

S3 Table. Somatic mutations detected in tumor tissues (T1) and serial ctDNA samples (B1, B2, B3, B4) in patients with small-cell lung cancer

Patient ID	Time points	Gene symbol	cHGVS	pHGVS	Transcript	Function	VarType	ExIn_ID	caseAF ratio of copy number
P01	B1	<i>RBI</i>	c.1641A[4>3]	p.K548Nfs*3	NM_000321.2	Frameshift	del	EX17	31.09
P01	B1	<i>PTEN</i>	c.226T>C	p.Y76H	NM_000314.4	Missense	snv	EX4	14.82
P01	B1	<i>SDHAF2</i>	c.341A>G	p.N114S	NM_017841.2	Missense	snv	EX3	11.43
P01	B1	<i>FLT1</i>	c.3344A>T	p.E1115V	NM_002019.4	Missense	snv	EX25	9.85
P01	B1	<i>APC</i>	c.2589C>A	p.Y863*	NM_000038.5	Nonsense	snv	EX16E	7.74
P01	B1	<i>APC</i>	c.2311G>T	p.E771*	NM_000038.5	Nonsense	snv	EX16E	1.01
P01	B1	<i>PDGFRB</i>	c.965_967delTGG	p.V322del	NM_002609.3	cds-del	del	EX7	0.61
P01	B1	<i>TP53</i>	c.460G[2>1]	p.G154Afs*16	NM_000546.5	Frameshift	del	EX5	18.78
P01	B2	-	-	-	-	-	-	-	-
P01	B3	-	-	-	-	-	-	-	-
P01	B4	<i>RBI</i>	c.1641A[4>3]	p.K548Nfs*3	NM_000321.2	Frameshift	del	EX17	6.39
P01	B4	<i>SDHAF2</i>	c.341A>G	p.N114S	NM_017841.2	Missense	snv	EX3	3.27
P01	B4	<i>PTEN</i>	c.226T>C	p.Y76H	NM_000314.4	Missense	snv	EX4	2.82
P01	B4	<i>RECQL</i>	c.163G>T	p.A55S	NM_002907.3	Missense	snv	EX3	1.71
P01	B4	<i>FLT1</i>	c.3344A>T	p.E1115V	NM_002019.4	Missense	snv	EX25	1.54
P01	B4	<i>RICTOR</i>	c.4133G>T	p.S1378I	NM_152756.3	Missense	snv	EX31	0.70
P01	B4	<i>TP53</i>	c.460G[2>1]	p.G154Afs*16	NM_000546.5	Frameshift	del	EX5	4.39
P01	T1	<i>RBI</i>	c.1641A[4>3]	p.K548Nfs*3	NM_000321.2	Frameshift	del	EX17	80.44
P01	T1	<i>PTEN</i>	c.226T>C	p.Y76H	NM_000314.4	Missense	snv	EX4	60.36
P01	T1	<i>SDHAF2</i>	c.341A>G	p.N114S	NM_017841.2	Missense	snv	EX3	23.36
P01	T1	<i>FLT1</i>	c.3344A>T	p.E1115V	NM_002019.4	Missense	snv	EX25	9.21
P01	T1	<i>TP53</i>	c.460G[2>1]	p.G154Afs*16	NM_000546.5	Frameshift	del	EX5	61.40
P03	B1	<i>APC</i>	c.157G>C	p.G53R	NM_000038.5	Missense	snv	EX3	18.72
P03	B1	<i>APC</i>	c.4649A>G	p.E1550G	NM_000038.5	Missense	snv	EX16E	17.45
P03	B1	<i>ATR</i>	c.5439A>T	p.K1813N	NM_001184.3	Missense	snv	EX32	27.57
P03	B1	<i>AXIN1</i>	c.2313G>T	p.K771N	NM_003502.3	Missense	snv	EX10	17.24
P03	B1	<i>BCR</i>	c.3238C>T	p.R1080C	NM_004327.3	Missense	snv	EX19	3.87
P03	B1	<i>CDK4</i>	c.842A>G	p.H281R	NM_000075.3	Missense	snv	EX8E	16.92
P03	B1	<i>EPHA3</i>	c.121G>T	p.E41*	NM_005233.5	Nonsense	snv	EX2	19.08
P03	B1	<i>FAM123B</i>	c.1058G>A	p.R353Q	NM_152424.3	Missense	snv	EX2E	11.67
P03	B1	<i>FAM135B</i>	c.4105G>A	p.A1369T	NM_015912.3	Missense	snv	EX20E	18.57
P03	B1	<i>FAT1</i>	c.8986A>G	p.I2996V	NM_005245.3	Missense	snv	EX11	18.25
P03	B1	<i>FAT1</i>	c.6616G>C	p.A2206P	NM_005245.3	Missense	snv	EX10	17.02
P03	B1	<i>FAT1</i>	c.3973-2A>C	.	NM_005245.3	splice-3	snv	IVS5	14.84
P03	B1	<i>FLT4</i>	c.903C>A	p.S301R	NM_182925.4	Missense	snv	EX7	19.09
P03	B1	<i>GATA3</i>	c.524C>A	p.S175*	NM_002051.2	Nonsense	snv	EX3	16.71

P03	B1	<i>HGF</i>	c.942G>T	p.R314S	NM_000601.4	Missense	snv	EX8	19.18
P03	B1	<i>KDM6A</i>	c.4177-1G>T	.	NM_021140.2	splice-3	snv	IVS28	16.14
P03	B1	<i>KEL</i>	c.367A>G	p.T123A	NM_000420.2	Missense	snv	EX4	18.90
P03	B1	<i>LRP1B</i>	c.8270-1G>A	.	NM_018557.2	splice-3	snv	IVS51	18.70
P03	B1	<i>MLL3</i>	c.986A>T	p.E329V	NM_170606.2	Missense	snv	EX7	6.06
P03	B1	<i>MNDA</i>	c.576G>T	p.Q192H	NM_002432.1	Missense	snv	EX5	17.84
P03	B1	<i>MYCN</i>	c.544C>A	p.P182T	NM_005378.4	Missense	snv	EX2	24.85
P03	B1	<i>NF1</i>	c.5416A>G	p.I1806V	NM_000267.3	Missense	snv	EX37	20.89
P03	B1	<i>POLD1</i>	c.14G>T	p.R5L	NM_002691.3	Missense	snv	EX2	17.90
P03	B1	<i>RINT1</i>	c.1025T>C	p.M342T	NM_021930.4	Missense	snv	EX8	18.23
P03	B1	<i>RINT1</i>	c.775A>T	p.S259C	NM_021930.4	Missense	snv	EX6	17.08
P03	B1	<i>SDHD</i>	c.109G>T	p.D37Y	NM_003002.2	Missense	snv	EX2	20.07
P03	B1	<i>TCL1A</i>	c.254G>C	p.R85P	NM_021966.2	Missense	snv	EX2	15.17
P03	B1	<i>TET2</i>	c.3749A>C	p.E1250A	NM_001127208.2	Missense	snv	EX6	17.87
P03	B1	<i>TGFBR1</i>	c.1063G>A	p.A355T	NM_004612.2	Missense	snv	EX6	15.68
P03	B1	<i>TP53</i>	c.415A>T	p.K139*	NM_000546.5	Nonsense	snv	EX5	24.68
P03	B2	<i>POLE</i>	c.251ACT[2>1]	p.Y84[2>1]	NM_006231.2	cds-del	del	EX3	0.77
P03	B2	<i>TET2</i>	c.3749A>C	p.E1250A	NM_001127208.2	Missense	snv	EX6	0.44
P03	B2	<i>POLD1</i>	c.14G>T	p.R5L	NM_002691.3	Missense	snv	EX2	0.41
P03	B2	<i>FAT1</i>	c.6616G>C	p.A2206P	NM_005245.3	Missense	snv	EX10	0.37
P03	B2	<i>NF1</i>	c.5416A>G	p.I1806V	NM_000267.3	Missense	snv	EX37	0.33
P03	B4	<i>PTCH2</i>	c.285_301delGGA GCTGCATTACAC CA	p.E96Gfs*43	NM_001166292.1	Frameshift	del	EX3	0.61
P03	B4	<i>TP53</i>	c.1049T>C	p.L350P	NM_000546.5	Missense	snv	EX10	0.79
P04	B1	<i>CREBBP</i>	c.4309A>T	p.I1437F	NM_004380.2	Missense	snv	EX26	5.53
P04	B1	<i>CYP11A1</i>	c.1262G[3>2]	p.V422Sfs*22	NM_000499.3	Frameshift	del	EX7E	3.01
P04	B1	<i>FLT4</i>	c.955T>C	p.F319L	NM_182925.4	Missense	snv	EX7	1.87
P04	B1	<i>GALNT12</i>	c.1013A[4>3]	p.N339Tfs*72	NM_024642.4	Frameshift	del	EX5	1.74
P04	B1	<i>HOXB13</i>	c.213G[4>3]	p.T73Rfs*25	NM_006361.5	Frameshift	del	EX1	1.95
P04	B1	<i>KDR</i>	c.1085T>C	p.I362T	NM_002253.2	Missense	snv	EX8	3.21
P04	B1	<i>KDR</i>	c.2614+1_2614+2in sG	.	NM_002253.2	splice-5	ins	IVS18	2.71
P04	B1	<i>KDR</i>	c.1860C>A	p.S620R	NM_002253.2	Missense	snv	EX13	2.49
P04	B1	<i>MAP3K1</i>	c.1733A>G	p.N578S	NM_005921.1	Missense	snv	EX10	0.88
P04	B1	<i>POLE</i>	c.5744T>G	p.L1915R	NM_006231.2	Missense	snv	EX42	2.59
P04	B1	<i>SPOP</i>	c.216C[4>3]	p.L76*fs*1	NM_001007228.1	Frameshift	del	EX4	1.70
P04	B1	<i>TP53</i>	c.673-1G>C	.	NM_000546.5	splice-3	snv	IVS6	3.34
P04	B1	<i>TP53</i>	c.1049T>C	p.L350P	NM_000546.5	Missense	snv	EX10	0.84
P04	B2	<i>FLT4</i>	c.955T>C	p.F319L	NM_182925.4	Missense	snv	EX7	0.59
P04	B2	<i>TP53</i>	c.673-1G>C	.	NM_000546.5	splice-3	snv	IVS6	0.50
P04	B3	<i>MAP3K1</i>	c.1733A>G	p.N578S	NM_005921.1	Missense	snv	EX10	0.95
P04	B3	<i>NTRK3</i>	c.1553G>A	p.R518H	NM_001012338.2	Missense	snv	EX14	0.42

