	ADAM29	c. 187C>T	p. His63Tyr	NM_014269.4, NM_001278126.1, NM_001278125.1
Ca0043	WWC2	c. 1496C>G	p. Ser499Cys	NM_024949.5
Ca0043	CDKN2AIP	c. 894C>G	p. Ser298Arg	NM_017632.2
Ca0043	CCDC125	c. 115A>T	p. Ile39Phe	
Ca0043	NR2F1	c. 511T>C	p. Tyr17His	NM_005654.4
Ca0043	MOCS1	c. 716T>C	p. Leu239Pro	NM_005943.5
Ca0043	GRIK2	c. 1696T>A	p. Tyr566Asn	NM_021956.4
Ca0043	GNAI2	c. 706C>A	p. Gln236Lys	NM_007353.2
Ca0043	HDAC9	c. 3074T>C	p. Leu1025Pro	NM_178425.2
Ca0043	ZMIZ2	c. 581A>T	p. Gln194Leu	NM_031449.3



Ca0043	EGFR	c. 2573T>G	p. Leu858Arg	NM_005228. 3
Ca0043	ZNF727	c. 673A>G	p. Lys225Glu	NM_001159522. 1
Ca0043	EZH2	c. 1544A>G	p. Lys515Arg	NM_004456. 4, NM_001203248. 1, NM_001203247. 1
Ca0043	ENPP2	c. 1604G>C	p. Ser535Thr	NM_006209. 4
Ca0043	TUSC1	c. 632G>A	p. Trp211Ter	NM_001004125. 2
Ca0043	ASTN2	c. 661C>G	p. Leu221Val	NM_014010. 4
Ca0043	ANXA8L2	c. 546C>A	p. Asp182Glu	NM_001630. 2
Ca0043	BLNK	c. 1195C>T	p. Arg399Ter	NM_013314. 3
Ca0043	FAM178A	c. 2653G>A	p. Val1885Ile	NM_001136123. 1
Ca0043	OR1S1	c. 303G>C	p. Lys101Asn	NM_001004458. 1
Ca0043	WDR74	c. 113A>G	p. Gln38Arg	
Ca0043	UCP2	c. 131A>C	p. Gln44Pro	NM_003355. 2
Ca0043	OR10G7	c. 344_345delinsGG	p. Thr115Arg	NM_001004463. 1
Ca0043	PRB2	c. 1154G>A	p. Gly385Glu	NM_006248. 3
Ca0043	SCN8A	c. 5155_5156del	p. Pro1719Ter	NM_014191. 3, NM_001177984. 2
Ca0043	ITGB7	c. 568C>T	p. Arg190Cys	NM_000889. 1
Ca0043	MED13L	c. 235G>A	p. Asp79Asn	NM_015335. 4
Ca0043	INSM2	c. 1279G>A	p. Val1427Met	NM_032594. 3
Ca0043	CTAGE5	c. 404C>T	p. Thr135Ile	NM_001247989. 1, NM_203355. 2, NM_001247990. 1, NM_005930. 3
Ca0043	VCPKMT	c. 519_521del	p. Tyr173_Glu174del insTer	NM_024558. 2
Ca0043	CAPN3	c. 857T>G	p. Leu286Trp	NM_000070. 2
Ca0043	GOLGA6C	c. 2062C>T	p. Pro688Ser	NM_001164404. 1
Ca0043	SMG1	c. 37G>A	p. Gly13Ser	
Ca0043	N4BP1	c. 509A>G	p. Asn170Ser	NM_153029. 3
Ca0043	NOD2	c. 1583del	p. Pro528GlnfsTer235	NM_022162. 1
Ca0043	SALL1	c. 641C>T	p. Ala214Val	NM_002968. 2
Ca0043	COQ9	c. 305G>T	p. Arg102Leu	NM_020312. 3
Ca0043	MYH3	c. 2671C>G	p. Gln891Glu	NM_002470. 3
Ca0043	KRT14	c. 220A>T	p. Ser74Cys	NM_000526. 4
Ca0043	GPATCH8	c. 4052del	p. Pro1351GlnfsTer63	NM_001002909. 2
Ca0043	GPATCH8	c. 4048G>A	p. Ala1350Thr	NM_001002909. 2
Ca0043	CACNA1G	c. 3286C>T	p. Pro1096Ser	NM_018896. 4
Ca0043	CACNA1A	c. 3409C>T	p. Pro1137Ser	NM_001127222. 1, NM_001174080. 1, NM_023035. 2, NM_000068. 3