P04	B4	<i>RB1</i>	c.869_884delATGT TTATTTCAAAAA	p.N290Ifs*6	NM_000321.2	Frameshift	del	EX9	10.14
P04	B4	<i>CREBBP</i>	c.4309A>T	p.I1437F	NM_004380.2	Missense	snv	EX26	28.84
P04	B4	<i>KDR</i>	c.1085T>C	p.I362T	NM_002253.2	Missense	snv	EX8	17.97
P04	B4	<i>FLT4</i>	c.955T>C	p.F319L	NM_182925.4	Missense	snv	EX7	16.93
P04	B4	<i>CYP1A1</i>	c.1262G[3>2]	p.V422Sfs*22	NM_000499.3	Frameshift	del	EX7E	16.78
P04	B4	<i>KDR</i>	c.1860C>A	p.S620R	NM_002253.2	Missense	snv	EX13	15.87
P04	B4	<i>KDR</i>	c.2614+1_2614+2in sG	.	NM_002253.2	splice-5	ins	IVS18	15.54
P04	B4	<i>GALNT12</i>	c.1013A[4>3]	p.N339Tfs*72	NM_024642.4	Frameshift	del	EX5	15.12
P04	B4	<i>POLE</i>	c.5744T>G	p.L1915R	NM_006231.2	Missense	snv	EX42	13.47
P04	B4	<i>HOXB13</i>	c.213G[4>3]	p.T73Rfs*25	NM_006361.5	Frameshift	del	EX1	13.34
P04	B4	<i>MLL2</i>	c.15873G>T	p.E5291D	NM_003482.3	Missense	snv	EX49	12.83
P04	B4	<i>SPOP</i>	c.216C[4>3]	p.L76*fs*1	NM_001007228.1	Frameshift	del	EX4	12.38
P04	B4	<i>ZFXH3</i>	c.4395dupT	p.G1466Wfs*25	NM_006885.3	Frameshift	ins	EX9	8.35
P04	B4	<i>PDGFRB</i>	c.385C>T	p.P129S	NM_002609.3	Missense	snv	EX4	7.99
P04	B4	<i>IRF2</i>	c.529+2T>C	.	NM_002199.3	splice-5	snv	IVS6	1.21
P04	B4	<i>IGF1R</i>	c.3686G>C	p.G1229A	NM_000875.3	Missense	snv	EX20	0.97
P04	B4	<i>MLL2</i>	c.4165G>A	p.G1389R	NM_003482.3	Missense	snv	EX14	0.93
P04	B4	<i>MET</i>	c.74A>T	p.E25V	NM_000245.2	Missense	snv	EX2	0.85
P04	B4	<i>ATR</i>	c.3017C>A	p.A1006E	NM_001184.3	Missense	snv	EX15	0.50
P04	B4	<i>TP53</i>	c.673-1G>C	.	NM_000546.5	splice-3	snv	IVS6	18.12
P04	T1	<i>TP53</i>	c.673-1G>C	.	NM_000546.5	splice-3	snv	IVS6	1.57
P05	B1	<i>ABCA13</i>	c.10350T>A	p.H3450Q	NM_152701.3	Missense	snv	EX30	27.03
P05	B1	<i>AFF4</i>	c.1417C>G	p.Q473E	NM_014423.3	Missense	snv	EX11	6.78
P05	B1	<i>CDH23</i>	c.4825G>T	p.E1609*	NM_022124.5	Nonsense	snv	EX38	33.36
P05	B1	<i>FGF4</i>	c.503C>T	p.A168V	NM_002007.2	Missense	snv	EX3E	19.29
P05	B1	<i>GATA3</i>	c.1307C>A	p.S436Y	NM_002051.2	Missense	snv	EX6E	0.68
P05	B1	<i>MET</i>	c.1354A>G	p.I452V	NM_000245.2	Missense	snv	EX3	11.82
P05	B1	<i>NOTCH2</i>	c.4160G>A	p.G1387D	NM_024408.3	Missense	snv	EX25	25.21
P05	B1	<i>NOTCH2</i>	c.4706T>A	p.L1569Q	NM_024408.3	Missense	snv	EX26	10.41
P05	B1	<i>NOTCH3</i>	c.5510G>T	p.R1837L	NM_000435.2	Missense	snv	EX30	13.43
P05	B1	<i>PIK3R1</i>	c.999G>T	p.W333C	NM_181523.2	Missense	snv	EX8	0.65
P05	B1	<i>ROS1</i>	c.3863A>G	p.Y1288C	NM_002944.2	Missense	snv	EX25	20.21
P05	B1	<i>TAL1</i>	c.896C>A	p.A299D	NM_003189.2	Missense	snv	EX4E	22.93
P05	B1	<i>XRCC2</i>	c.260T>C	p.F87S	NM_005431.1	Missense	snv	EX3E	17.85
P05	B1	<i>TP53</i>	c.204G[2>1]	p.A69Lfs*54	NM_000546.5	Frameshift	del	EX4	29.06
P05	B2	<i>ARHGAP29</i>	c.2392C>G	p.R798G	NM_004815.3	Missense	snv	EX20	0.55
P05	T1	<i>CDH23</i>	c.4825G>T	p.E1609*	NM_022124.5	Nonsense	snv	EX38	33.58
P05	T1	<i>NOTCH2</i>	c.4160G>A	p.G1387D	NM_024408.3	Missense	snv	EX25	31.07
P05	T1	<i>ABCA13</i>	c.10350T>A	p.H3450Q	NM_152701.3	Missense	snv	EX30	28.82
P05	T1	<i>ROS1</i>	c.3863A>G	p.Y1288C	NM_002944.2	Missense	snv	EX25	24.91
P05	T1	<i>TAL1</i>	c.896C>A	p.A299D	NM_003189.2	Missense	snv	EX4E	24.11

P05	T1	<i>FGF4</i>	c.503C>T	p.A168V	NM_002007.2	Missense	snv	EX3E	23.60
P05	T1	<i>AFF4</i>	c.1417C>G	p.Q473E	NM_014423.3	Missense	snv	EX11	16.43
P05	T1	<i>MET</i>	c.1354A>G	p.I452V	NM_000245.2	Missense	snv	EX3	16.22
P05	T1	<i>NOTCH3</i>	c.5510G>T	p.R1837L	NM_000435.2	Missense	snv	EX30	14.74
P05	T1	<i>NOTCH2</i>	c.4706T>A	p.L1569Q	NM_024408.3	Missense	snv	EX26	14.59
P05	T1	<i>XRCC2</i>	c.260T>C	p.F87S	NM_005431.1	Missense	snv	EX3E	14.09
P05	T1	<i>TP53</i>	c.204G[2>1]	p.A69Lfs*54	NM_000546.5	Frameshift	del	EX4	38.87
P06	B1	<i>RB1</i>	c.214G>T	p.E72*	NM_000321.2	Nonsense	snv	EX2	1.00
P06	B1	<i>ATR</i>	c.2652G[2>1]	p.V885Yfs*54	NM_001184.3	Frameshift	del	EX13	0.53
P06	B1	<i>BRCA2</i>	c.6841G>A	p.G2281R	NM_000059.3	Missense	snv	EX11	1.43
P06	B1	<i>CDK13</i>	c.3980_3981delACi nsTT	p.D1327V	NM_003718.4	Missense	delins	EX14E	1.12
P06	B1	<i>DICER1</i>	c.3367A[2>1]	p.K1123Sfs*21	NM_030621.3	Frameshift	del	EX22	1.11
P06	B1	<i>EME2</i>	c.206C>T	p.P69L	NM_001257370.1	Missense	snv	EX1	1.62
P06	B1	<i>JAK2</i>	c.1204_1205delGGi nsAT	p.G402I	NM_004972.3	Missense	delins	EX9	0.90
P06	B1	<i>LRP1B</i>	c.13072G>T	p.V4358F	NM_018557.2	Missense	snv	EX85	2.78
P06	B1	<i>NFE2L2</i>	c.239C>G	p.T80R	NM_006164.4	Missense	snv	EX2	1.96
P06	B1	<i>SMAD4</i>	c.414_415delAC	p.P139Wfs*3	NM_005359.5	Frameshift	del	EX3	1.68
P06	B1	<i>TP53</i>	c.797G>T	p.G266V	NM_000546.5	Missense	snv	EX8	1.49
P06	B1	<i>TP53</i>	c.309C>A	p.Y103*	NM_000546.5	Nonsense	snv	EX4	0.66
P06	B2	<i>RB1</i>	c.214G>T	p.E72*	NM_000321.2	Nonsense	snv	EX2	0.32
P06	B2	<i>NFE2L2</i>	c.239C>G	p.T80R	NM_006164.4	Missense	snv	EX2	0.66
P06	B2	<i>LRP1B</i>	c.13072G>T	p.V4358F	NM_018557.2	Missense	snv	EX85	0.66
P06	B2	<i>DNMT3A</i>	c.1961G>T	p.G654V	NM_022552.4	Missense	snv	EX17	1
P06	B2	<i>TSHZ3</i>	c.365A>T	p.Y122F	NM_020856.2	Missense	snv	EX2E	0.60
P06	B2	<i>ERCC5</i>	c.1955-1G>A	.	NM_000123.3	splice-3	snv	IVS8	0.37
P06	B2	<i>GRM3</i>	c.977C>A	p.A326D	NM_000840.2	Missense	snv	EX3	0.30
P06	B2	<i>TP53</i>	c.309C>A	p.Y103*	NM_000546.5	Nonsense	snv	EX4	0.34
P06	B2	<i>TP53</i>	c.797G>T	p.G266V	NM_000546.5	Missense	snv	EX8	0.33
P06	B4	<i>RB1</i>	c.214G>T	p.E72*	NM_000321.2	Nonsense	snv	EX2	38.67
P06	B4	<i>BRCA2</i>	c.6841G>A	p.G2281R	NM_000059.3	Missense	snv	EX11	35.51
P06	B4	<i>NFE2L2</i>	c.239C>G	p.T80R	NM_006164.4	Missense	snv	EX2	32.67
P06	B4	<i>LRP1B</i>	c.13072G>T	p.V4358F	NM_018557.2	Missense	snv	EX85	29.71
P06	B4	<i>ERCC5</i>	c.1955-1G>A	.	NM_000123.3	splice-3	snv	IVS8	27.67
P06	B4	<i>DICER1</i>	c.3367A[2>1]	p.K1123Sfs*21	NM_030621.3	Frameshift	del	EX22	27.34
P06	B4	<i>GRM3</i>	c.977C>A	p.A326D	NM_000840.2	Missense	snv	EX3	26.50
P06	B4	<i>CDK13</i>	c.3980_3981delACi nsTT	p.D1327V	NM_003718.4	Missense	delins	EX14E	25.80
P06	B4	<i>JAK2</i>	c.1204_1205delGGi nsAT	p.G402I	NM_004972.3	Missense	delins	EX9	25.24
P06	B4	<i>LRP1B</i>	c.6316G>C	p.G2106R	NM_018557.2	Missense	snv	EX40	22.90
P06	B4	<i>TSHZ3</i>	c.365A>T	p.Y122F	NM_020856.2	Missense	snv	EX2E	19.09

P06	B4	<i>ATR</i>	c.2652G[2>1]	p.V885Yfs*54	NM_001184.3	Frameshift	del	EX13	18.16
P06	B4	<i>ROS1</i>	c.5453A>T	p.K1818M	NM_002944.2	Missense	snv	EX33	3.57
P06	B4	<i>TGFBR1</i>	c.1129A>T	p.R377W	NM_004612.2	Missense	snv	EX6	0.75
P06	B4	<i>NTRK2</i>	c.1364_1365delAGi nsTT	p.K455I	NM_006180.3	Missense	delins	EX14	0.68
P06	B4	<i>NTRK2</i>	c.395G>T	p.R132M	NM_006180.3	Missense	snv	EX7	0.59
P06	B4	<i>ITK</i>	c.1186_1187delGGi nsAT	p.G396M	NM_005546.3	Missense	delins	EX12	0.51
P06	B4	<i>TP53</i>	c.309C>A	p.Y103*	NM_000546.5	Nonsense	snv	EX4	29.48
P06	B4	<i>TP53</i>	c.797G>T	p.G266V	NM_000546.5	Missense	snv	EX8	28.00
P06	T1	<i>RB1</i>	c.214G>T	p.E72*	NM_000321.2	Nonsense	snv	EX2	72.22
P06	T1	<i>RB1</i>	c.1641A[4>3]	p.K548Nfs*3	NM_000321.2	Frameshift	del	EX17	3.98
P06	T1	<i>NFE2L2</i>	c.239C>G	p.T80R	NM_006164.4	Missense	snv	EX2	86.37
P06	T1	<i>LRP1B</i>	c.13072G>T	p.V4358F	NM_018557.2	Missense	snv	EX85	83.52
P06	T1	<i>BRCA2</i>	c.6841G>A	p.G2281R	NM_000059.3	Missense	snv	EX11	73.27
P06	T1	<i>CDK13</i>	c.3980_3981delACi nsTT	p.D1327V	NM_003718.4	Missense	delins	EX14E	43.17
P06	T1	<i>TSHZ3</i>	c.365A>T	p.Y122F	NM_020856.2	Missense	snv	EX2E	42.86
P06	T1	<i>ROS1</i>	c.5453A>T	p.K1818M	NM_002944.2	Missense	snv	EX33	41.74
P06	T1	<i>EME2</i>	c.206C>T	p.P69L	NM_001257370.1	Missense	snv	EX1	41.49
P06	T1	<i>JAK2</i>	c.1204_1205delGGi nsAT	p.G402I	NM_004972.3	Missense	delins	EX9	41.04
P06	T1	<i>DICER1</i>	c.3367A[2>1]	p.K1123Sfs*21	NM_030621.3	Frameshift	del	EX22	38.54
P06	T1	<i>BCL2L1</i>	gain		NM_138578.1		cnv	EX2- EX3E	455.88
P06	T1	<i>TP53</i>	c.309C>A	p.Y103*	NM_000546.5	Nonsense	snv	EX4	42.91
P06	T1	<i>TP53</i>	c.797G>T	p.G266V	NM_000546.5	Missense	snv	EX8	41.10
P07	B1	<i>BRAF</i>	c.977T>C	p.I326T	NM_004333.4	Missense	snv	EX7	2.87
P07	B1	<i>EGFR</i>	c.2573T>G	p.L858R	NM_005228.3	Missense	snv	EX21	36.84
P07	B1	<i>FANCA</i>	c.4321C>T	p.Q1441*	NM_000135.2	Nonsense	snv	EX43E	22.90
P07	B1	<i>MITF</i>	c.1136A>C	p.N379T	NM_198159.2	Missense	snv	EX9	19.90
P07	B1	<i>MLL3</i>	c.1058T>G	p.L353R	NM_170606.2	Missense	snv	EX8	5.75
P07	B1	<i>PARK2</i>	c.1000C>T	p.R334C	NM_004562.2	Missense	snv	EX9	4.59
P07	B1	<i>TP73</i>	c.88G>A	p.D30N	NM_005427.3	Missense	snv	EX3	14.19
P07	B1	<i>TP53</i>	c.734G>A	p.G245D	NM_000546.5	Missense	snv	EX7	46.93
P07	B2	<i>DDR2</i>	c.991G>A	p.A331T	NM_006182.2	Missense	snv	EX9	1.12
P07	B2	<i>EGFR</i>	c.2573T>G	p.L858R	NM_005228.3	Missense	snv	EX21	0.35
P07	B2	<i>TP73</i>	c.88G>A	p.D30N	NM_005427.3	Missense	snv	EX3	0.24
P07	B2	<i>TP53</i>	c.734G>A	p.G245D	NM_000546.5	Missense	snv	EX7	0.54
P07	B3	<i>DDR2</i>	c.991G>A	p.A331T	NM_006182.2	Missense	snv	EX9	0.65
P07	T1	<i>EGFR</i>	c.2573T>G	p.L858R	NM_005228.3	Missense	snv	EX21	55.97
P07	T1	<i>FANCA</i>	c.4321C>T	p.Q1441*	NM_000135.2	Nonsense	snv	EX43E	44.35
P07	T1	<i>MITF</i>	c.1136A>C	p.N379T	NM_198159.2	Missense	snv	EX9	28.05

P07	T1	<i>TP73</i>	c.88G>A	p.D30N	NM_005427.3	Missense	snv	EX3	21.24
P07	T1	<i>BRAF</i>	c.977T>C	p.I326T	NM_004333.4	Missense	snv	EX7	4.16
P07	T1	<i>PDGFRB</i>	c.2558G>C	p.R853P	NM_002609.3	Missense	snv	EX18	1.79
P07	T1	<i>NF1</i>	c.4622T>A	p.L1541H	NM_000267.3	Missense	snv	EX34	1.15
P07	T1	<i>MTOR</i>	gain		NM_004958.3		cnv	EX2- EX58E	516.45
P07	T1	<i>SDHB</i>	gain		NM_003000.2		cnv	EX1- EX8E	358.91
P07	T1	<i>TP53</i>	c.734G>A	p.G245D	NM_000546.5	Missense	snv	EX7	83.37
P08	B1	<i>ABCC11</i>	c.1754G>T	p.S585I	NM_032583.3	Missense	snv	EX13	53.98
P08	B1	<i>CDH23</i>	c.2446A>T	p.S816C	NM_022124.5	Missense	snv	EX23	8.00
P08	B1	<i>CDK8</i>	c.598C>T	p.R200*	NM_001260.1	Nonsense	snv	EX6	0.43
P08	B1	<i>CYP2C8</i>	c.326G>T	p.G109V	NM_000770.3	Missense	snv	EX2	50.63
P08	B1	<i>EP300</i>	c.4540G>A	p.E1514K	NM_001429.3	Missense	snv	EX28	50.61
P08	B1	<i>EPHA5</i>	c.1424T>G	p.V475G	NM_004439.5	Missense	snv	EX6	1.28
P08	B1	<i>ERBB4</i>	c.456C>A	p.N152K	NM_005235.2	Missense	snv	EX4	31.02
P08	B1	<i>IGF2R</i>	c.5057C>T	p.T1686I	NM_000876.2	Missense	snv	EX35	0.57
P08	B1	<i>LRP1B</i>	c.13705G>T	p.G4569W	NM_018557.2	Missense	snv	EX91E	32.97
P08	B1	<i>LRP1B</i>	c.11029G>A	p.D3677N	NM_018557.2	Missense	snv	EX72	31.50
P08	B1	<i>TNFAIP3</i>	c.1811C>T	p.T604M	NM_006290.3	Missense	snv	EX7	0.40
P08	B1	<i>TP53</i>	c.874_875insG	p.K292Rfs*14	NM_000546.5	Frameshift	ins	EX8	56.20
P08	B2	-	-	-	-	-	-	-	-
P08	T1	<i>CYP2C8</i>	c.326G>T	p.G109V	NM_000770.3	Missense	snv	EX2	88.04
P08	T1	<i>EP300</i>	c.4540G>A	p.E1514K	NM_001429.3	Missense	snv	EX28	87.06
P08	T1	<i>ABCC11</i>	c.1754G>T	p.S585I	NM_032583.3	Missense	snv	EX13	86.94
P08	T1	<i>ERBB4</i>	c.456C>A	p.N152K	NM_005235.2	Missense	snv	EX4	45.28
P08	T1	<i>LRP1B</i>	c.13705G>T	p.G4569W	NM_018557.2	Missense	snv	EX91E	44.80
P08	T1	<i>LRP1B</i>	c.11029G>A	p.D3677N	NM_018557.2	Missense	snv	EX72	41.34
P08	T1	<i>CDK8</i>	c.598C>T	p.R200*	NM_001260.1	Nonsense	snv	EX6	3.11
P08	T1	<i>TNFAIP3</i>	c.1811C>T	p.T604M	NM_006290.3	Missense	snv	EX7	2.70
P08	T1	<i>BRD2</i>	c.2300A>T	p.K767I	NM_001199455.1	Missense	snv	EX12	1.09
P08	T1	<i>GNAI1</i>	c.65A>T	p.N22I	NM_002067.2	Missense	snv	EX1	1.08
P08	T1	<i>TP53</i>	c.874_875insG	p.K292Rfs*14	NM_000546.5	Frameshift	ins	EX8	84.92
P09	B1	<i>ARID1A</i>	c.3568G>A	p.A1190T	NM_006015.4	Missense	snv	EX14	4.85
P09	B1	<i>EGFR</i>	c.3502G>T	p.D1168Y	NM_005228.3	Missense	snv	EX28E	4.64
P09	B1	<i>EPHA1</i>	c.208C>G	p.P70A	NM_005232.4	Missense	snv	EX3	6.00
P09	B1	<i>LRP2</i>	c.10388C>A	p.P3463H	NM_004525.2	Missense	snv	EX53	4.35
P09	B1	<i>NOTCH3</i>	c.5815G[3>2]	p.K1940Nfs*10	NM_000435.2	Frameshift	del	EX32	4.07
P09	B1	<i>PDGFRA</i>	c.384T>G	p.F128L	NM_006206.4	Missense	snv	EX4	5.99
P09	B1	<i>TCF7L2</i>	c.1766C>G	p.T589S	NM_001146274.1	Missense	snv	EX14E	4.11
P09	B1	<i>ZFX3</i>	c.6261G>T	p.Q2087H	NM_006885.3	Missense	snv	EX9	1.15
P09	B1	<i>TP53</i>	c.313G>T	p.G105C	NM_000546.5	Missense	snv	EX4	7.36
P09	B1	<i>TP53</i>	c.646G>T	p.V216L	NM_000546.5	Missense	snv	EX6	6.56