Ca0043	CASP14	c. 706C>T	p. Arg236Trp	NM_012114. 2
Ca0043	CALR3	c. 1094C>T	p. Ser365Leu	NM_145046. 4
Ca0043	YJEFN3	c. 665T>C	p. Ile222Thr	NM_198537. 3
Ca0043	RASIP1	c. 1687G>A	p. Ala563Thr	NM_017805. 2
Ca0043	ACPT	c. 58C>G	p. Leu20Val	NM_033068. 2
Ca0043	TRIM28	c. 2174C>T	p. Thr725Ile	NM_005762. 2
Ca0043	ATRN	c. 215T>C	p. Leu72Pro	NM_139321. 2

Ca0043	CST9	c. 160G>T	p. Ala54Ser	NM_001008693. 2
Ca0043	ACSS1	c. 2048A>C	p. Asp683Ala	NM_001252675. 1, NM_032501. 3
Ca0043	KRTAP13-4	c. 73_74insCCTGTGGCTCTTCCT	p. Ser24_Tyr25insSerCysGlySerSer	NM_181600. 1
Ca0043	MYH9	c. 3G>A	p. Met1?	NM_002473. 4
Ca0043	TNRC6B	c. 416T>A	p. Val139Glu	NM_001162501. 1
Ca0043	MAGIX	c. 65de1	p. Pro22ArgfsTer54	NM_024859. 2
Ca0043	CACNA1F	c. 1252G>A	p. Asp418Asn	NM_005183. 2
Ca0043	MAGEE1	c. 416C>A	p. Ser139Tyr	NM_020932. 2
Ca0043	FAM127A	c. 142G>A	p. Gly48Ser	NM_001078171. 1
Ca0043	FAM127A	c. 179G>A	p. Ser60Asn	NM_001078171. 1
Ca0043	FATE1	c. 421C>A	p. Leu141Met	NM_033085. 2
Ca0043	CSAG1	c. 138T>G	p. Phe46Leu	NM_153478. 1
Ca0043	CSAG1	c. 184_185delinsGG	p. Lys62Gly	NM_153478. 1
Ca0045	TAS1R2	c. 527G>C	p. Arg176Pro	NM_152232. 2
Ca0045	EPHA10	c. 218C>T	p. Thr73Met	NM_001099439. 1
Ca0045	ZFP69B	c. 727A>G	p. Ile243Val	NM_023070. 2
Ca0045	DUSP27	c. 1252G>C	p. Glu418Gln	
Ca0045	TNR	c. 2704C>G	p. Gln902Glu	
Ca0045	KIAA1614	c. 2979C>G	p. Asn993Lys	NM_020950. 1
Ca0045	NFASC	c. 485G>A	p. Cys162Tyr	NM_001005388. 2
Ca0045	USP34	c. 1615A>G	p. Met539Val	NM_014709. 3
Ca0045	INPP4A	c. 1142A>G	p. Lys381Arg	NM_001134224. 1, NM_004027. 2
Ca0045	NCKAP5	c. 1249C>T	p. Pro417Ser	NM_207363. 2
Ca0045	COL7A1	c. 7345-1G>A		NM_000094. 3
Ca0045	RGS12	c. 2358C>G	p. Ser786Arg	NM_198229. 2
Ca0045	WDFY3	c. 10480A>G	p. Ile3494Val	NM_014991. 4
Ca0045	HTR4	c. 697G>A	p. Gly233Arg	NM_001040173. 2
Ca0045	NMUR2	c. 1117G>T	p. Glu373Ter	NM_020167. 4
Ca0045	CPEB4	c. 865C>T	p. Gln289Ter	NM_030627. 2
Ca0045	ADAMTS2	c. 3352G>A	p. Val1118Met	NM_014244. 4
Ca0045	EFHC1	c. 1201A>T	p. Ile401Phe	NM_018100. 3
Ca0045	DST	c. 982G>A	p. Asp328Asn	
Ca0045	EGFR	c. 2240_2254del	p. Leu747_Thr751del	NM_005228. 3
Ca0045	KAT6A	c. 5738C>T	p. Ser1913Phe	NM_001099412. 1
Ca0045	RNF139	c. 1627A>G	p. Ile543Val	NM_007218. 3
Ca0045	LRSAM1	c. 1780C>T	p. Arg594Cys	NM_138361. 5
Ca0045	ZNF37A	c. 1343de1	p. Phe448SerfsTer11	NM_001178101. 1, NM_003421. 2
Ca0045	F2	c. 1054G>A	p. Glu352Lys	NM_000506. 3
Ca0045	KCNK4	c. 766T>G	p. Trp256Gly	
Ca0045	GUCY1A2	c. 1110G>T	p. Lys370Asn	NM_001256424. 1
Ca0045	SLITRK5	c. 1076G>C	p. Gly359Ala	NM_015567. 1
Ca0045	TEP1	c. 5204C>T	p. Thr1735Ile	NM_007110. 4

Ca0045	HIF1A	c. 2459C>G	p. Thr820Ser	NM_001243084. 1
Ca0045	SCG3	c. 429del	p. Thr144LeufsTer3	NM_013243. 3
Ca0045	GRIN2A	c. 4184C>T	p. Ala1395Val	NM_000833. 3
Ca0045	MYH11	c. 838C>T	p. Arg280Cys	NM_001040114. 1
Ca0045	GINS2	c. 557A>G	p. Ter186TrpextTer27	NM_016095. 2
Ca0045	OR3A1	c. 271C>T	p. Arg91Cys	NM_002550. 2
Ca0045	SLC13A5	c. 270C>G	p. Phe90Leu	NM_177550. 3
Ca0045	MAP2K4	c. 731A>T	p. Lys244Met	NM_003010. 3
Ca0045	FLII	c. 3364A>C	p. Asn1122His	NM_002018. 3
Ca0045	CCL13	c. 205C>G	p. Leu69Val	NM_005408. 2
Ca0045	ACACA	c. 3418A>G	p. Ile1140Val	NM_198834. 1, NM_198839. 1
Ca0045	BZRAP1	c. 75_76del	p. His25GlnfsTer9	
Ca0045	BZRAP1	c. 59_71del	p. Ala20GlyfsTer32	
Ca0045	TANC2	c. 3194G>T	p. Arg1065Leu	NM_025185. 3
Ca0045	POLRMT	c. 2266G>T	p. Ala756Ser	NM_005035. 3
Ca0045	PRODH2	c. 740A>C	p. Lys247Thr	NM_021232. 1
Ca0045	LRRC4B	c. 1796_1804del	p. Leu599_Lys601del	
Ca0045	PEG3	c. 2859C>A	p. His953Gln	NM_006210. 2
Ca0045	CASS4	c. 314G>T	p. Arg105Leu	NM_001164114. 1, NM_020356. 3
Ca0045	RFPL3	c. 839G>A	p. Arg280His	NM_001098535. 1
Ca0045	FAM47B	c. 444_445delinsTT	p. Gln148_Val149delinsHisLeu	NM_152631. 2
Ca0046	FAM179A	c. 2052C>A	p. Asn684Lys	NM_199280. 2
Ca0046	ZRANB3	c. 2783C>T	p. Ala928Val	NM_032143. 2
Ca0046	LAMP3	c. 935del	p. Val312AlafsTer16	NM_014398. 3
Ca0046	BRAF	c. 1809_1810del	p. Trp604GluTer7	NM_004333. 4
Ca0046	BRAF	c. 1801_1807del	p. Lys601AspfsTer47	NM_004333. 4
Ca0046	FAM135B	c. 2819C>T	p. Thr940Met	NM_015912. 3
Ca0046	KLHL9	c. 1679T>G	p. Met560Arg	
Ca0046	TAF1L	c. 2556del	p. Pro854LeufsTer12	NM_153809. 2
Ca0046	LHX2	c. 700G>A	p. Gly234Ser	NM_004789. 3
Ca0046	FAM78A	c. 37G>T	p. Glu13Ter	NM_033387. 3
Ca0046	TAF3	c. 2492C>T	p. Pro831Leu	NM_031923. 3
Ca0046	FREM2	c. 4791G>T	p. Leu1597Phe	NM_207361. 4
Ca0046	SOCS7	c. 1428G>C	p. Lys476Asn	NM_014598. 2
Ca0046	MAP2K2	c. 383C>G	p. Pro128Arg	NM_030662. 3
Ca0046	ARRDC5	c. 308G>C	p. Ser103Thr	NM_001080523. 1
Ca0046	NLRP11	c. 413C>T	p. Ser138Phe	NM_145007. 3
Ca0046	FOXA2	c. 1205_1207del	p. Gln402del	NM_021784. 4
Ca0046	FAM83D	c. 1002C>G	p. His334Gln	NM_030919. 2