P09	B1	<i>TP53</i>	c.473G>A	p.R158H	NM_000546.5	Missense	snv	EX5	0.27
P09	B2	<i>TP53</i>	c.761T>G	p.I254S	NM_000546.5	Missense	snv	EX7	0.22
P09	B3	<i>TP53</i>	c.761T>G	p.I254S	NM_000546.5	Missense	snv	EX7	1.48
P09	B3	<i>TP53</i>	c.473G>A	p.R158H	NM_000546.5	Missense	snv	EX5	0.53
P09	T1	<i>TCF7L2</i>	c.1766C>G	p.T589S	NM_001146274.1	Missense	snv	EX14E	41.08
P09	T1	<i>ZFXH3</i>	c.6261G>T	p.Q2087H	NM_006885.3	Missense	snv	EX9	34.55
P09	T1	<i>LRP2</i>	c.10388C>A	p.P3463H	NM_004525.2	Missense	snv	EX53	29.50
P09	T1	<i>ARID1A</i>	c.3568G>A	p.A1190T	NM_006015.4	Missense	snv	EX14	27.43
P09	T1	<i>EGFR</i>	c.3502G>T	p.D1168Y	NM_005228.3	Missense	snv	EX28E	26.99
P09	T1	<i>PDGFRA</i>	c.384T>G	p.F128L	NM_006206.4	Missense	snv	EX4	26.74
P09	T1	<i>EPHA1</i>	c.208C>G	p.P70A	NM_005232.4	Missense	snv	EX3	25.53
P09	T1	<i>NOTCH3</i>	c.5815G[3>2]	p.K1940Nfs*10	NM_000435.2	Frameshift	del	EX32	25.52
P09	T1	<i>TP53</i>	c.313G>T	p.G105C	NM_000546.5	Missense	snv	EX4	28.89
P09	T1	<i>TP53</i>	c.646G>T	p.V216L	NM_000546.5	Missense	snv	EX6	24.98
P10	B1	<i>RB1</i>	c.2077_2082delGA ACTC	p.E693_L694del	NM_000321.2	cds-del	del	EX20	1.91
P10	B1	<i>BRIP1</i>	c.3736C>T	p.P1246S	NM_032043.2	Missense	snv	EX20E	1.57
P10	B1	<i>EPHA3</i>	c.1607C>T	p.S536F	NM_005233.5	Missense	snv	EX8	0.68
P10	B1	<i>FAM123B</i>	c.2362T>G	p.C788G	NM_152424.3	Missense	snv	EX2E	1.79
P10	B1	<i>MPL</i>	c.1473G>A	p.W491*	NM_005373.2	Nonsense	snv	EX10	2.00
P10	B1	<i>PSG2</i>	c.758C>T	p.S253L	NM_031246.3	Missense	snv	EX4	0.51
P10	B1	<i>SH2B3</i>	c.3G>C	p.0?	NM_005475.2	init-loss	snv	EX2	2.59
P10	B1	<i>TP53</i>	c.538G>T	p.E180*	NM_000546.5	Nonsense	snv	EX5	2.86
P10	T1	<i>RB1</i>	c.2077_2082delGA ACTC	p.E693_L694del	NM_000321.2	cds-del	del	EX20	64.88
P10	T1	<i>OPCML</i>	c.176T>G	p.V59G	NM_001012393.1	Missense	snv	EX3	43.37
P10	T1	<i>SH2B3</i>	c.3G>C	p.0?	NM_005475.2	init-loss	snv	EX2	40.88
P10	T1	<i>MPL</i>	c.1473G>A	p.W491*	NM_005373.2	Nonsense	snv	EX10	40.58
P10	T1	<i>BRIP1</i>	c.3736C>T	p.P1246S	NM_032043.2	Missense	snv	EX20E	40.26
P10	T1	<i>FAM123B</i>	c.2362T>G	p.C788G	NM_152424.3	Missense	snv	EX2E	40.13
P10	T1	<i>MED12</i>	c.1539C>A	p.S513R	NM_005120.2	Missense	snv	EX11	39.41
P10	T1	<i>TP53</i>	c.538G>T	p.E180*	NM_000546.5	Nonsense	snv	EX5	77.06
P11	B1	<i>ABCC11</i>	c.3991G>T	p.V1331F	NM_032583.3	Missense	snv	EX29	0.73
P11	B1	<i>CASQ2</i>	c.1134T>A	p.D378E	NM_001232.3	Missense	snv	EX11E	0.63
P11	B1	<i>CDK12</i>	c.965G>A	p.R322Q	NM_016507.2	Missense	snv	EX1	0.51
P11	B1	<i>DDR2</i>	c.1211G>A	p.C404Y	NM_006182.2	Missense	snv	EX11	0.28
P11	B1	<i>ERBB4</i>	c.2712G>C	p.W904C	NM_005235.2	Missense	snv	EX22	0.45
P11	B1	<i>FCGR3A</i>	c.286C>A	p.L96I	NM_001127593.1	Missense	snv	EX4	0.40
P11	B1	<i>GRM3</i>	c.2577C>A	p.S859R	NM_000840.2	Missense	snv	EX6E	0.53
P11	B1	<i>HNF1A</i>	c.742_743delCCins AT	p.P248I	NM_000545.5	Missense	delins	EX4	0.35
P11	B1	<i>ING1</i>	c.379G>T	p.G127C	NM_198217.2	Missense	snv	EX2E	0.61
P11	B1	<i>NBN</i>	c.980G>T	p.G327V	NM_002485.4	Missense	snv	EX8	0.74

P11	B1	<i>PTCH2</i>	c.616C>G	p.P206A	NM_001166292.1	Missense	snv	EX5	0.60
P11	B1	<i>SLX4</i>	c.3648G>T	p.Q1216H	NM_032444.2	Missense	snv	EX12	0.63
P11	B1	<i>STK11</i>	c.257G>A	p.R86Q	NM_000455.4	Missense	snv	EX1	0.55
P11	B1	<i>XRCC2</i>	c.121G>T	p.G41C	NM_005431.1	Missense	snv	EX2	0.50
P11	B1	<i>TP53</i>	c.745A>G	p.R249G	NM_000546.5	Missense	snv	EX7	1.35
P11	B2	<i>ING1</i>	c.379G>T	p.G127C	NM_198217.2	Missense	snv	EX2E	0.25
P11	T1	<i>SLX4</i>	c.3648G>T	p.Q1216H	NM_032444.2	Missense	snv	EX12	62.07
P11	T1	<i>CREBBP</i>	c.4307G>A	p.S1436N	NM_004380.2	Missense	snv	EX26	62
P11	T1	<i>TMEM132D</i>	c.612C>A	p.S204R	NM_133448.2	Missense	snv	EX2	55.99
P11	T1	<i>SOX10</i>	c.629C>A	p.A210D	NM_006941.3	Missense	snv	EX3	47.80
P11	T1	<i>GRM3</i>	c.2577C>A	p.S859R	NM_000840.2	Missense	snv	EX6E	47.59
P11	T1	<i>CTCF</i>	c.78G>T	p.Q26H	NM_006565.3	Missense	snv	EX3	47.47
P11	T1	<i>PIK3R2</i>	c.1953G>T	p.Q651H	NM_005027.2	Missense	snv	EX15	47.29
P11	T1	<i>MLL2</i>	c.10531G>T	p.E3511*	NM_003482.3	Nonsense	snv	EX38	47.06
P11	T1	<i>SRSF2</i>	c.166G>C	p.G56R	NM_003016.4	Missense	snv	EX1	46.46
P11	T1	<i>ABCC11</i>	c.3991G>T	p.V1331F	NM_032583.3	Missense	snv	EX29	46.28
P11	T1	<i>FGF14</i>	c.529T>C	p.F177L	NM_175929.2	Missense	snv	EX4	45.94
P11	T1	<i>NTRK3</i>	c.396-1G>T	.	NM_001012338.2	splice-3	snv	IVS5	45.12
P11	T1	<i>SOX17</i>	c.1108G>T	p.V370L	NM_022454.3	Missense	snv	EX2E	44.59
P11	T1	<i>DDR2</i>	c.1211G>A	p.C404Y	NM_006182.2	Missense	snv	EX11	44.50
P11	T1	<i>BRIP1</i>	c.35G>T	p.G12V	NM_032043.2	Missense	snv	EX2	44.22
P11	T1	<i>PTCH2</i>	c.616C>G	p.P206A	NM_001166292.1	Missense	snv	EX5	43.99
P11	T1	<i>NBN</i>	c.980G>T	p.G327V	NM_002485.4	Missense	snv	EX8	42.79
P11	T1	<i>ERBB4</i>	c.2712G>C	p.W904C	NM_005235.2	Missense	snv	EX22	41.51
P11	T1	<i>XRCC2</i>	c.121G>T	p.G41C	NM_005431.1	Missense	snv	EX2	40.62
P11	T1	<i>HNF1A</i>	c.742_743delCCins AT	p.P248I	NM_000545.5	Missense	delins	EX4	39.93
P11	T1	<i>MAP2K2</i>	c.1075G>T	p.D359Y	NM_030662.3	Missense	snv	EX10	39.72
P11	T1	<i>ING1</i>	c.379G>T	p.G127C	NM_198217.2	Missense	snv	EX2E	39.03
P11	T1	<i>CDH18</i>	c.2063G>T	p.R688L	NM_004934.3	Missense	snv	EX13E	34.46
P11	T1	<i>AR</i>	c.561G>C	p.E187D	NM_000044.3	Missense	snv	EX1	32.05
P11	T1	<i>FCGR3A</i>	c.286C>A	p.L96I	NM_001127593.1	Missense	snv	EX4	28.98
P11	T1	<i>LRP1B</i>	c.2369G>A	p.R790Q	NM_018557.2	Missense	snv	EX14	5.73
P11	T1	<i>LRP1B</i>	c.1157G>T	p.W386L	NM_018557.2	Missense	snv	EX8	1.77
P11	T1	<i>MYC</i>	gain		NM_002467.4		cnv	EX1- EX3E	1573.98
P11	T1	<i>TP53</i>	c.745A>G	p.R249G	NM_000546.5	Missense	snv	EX7	84.72
P12	B1	<i>RB1</i>	c.1448AT[2>1]	p.M484Vfs*8	NM_000321.2	Frameshift	del	EX16	10.92
P12	B1	<i>BRCA2</i>	c.316G>C	p.G106R	NM_000059.3	Missense	snv	EX3	8.70
P12	B1	<i>CHEK2</i>	c.1208G>T	p.G403V	NM_007194.3	Missense	snv	EX11	4.01
P12	B1	<i>EPHA2</i>	c.562T>A	p.C188S	NM_004431.3	Missense	snv	EX3	4.60
P12	B1	<i>EPHB1</i>	c.346G>C	p.E116Q	NM_004441.4	Missense	snv	EX3	1.73
P12	B1	<i>ERRF11</i>	c.58C>G	p.L20V	NM_018948.3	Missense	snv	EX2	6.12

P12	B1	<i>HIST1H3H</i>	c.260G>C	p.S87T	NM_003536.2	Missense	snv	EX1E	10.75
P12	B1	<i>IRS2</i>	c.1237G>T	p.G413W	NM_003749.2	Missense	snv	EX1	17.63
P12	B1	<i>JAK3</i>	c.1657G>T	p.V553L	NM_000215.3	Missense	snv	EX12	14.38
P12	B1	<i>LRP1B</i>	c.10355A>T	p.K3452M	NM_018557.2	Missense	snv	EX66	8.80
P12	B1	<i>MET</i>	c.563T>G	p.V188G	NM_000245.2	Missense	snv	EX2	3.78
P12	B1	<i>MLL3</i>	c.10477A>G	p.I3493V	NM_170606.2	Missense	snv	EX43	2.77
P12	B1	<i>MSH3</i>	c.2336G>C	p.R779P	NM_002439.4	Missense	snv	EX17	9.92
P12	B1	<i>PIK3CA</i>	c.1633G>A	p.E545K	NM_006218.2	Missense	snv	EX10	3.58
P12	B1	<i>POLE</i>	c.6421G>C	p.E2141Q	NM_006231.2	Missense	snv	EX46	6.21
P12	B1	<i>PTCH1</i>	c.1148C>T	p.S383L	NM_000264.3	Missense	snv	EX8	2.89
P12	B1	<i>SF3B1</i>	c.3880A>G	p.T1294A	NM_012433.2	Missense	snv	EX25E	7.20
P12	B1	<i>SMARCA4</i>	c.917A>T	p.Q306L	NM_003072.3	Missense	snv	EX6	13.36
P12	B1	<i>SMARCE1</i>	c.1072_1075delins AAAT	p.E358_E359delins K*	NM_003079.4	cds-delins	delins	EX11E	3.66
P12	B1	<i>SMARCE1</i>	c.934G>T	p.E312*	NM_003079.4	Nonsense	snv	EX10	3.33
P12	B1	<i>TSHR</i>	c.290_292delTCT	p.F97del	NM_000369.2	cds-del	del	EX3	1.54
P12	B1	<i>TP53</i>	c.783-1G>T	.	NM_000546.5	splice-3	snv	IVS7	9.07
P12	B3	<i>RB1</i>	c.1448AT[2>1]	p.M484Vfs*8	NM_000321.2	Frameshift	del	EX16	9.22
P12	B3	<i>HIST1H3H</i>	c.260G>C	p.S87T	NM_003536.2	Missense	snv	EX1E	16.06
P12	B3	<i>JAK3</i>	c.1657G>T	p.V553L	NM_000215.3	Missense	snv	EX12	15.17
P12	B3	<i>SMARCA4</i>	c.917A>T	p.Q306L	NM_003072.3	Missense	snv	EX6	11.56
P12	B3	<i>MSH3</i>	c.2336G>C	p.R779P	NM_002439.4	Missense	snv	EX17	10
P12	B3	<i>BRCA2</i>	c.316G>C	p.G106R	NM_000059.3	Missense	snv	EX3	8.98
P12	B3	<i>POLE</i>	c.6421G>C	p.E2141Q	NM_006231.2	Missense	snv	EX46	7.76
P12	B3	<i>LRP1B</i>	c.10355A>T	p.K3452M	NM_018557.2	Missense	snv	EX66	5.82
P12	B3	<i>ERRF1</i>	c.58C>G	p.L20V	NM_018948.3	Missense	snv	EX2	5.50
P12	B3	<i>SF3B1</i>	c.3880A>G	p.T1294A	NM_012433.2	Missense	snv	EX25E	5.31
P12	B3	<i>PIK3CA</i>	c.1633G>A	p.E545K	NM_006218.2	Missense	snv	EX10	4.50
P12	B3	<i>CHEK2</i>	c.1208G>T	p.G403V	NM_007194.3	Missense	snv	EX11	4.01
P12	B3	<i>MET</i>	c.563T>G	p.V188G	NM_000245.2	Missense	snv	EX2	3.80
P12	B3	<i>EPHA2</i>	c.562T>A	p.C188S	NM_004431.3	Missense	snv	EX3	3.75
P12	B3	<i>PTCH1</i>	c.1148C>T	p.S383L	NM_000264.3	Missense	snv	EX8	3.72
P12	B3	<i>TSHR</i>	c.290_292delTCT	p.F97del	NM_000369.2	cds-del	del	EX3	2.52
P12	B3	<i>SMARCE1</i>	c.934G>T	p.E312*	NM_003079.4	Nonsense	snv	EX10	1.01
P12	B3	<i>SMARCE1</i>	c.1072_1075delins AAAT	p.E358_E359delins K*	NM_003079.4	cds-delins	delins	EX11E	0.88
P12	B3	<i>TP53</i>	c.783-1G>T	.	NM_000546.5	splice-3	snv	IVS7	8.20
P12	T1	<i>RB1</i>	c.1448AT[2>1]	p.M484Vfs*8	NM_000321.2	Frameshift	del	EX16	66.40
P12	T1	<i>SMARCA4</i>	c.917A>T	p.Q306L	NM_003072.3	Missense	snv	EX6	74.52
P12	T1	<i>JAK3</i>	c.1657G>T	p.V553L	NM_000215.3	Missense	snv	EX12	73.25
P12	T1	<i>HIST1H3H</i>	c.260G>C	p.S87T	NM_003536.2	Missense	snv	EX1E	71.27
P12	T1	<i>MSH3</i>	c.2336G>C	p.R779P	NM_002439.4	Missense	snv	EX17	69.20
P12	T1	<i>BRCA2</i>	c.316G>C	p.G106R	NM_000059.3	Missense	snv	EX3	68.80

P12	T1	<i>IRS2</i>	c.1237G>T	p.G413W	NM_003749.2	Missense	snv	EX1	46.33
P12	T1	<i>SF3B1</i>	c.3880A>G	p.T1294A	NM_012433.2	Missense	snv	EX25E	43.62
P12	T1	<i>LRP1B</i>	c.10355A>T	p.K3452M	NM_018557.2	Missense	snv	EX66	42.16
P12	T1	<i>DNAH6</i>	c.2324T[5>4]	p.F776Lfs*4	NM_001370.1	Frameshift	del	EX15	37.40
P12	T1	<i>CHEK2</i>	c.1208G>T	p.G403V	NM_007194.3	Missense	snv	EX11	32.57
P12	T1	<i>POLE</i>	c.6421G>C	p.E2141Q	NM_006231.2	Missense	snv	EX46	30.81
P12	T1	<i>EPHA2</i>	c.562T>A	p.C188S	NM_004431.3	Missense	snv	EX3	25.68
P12	T1	<i>ERRF11</i>	c.58C>G	p.L20V	NM_018948.3	Missense	snv	EX2	24.38
P12	T1	<i>MET</i>	c.563T>G	p.V188G	NM_000245.2	Missense	snv	EX2	23.56
P12	T1	<i>TSHR</i>	c.290_292delTCT	p.F97del	NM_000369.2	cds-del	del	EX3	21.46
P12	T1	<i>PTCH1</i>	c.1148C>T	p.S383L	NM_000264.3	Missense	snv	EX8	18.83
P12	T1	<i>SMARCE1</i>	c.934G>T	p.E312*	NM_003079.4	Nonsense	snv	EX10	13.72
P12	T1	<i>SMARCE1</i>	c.1072_1075delins AAAT	p.E358_E359delins K*	NM_003079.4	cds-delins	delins	EX11E	11.58
P12	T1	<i>PIK3CA</i>	c.1633G>A	p.E545K	NM_006218.2	Missense	snv	EX10	11.41
P12	T1	<i>MLL3</i>	c.322C>T	p.L108F	NM_170606.2	Missense	snv	EX3	6.08
P12	T1	<i>CDKN2A</i>	loss		NM_000077.4		cnv	EX1- EX3E	23.49
P12	T1	<i>CDKN2B</i>	loss		NM_004936.3		cnv	EX1- EX2E	32.27
P12	T1	<i>TP53</i>	c.783-1G>T	.	NM_000546.5	splice-3	snv	IVS7	67.67
P13	B1	<i>RB1</i>	c.1496_1498+1delG CAG	.	NM_000321.2	span	del	EX16- IVS16	1.50
P13	B1	<i>CBR3</i>	c.749C[4>3]	p.P251Lfs*44	NM_001236.3	Frameshift	del	EX3E	2.10
P13	B1	<i>DDR2</i>	c.1238T>C	p.L413P	NM_006182.2	Missense	snv	EX11	1.70
P13	B1	<i>FAM123B</i>	c.2012C>G	p.S671*	NM_152424.3	Nonsense	snv	EX2E	3.34
P13	B1	<i>GABRA6</i>	c.1160C>A	p.A387D	NM_000811.2	Missense	snv	EX9E	2.10
P13	B1	<i>HDAC4</i>	c.1610A>G	p.D537G	NM_006037.3	Missense	snv	EX13	2.11
P13	B1	<i>IGF1R</i>	c.2645G>T	p.R882I	NM_000875.3	Missense	snv	EX13	1.60
P13	B1	<i>LATS1</i>	c.2594- 1_2594delGGinsAT	.	NM_004690.3	span	delins	IVS5-EX6	1.76
P13	B1	<i>NOTCH3</i>	c.4736+1G>C	.	NM_000435.2	splice-5	snv	IVS25	1.94
P13	B1	<i>PTPRD</i>	c.1036G>T	p.G346W	NM_002839.3	Missense	snv	EX21	2.16
P13	B1	<i>PTPRD</i>	c.4351G>A	p.V1451I	NM_002839.3	Missense	snv	EX37	0.47
P13	B1	<i>RAD52</i>	c.878C>A	p.A293D	NM_134424.2	Missense	snv	EX10	2.64
P13	B1	<i>ROCK1</i>	c.1115A>G	p.E372G	NM_005406.2	Missense	snv	EX10	0.85
P13	B1	<i>TNFAIP3</i>	c.190_219delATCC ACAAAGCCCTC ATCGACAGAAA CATC	p.I64_I73del	NM_006290.3	cds-del	del	EX2	0.51
P13	B1	<i>TP53</i>	c.405C>G	p.C135W	NM_000546.5	Missense	snv	EX5	1.92
P13	B2	<i>ERBB4</i>	c.2966G>A	p.G989D	NM_005235.2	Missense	snv	EX25	1.19
P13	B2	<i>FAT2</i>	c.10808C>T	p.T3603M	NM_001447.2	Missense	snv	EX18	0.93

P13	B2	<i>PTPRD</i>	c.4351G>A	p.V1451I	NM_002839.3	Missense	snv	EX37	0.63
P13	B2	<i>KDM5C</i>	c.3826G>A	p.E1276K	NM_004187.3	Missense	snv	EX23	0.50
P13	B3	<i>FAT2</i>	c.10808C>T	p.T3603M	NM_001447.2	Missense	snv	EX18	0.86
P13	B3	<i>PTPRD</i>	c.4351G>A	p.V1451I	NM_002839.3	Missense	snv	EX37	0.32
P13	T1	<i>RB1</i>	c.1496_1498+1delG CAG	.	NM_000321.2	span	del	EX16- IVS16	36.46
P13	T1	<i>HDAC4</i>	c.1610A>G	p.D537G	NM_006037.3	Missense	snv	EX13	48.41
P13	T1	<i>FAM123B</i>	c.2012C>G	p.S671*	NM_152424.3	Nonsense	snv	EX2E	43.82
P13	T1	<i>IGF1R</i>	c.2645G>T	p.R882I	NM_000875.3	Missense	snv	EX13	39.13
P13	T1	<i>NOTCH3</i>	c.4736+1G>C	.	NM_000435.2	splice-5	snv	IVS25	33.26
P13	T1	<i>LATS1</i>	c.2594- 1_2594delGGinsAT	.	NM_004690.3	span	delins	IVS5-EX6	32.64
P13	T1	<i>RAD52</i>	c.878C>A	p.A293D	NM_134424.2	Missense	snv	EX10	31.61
P13	T1	<i>TMEM132D</i>	c.591G>C	p.E197D	NM_133448.2	Missense	snv	EX2	25.58
P13	T1	<i>CBR3</i>	c.749C[4>3]	p.P251Lfs*44	NM_001236.3	Frameshift	del	EX3E	22.74
P13	T1	<i>PTPRD</i>	c.1036G>T	p.G346W	NM_002839.3	Missense	snv	EX21	22.74
P13	T1	<i>FAT1</i>	c.3563C>T	p.S1188L	NM_005245.3	Missense	snv	EX3	17.05
P13	T1	<i>TP73</i>	c.434C>G	p.S145C	NM_005427.3	Missense	snv	EX5	14.56
P13	T1	<i>NTRK3</i>	c.1561C>T	p.H521Y	NM_001012338.2	Missense	snv	EX14	4.17
P13	T1	<i>RAD54L</i>	c.724G>T	p.A242S	NM_001142548.1	Missense	snv	EX8	3.99
P13	T1	<i>MST1R</i>	c.2515_2516delGCi nsTT	p.A839L	NM_002447.2	Missense	delins	EX10	3.77
P13	T1	<i>RICTOR</i>	c.770A>C	p.Y257S	NM_152756.3	Missense	snv	EX9	3.17
P13	T1	<i>MLL3</i>	c.1184_1184+1insA	p.Q396Tfs*6	NM_170606.2	Frameshift	ins	IVS8-EX8	3.12
P13	T1	<i>TP53</i>	c.405C>G	p.C135W	NM_000546.5	Missense	snv	EX5	43.00
P14	B1	<i>RB1</i>	c.1499-2A>G	.	NM_000321.2	splice-3	snv	IVS16	45.65
P14	B1	<i>TP73</i>	c.706G>T	p.V236F	NM_005427.3	Missense	snv	EX6	27.72
P14	B1	<i>RPS6KB2</i>	c.979T>C	p.F327L	NM_003952.2	Missense	snv	EX12	0.61
P14	B1	<i>TP53</i>	c.623A>T	p.D208V	NM_000546.5	Missense	snv	EX6	47.16
P14	B2	<i>RB1</i>	c.1499-2A>G	.	NM_000321.2	splice-3	snv	IVS16	1.78
P14	B2	<i>TP73</i>	c.706G>T	p.V236F	NM_005427.3	Missense	snv	EX6	1.10
P14	B2	<i>TP53</i>	c.623A>T	p.D208V	NM_000546.5	Missense	snv	EX6	1.77
P14	B3	<i>RB1</i>	c.1499-2A>G	.	NM_000321.2	splice-3	snv	IVS16	1.58
P14	B3	<i>TP73</i>	c.706G>T	p.V236F	NM_005427.3	Missense	snv	EX6	1.86
P14	B3	<i>TP53</i>	c.623A>T	p.D208V	NM_000546.5	Missense	snv	EX6	2.08
P14	B4	<i>RB1</i>	c.1499-2A>G	.	NM_000321.2	splice-3	snv	IVS16	35.45
P14	B4	<i>TP73</i>	c.706G>T	p.V236F	NM_005427.3	Missense	snv	EX6	24.81
P14	B4	<i>LRP1B</i>	c.2735G>A	p.G912E	NM_018557.2	Missense	snv	EX17	3.50
P14	B4	<i>MDC1</i>	c.4795T>G	p.C1599G	NM_014641.2	Missense	snv	EX10	1.79
P14	B4	<i>VHL</i>	c.304C>A	p.P102T	NM_000551.3	Missense	snv	EX1	1.60
P14	B4	<i>TOP2A</i>	c.725G>T	p.R242I	NM_001067.3	Missense	snv	EX7	1.47
P14	B4	<i>H3F3C</i>	c.312G>C	p.L104F	NM_001013699.2	Missense	snv	EX1E	1.35
P14	B4	<i>ESR1</i>	c.805C>G	p.R269G	NM_001122740.1	Missense	snv	EX5	1.08

P14	B4	<i>FGF3</i>	c.199A>T	p.S67C	NM_005247.2	Missense	snv	EX1	1.01
P14	B4	<i>SF1</i>	c.535G>A	p.G179R	NM_004630.3	Missense	snv	EX6	0.78
P14	B4	<i>HSP90AA1</i>	c.1863G>T	p.K621N	NM_001017963.2	Missense	snv	EX10	0.71
P14	B4	<i>TP53</i>	c.623A>T	p.D208V	NM_000546.5	Missense	snv	EX6	35.71
P15	B1	<i>RB1</i>	c.127_133delCCTC TCG	p.P43Sfs*20	NM_000321.2	Frameshift	del	EX1	18.54
P15	B1	<i>CREBBP</i>	c.629A>G	p.N210S	NM_004380.2	Missense	snv	EX2	8.16
P15	B1	<i>CREBBP</i>	c.136C>T	p.P46S	NM_004380.2	Missense	snv	EX2	0.48
P15	B1	<i>EP300</i>	c.4617+1G>A	.	NM_001429.3	splice-5	snv	IVS28	17.01
P15	B1	<i>FGF19</i>	c.583G>A	p.D195N	NM_005117.2	Missense	snv	EX3E	6.75
P15	B1	<i>FLT1</i>	c.3733G>A	p.D1245N	NM_002019.4	Missense	snv	EX29	0.66
P15	B1	<i>FOXP1</i>	c.1507C>T	p.R503*	NM_001244814.1	Nonsense	snv	EX13	0.67
P15	B1	<i>IDH1</i>	c.395G>A	p.R132H	NM_005896.2	Missense	snv	EX4	4.47
P15	B1	<i>MLL2</i>	c.5097C>A	p.F1699L	NM_003482.3	Missense	snv	EX21	8.42
P15	B1	<i>NTRK1</i>	c.959C>G	p.S320C	NM_002529.3	Missense	snv	EX8	8.02
P15	B1	<i>SDHA</i>	c.1551delG	p.K517Nfs*30	NM_004168.2	Frameshift	del	EX11	25.37
P15	B1	<i>TMEM132D</i>	c.709_710delGGins TT	p.G237L	NM_133448.2	Missense	delins	EX2	7.42
P15	B1	<i>TSHR</i>	c.1679T>A	p.I560K	NM_000369.2	Missense	snv	EX10E	7.39
P15	B1	<i>TP53</i>	c.844C>T	p.R282W	NM_000546.5	Missense	snv	EX8	10.19
P15	B2	<i>CREBBP</i>	c.136C>T	p.P46S	NM_004380.2	Missense	snv	EX2	0.85
P15	B2	<i>FLT1</i>	c.3733G>A	p.D1245N	NM_002019.4	Missense	snv	EX29	0.62
P15	B2	<i>PPM1D</i>	c.1219TG[3>2]	p.V408Dfs*25	NM_003620.3	Frameshift	del	EX5	0.61
P15	B2	<i>TNFRSF14</i>	c.184C>T	p.R62C	NM_003820.2	Missense	snv	EX3	0.46
P15	B2	<i>PPM1D</i>	c.1205_1212delAT AGTCAAinsT	p.N402Mfs*5	NM_003620.3	Frameshift	delins	EX5	0.30
P15	B3	<i>PPM1D</i>	c.1219TG[3>2]	p.V408Dfs*25	NM_003620.3	Frameshift	del	EX5	2.12
P15	B3	<i>PPM1D</i>	c.1205_1212delAT AGTCAAinsT	p.N402Mfs*5	NM_003620.3	Frameshift	delins	EX5	1.51
P15	B3	<i>TNFRSF14</i>	c.184C>T	p.R62C	NM_003820.2	Missense	snv	EX3	0.95
P15	B3	<i>CREBBP</i>	c.136C>T	p.P46S	NM_004380.2	Missense	snv	EX2	0.61
P15	B3	<i>FLT1</i>	c.3733G>A	p.D1245N	NM_002019.4	Missense	snv	EX29	0.60
P15	B3	<i>TSHR</i>	c.1235T>A	p.M412K	NM_000369.2	Missense	snv	EX10E	0.54
P15	T1	<i>RB1</i>	c.127_133delCCTC TCG	p.P43Sfs*20	NM_000321.2	Frameshift	del	EX1	49.64
P15	T1	<i>EP300</i>	c.4617+1G>A	.	NM_001429.3	splice-5	snv	IVS28	63.42
P15	T1	<i>SDHA</i>	c.1551delG	p.K517Nfs*30	NM_004168.2	Frameshift	del	EX11	53.80
P15	T1	<i>TSHR</i>	c.1679T>A	p.I560K	NM_000369.2	Missense	snv	EX10E	33.87
P15	T1	<i>MLL2</i>	c.5097C>A	p.F1699L	NM_003482.3	Missense	snv	EX21	32.89
P15	T1	<i>CREBBP</i>	c.629A>G	p.N210S	NM_004380.2	Missense	snv	EX2	32.64
P15	T1	<i>FGF19</i>	c.583G>A	p.D195N	NM_005117.2	Missense	snv	EX3E	29.07
P15	T1	<i>NTRK1</i>	c.959C>G	p.S320C	NM_002529.3	Missense	snv	EX8	26.07
P15	T1	<i>TMEM132D</i>	c.709_710delGGins	p.G237L	NM_133448.2	Missense	delins	EX2	22.37

TT									
P15	T1	<i>TP53</i>	c.844C>T	p.R282W	NM_000546.5	Missense	snv	EX8	57.42
P16	B1	<i>RB1</i>	c.1318G>T	p.E440*	NM_000321.2	Nonsense	snv	EX13	55.27
P16	B1	<i>ATR</i>	c.1345G>T	p.E449*	NM_001184.3	Nonsense	snv	EX5	18.65
P16	B1	<i>CCND1</i>	gain		NM_053056.2		cnv	EX1- EX5E	295.28
P16	B1	<i>DDR2</i>	c.2089G>A	p.G697S	NM_006182.2	Missense	snv	EX16	63.77
P16	B1	<i>FANCL</i>	gain		NM_001114636.1		cnv	EX1- EX14E	341.13
P16	B1	<i>FAT1</i>	c.6626C>T	p.P2209L	NM_005245.3	Missense	snv	EX10	37.89
P16	B1	<i>FAT1</i>	c.10351-2A>G	.	NM_005245.3	splice-3	snv	IVS17	31.91
P16	B1	<i>FGF3</i>	gain		NM_005247.2		cnv	EX1- EX3E	364.09
P16	B1	<i>FGF4</i>	gain		NM_002007.2		cnv	EX1- EX3E	333.42
P16	B1	<i>LRP1B</i>	c.7307G>T	p.G2436V	NM_018557.2	Missense	snv	EX44	32.39
P16	B1	<i>MLL2</i>	c.12462C[5>4]	p.Q4156Nfs*5	NM_003482.3	Frameshift	del	EX39	39.68
P16	B1	<i>MYCL1</i>	gain		NM_001033082.2		cnv	EX1- EX3E	344.05
P16	B1	<i>NFE2L2</i>	gain		NM_006164.4		cnv	EX1- EX5E	309.91
P16	B1	<i>NOTCH2</i>	c.6956delC	p.A2319Gfs*39	NM_024408.3	Frameshift	del	EX34E	46.48
P16	B1	<i>NOTCH3</i>	c.5540C>A	p.A1847D	NM_000435.2	Missense	snv	EX30	68.91
P16	B1	<i>PIK3CA</i>	c.2912G>A	p.C971Y	NM_006218.2	Missense	snv	EX20	13.80
P16	B1	<i>POLD1</i>	c.551G>T	p.G184V	NM_002691.3	Missense	snv	EX5	68.14
P16	B1	<i>TP53</i>	c.404G>T	p.C135F	NM_000546.5	Missense	snv	EX5	18.13
P16	T1	<i>RB1</i>	c.1318G>T	p.E440*	NM_000321.2	Nonsense	snv	EX13	20.05
P16	T1	<i>DDR2</i>	c.2089G>A	p.G697S	NM_006182.2	Missense	snv	EX16	34.72
P16	T1	<i>NOTCH3</i>	c.5540C>A	p.A1847D	NM_000435.2	Missense	snv	EX30	23.81
P16	T1	<i>POLD1</i>	c.551G>T	p.G184V	NM_002691.3	Missense	snv	EX5	21.03
P16	T1	<i>MLL2</i>	c.12462C[5>4]	p.Q4156Nfs*5	NM_003482.3	Frameshift	del	EX39	16.77
P16	T1	<i>NOTCH2</i>	c.6956delC	p.A2319Gfs*39	NM_024408.3	Frameshift	del	EX34E	16.22
P16	T1	<i>LRP1B</i>	c.7307G>T	p.G2436V	NM_018557.2	Missense	snv	EX44	10.84
P16	T1	<i>FAT1</i>	c.6626C>T	p.P2209L	NM_005245.3	Missense	snv	EX10	8.88
P16	T1	<i>FAT1</i>	c.10351-2A>G	.	NM_005245.3	splice-3	snv	IVS17	8.53
P16	T1	<i>PIK3CA</i>	c.2912G>A	p.C971Y	NM_006218.2	Missense	snv	EX20	6.35
P16	T1	<i>ATR</i>	c.1345G>T	p.E449*	NM_001184.3	Nonsense	snv	EX5	6.34
P16	T1	<i>CHEK2</i>	c.746A>G	p.K249R	NM_007194.3	Missense	snv	EX6	1.32
P16	T1	<i>TP53</i>	c.404G>T	p.C135F	NM_000546.5	Missense	snv	EX5	8.06
P17	B1	<i>ARAP3</i>	c.1537G>A	p.D513N	NM_022481.5	Missense	snv	EX10	1.32
P17	B1	<i>CDKN1A</i>	c.379G>A	p.A127T	NM_078467.2	Missense	snv	EX3	17.02
P17	B1	<i>ETV5</i>	c.1516G>A	p.E506K	NM_004454.2	Missense	snv	EX13E	0.67
P17	B1	<i>FLT4</i>	c.3092G>A	p.R1031Q	NM_182925.4	Missense	snv	EX22	0.60

P17	B1	<i>GRB7</i>	c.1133C>T	p.S378F	NM_005310.3	Missense	snv	EX11	0.59
P17	B1	<i>INPP4B</i>	c.2272G>A	p.E758K	NM_001101669.1	Missense	snv	EX22	0.54
P17	B1	<i>LRP1B</i>	c.4163G>A	p.R1388K	NM_018557.2	Missense	snv	EX25	0.51
P17	B1	<i>MLL3</i>	c.7417A>G	p.M2473V	NM_170606.2	Missense	snv	EX37	15.18
P17	B1	<i>MLL3</i>	c.4841C>T	p.S1614F	NM_170606.2	Missense	snv	EX33	0.51
P17	B1	<i>RHOH</i>	c.139A>G	p.M47V	NM_004310.3	Missense	snv	EX3E	14.20
P17	B1	<i>TAL1</i>	c.912C>A	p.Y304*	NM_003189.2	Nonsense	snv	EX4E	17.16
P17	B1	<i>ZNF638</i>	c.1684G>A	p.E562K	NM_001252612.1	Missense	snv	EX5	0.58
P17	B1	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	26.84
P17	B2	<i>CBL</i>	c.2677C>G	p.R893G	NM_005188.3	Missense	snv	EX16E	0.80
P17	B2	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	0.57
P17	B3	<i>MLL3</i>	c.7417A>G	p.M2473V	NM_170606.2	Missense	snv	EX37	10.23
P17	B3	<i>TAL1</i>	c.912C>A	p.Y304*	NM_003189.2	Nonsense	snv	EX4E	8.93
P17	B3	<i>CDKN1A</i>	c.379G>A	p.A127T	NM_078467.2	Missense	snv	EX3	5.70
P17	B3	<i>RHOH</i>	c.139A>G	p.M47V	NM_004310.3	Missense	snv	EX3E	5.37
P17	B3	<i>EPHB1</i>	c.2419G>A	p.V807I	NM_004441.4	Missense	snv	EX13	1.12
P17	B3	<i>PPM1D</i>	c.1528C>T	p.Q510*	NM_003620.3	Nonsense	snv	EX6E	0.8
P17	B3	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	11.08
P17	B4	<i>MLL3</i>	c.7417A>G	p.M2473V	NM_170606.2	Missense	snv	EX37	67.00
P17	B4	<i>TAL1</i>	c.912C>A	p.Y304*	NM_003189.2	Nonsense	snv	EX4E	51.07
P17	B4	<i>RHOH</i>	c.139A>G	p.M47V	NM_004310.3	Missense	snv	EX3E	40.00
P17	B4	<i>CDKN1A</i>	c.379G>A	p.A127T	NM_078467.2	Missense	snv	EX3	27.74
P17	B4	<i>FGF6</i>	c.189G[4>5]	p.L65Afs*80	NM_020996.1	Frameshift	ins	EX1	14.36
P17	B4	<i>PIK3CG</i>	c.580A>T	p.K194*	NM_002649.2	Nonsense	snv	EX2	1.03
P17	B4	<i>AXL</i>	c.1642G>A	p.G548R	NM_021913.3	Missense	snv	EX14	0.73
P17	B4	<i>NKX2-1</i>	c.177G>A	p.M59I	NM_001079668.2	Missense	snv	EX2	0.67
P17	B4	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	80.09
P17	T1	<i>MLL3</i>	c.7417A>G	p.M2473V	NM_170606.2	Missense	snv	EX37	40.56
P17	T1	<i>CDKN1A</i>	c.379G>A	p.A127T	NM_078467.2	Missense	snv	EX3	39.88
P17	T1	<i>RHOH</i>	c.139A>G	p.M47V	NM_004310.3	Missense	snv	EX3E	36.53
P17	T1	<i>TAL1</i>	c.912C>A	p.Y304*	NM_003189.2	Nonsense	snv	EX4E	32.91
P17	T1	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	70.76
P17	T1	<i>TP53</i>	c.499C>T	p.Q167*	NM_000546.5	Nonsense	snv	EX5	2.78
P18	B1	<i>DMD</i>	c.5146G>A	p.V1716M	NM_004006.2	Missense	snv	EX36	0.56
P18	B1	<i>FGFR3</i>	c.1181C>T	p.T394M	NM_000142.4	Missense	snv	EX9	0.67
P18	B1	<i>LRP1B</i>	c.1370G[4>3]	p.G458Efs*83	NM_018557.2	Frameshift	del	EX9	0.70
P18	B1	<i>PIK3C2B</i>	c.4046G[2>1]	p.L1350*fs*1	NM_002646.3	Frameshift	del	EX28	1.52
P18	B1	<i>TMPRSS2</i>	c.1385T>C	p.I462T	NM_001135099.1	Missense	snv	EX12	0.55
P18	B1	<i>TP53</i>	c.499C>T	p.Q167*	NM_000546.5	Nonsense	snv	EX5	1.19
P18	B2	<i>GAB2</i>	c.422C>A	p.S141Y	NM_080491.2	Missense	snv	EX3	0.66
P18	B2	<i>FGFR3</i>	c.334C>T	p.R112W	NM_000142.4	Missense	snv	EX3	0.49
P18	B2	<i>TMPRSS2</i>	c.1385T>C	p.I462T	NM_001135099.1	Missense	snv	EX12	0.17
P18	B4	<i>TMPRSS2</i>	c.1385T>C	p.I462T	NM_001135099.1	Missense	snv	EX12	0.85

P18	B4	<i>DMD</i>	c.5146G>A	p.V1716M	NM_004006.2	Missense	snv	EX36	0.74
P18	B4	<i>FGFR3</i>	c.1181C>T	p.T394M	NM_000142.4	Missense	snv	EX9	0.70
P18	B4	<i>TP53</i>	c.499C>T	p.Q167*	NM_000546.5	Nonsense	snv	EX5	0.27
P18	T1	<i>ARID1B</i>	c.743C>G	p.A248G	NM_020732.3	Missense	snv	EX1	40.74
P18	T1	<i>PIK3C2B</i>	c.4046G[2>1]	p.L1350*fs*1	NM_002646.3	Frameshift	del	EX28	28.81
P18	T1	<i>LRP1B</i>	c.1370G[4>3]	p.G458Efs*83	NM_018557.2	Frameshift	del	EX9	19.15
P18	T1	<i>TP53</i>	c.499C>T	p.Q167*	NM_000546.5	Nonsense	snv	EX5	56.51
P19	B1	<i>APC</i>	c.2725A>T	p.T909S	NM_000038.5	Missense	snv	EX16E	35.01
P19	B1	<i>ASH1L</i>	c.262A>G	p.K88E	NM_018489.2	Missense	snv	EX2	1.39
P19	B1	<i>BRIP1</i>	c.2410C>T	p.H804Y	NM_032043.2	Missense	snv	EX17	7.39
P19	B1	<i>DDR2</i>	c.920G>T	p.R307L	NM_006182.2	Missense	snv	EX9	39.54
P19	B1	<i>DICER1</i>	c.5463G>T	p.M1821I	NM_030621.3	Missense	snv	EX26	12.45
P19	B1	<i>FANCL</i>	c.902C>A	p.A301D	NM_001114636.1	Missense	snv	EX11	16.39
P19	B1	<i>LRP1B</i>	c.12643G>T	p.D4215Y	NM_018557.2	Missense	snv	EX83	48.85
P19	B1	<i>LRP1B</i>	c.5134_5135delGGi nsAT	p.G1712I	NM_018557.2	Missense	delins	EX31	41.65
P19	B1	<i>MLL2</i>	c.14023G>C	p.D4675H	NM_003482.3	Missense	snv	EX43	20.20
P19	B1	<i>MLL3</i>	c.2425G[2>1]	p.G809Efs*45	NM_170606.2	Frameshift	del	EX14	3.36
P19	B1	<i>NF1</i>	c.2764G>A	p.G922S	NM_000267.3	Missense	snv	EX21	26.92
P19	B1	<i>NKX2-1</i>	c.941G>C	p.G314A	NM_001079668.2	Missense	snv	EX3E	0.50
P19	B1	<i>NOTCH2</i>	c.1265- 1_1271delGCCAA TAG	.	NM_024408.3	span	del	IVS7-EX8	6.99
P19	B1	<i>PIK3CB</i>	c.3182C[3>2]	p.H1062Tfs*33	NM_006219.2	Frameshift	del	EX22E	0.60
P19	B1	<i>RAB35</i>	c.282G>C	p.E94D	NM_006861.6	Missense	snv	EX4	7.38
P19	B1	<i>RAD51</i>	c.881A>G	p.H294R	NM_002875.4	Missense	snv	EX9	50.34
P19	B1	<i>RNF43</i>	c.822C>G	p.I274M	NM_017763.4	Missense	snv	EX7	15.39
P19	B1	<i>ROBO3</i>	c.1951+2T>C	.	NM_022370.3	splice-5	snv	IVS12	4.83
P19	B1	<i>TBX3</i>	c.1370_1371delCGi nsAT	p.P457H	NM_016569.3	Missense	delins	EX7	0.64
P19	B1	<i>TP53</i>	c.796G>T	p.G266*	NM_000546.5	Nonsense	snv	EX8	43.88
P19	B2	<i>LRP1B</i>	c.12643G>T	p.D4215Y	NM_018557.2	Missense	snv	EX83	0.97
P19	B2	<i>DDR2</i>	c.920G>T	p.R307L	NM_006182.2	Missense	snv	EX9	0.81
P19	B2	<i>RAD51</i>	c.881A>G	p.H294R	NM_002875.4	Missense	snv	EX9	0.69
P19	B2	<i>TP53</i>	c.796G>T	p.G266*	NM_000546.5	Nonsense	snv	EX8	0.29
P19	B3	<i>MDC1</i>	c.4795T>G	p.C1599G	NM_014641.2	Missense	snv	EX10	1.37
P19	B3	<i>DNMT3A</i>	c.886G>T	p.V296L	NM_022552.4	Missense	snv	EX8	1
P19	T1	<i>RAD51</i>	c.881A>G	p.H294R	NM_002875.4	Missense	snv	EX9	42.92
P19	T1	<i>DDR2</i>	c.920G>T	p.R307L	NM_006182.2	Missense	snv	EX9	36.64
P19	T1	<i>LRP1B</i>	c.12643G>T	p.D4215Y	NM_018557.2	Missense	snv	EX83	35.42
P19	T1	<i>APC</i>	c.2725A>T	p.T909S	NM_000038.5	Missense	snv	EX16E	33.83
P19	T1	<i>LRP1B</i>	c.5134_5135delGGi nsAT	p.G1712I	NM_018557.2	Missense	delins	EX31	31.19

P19	T1	<i>NF1</i>	c.2764G>A	p.G922S	NM_000267.3	Missense	snv	EX21	25.69
P19	T1	<i>MLL2</i>	c.14023G>C	p.D4675H	NM_003482.3	Missense	snv	EX43	18.55
P19	T1	<i>FANCL</i>	c.902C>A	p.A301D	NM_001114636.1	Missense	snv	EX11	17.69
P19	T1	<i>RNF43</i>	c.822C>G	p.I274M	NM_017763.4	Missense	snv	EX7	15.43
P19	T1	<i>DICER1</i>	c.5463G>T	p.M1821I	NM_030621.3	Missense	snv	EX26	9.23
P19	T1	<i>NOTCH2</i>	c.1265- 1_1271delGCCAA TAG	.	NM_024408.3	span	del	IVS7-EX8	8.63
P19	T1	<i>RAB35</i>	c.282G>C	p.E94D	NM_006861.6	Missense	snv	EX4	8.47
P19	T1	<i>BRIP1</i>	c.2410C>T	p.H804Y	NM_032043.2	Missense	snv	EX17	6.88
P19	T1	<i>ROBO3</i>	c.1951+2T>C	.	NM_022370.3	splice-5	snv	IVS12	5.35
P19	T1	<i>MLL3</i>	c.2425G[2>1]	p.G809Efs*45	NM_170606.2	Frameshift	del	EX14	4.47
P19	T1	<i>ARID2</i>	c.3509A>G	p.N1170S	NM_152641.2	Missense	snv	EX15	3.18
P19	T1	<i>AXIN2</i>	c.2024G>A	p.R675H	NM_004655.3	Missense	snv	EX8	1.97
P19	T1	<i>TP53</i>	c.796G>T	p.G266*	NM_000546.5	Nonsense	snv	EX8	38.81
P20	B1	<i>RB1</i>	c.1362C>A	p.Y454*	NM_000321.2	Nonsense	snv	EX14	19.07
P20	B1	<i>BCOR</i>	c.2548C>T	p.R850C	NM_001123385.1	Missense	snv	EX4	25.89
P20	B1	<i>CDC73</i>	c.679AG[5>6]	p.V230Efs*28	NM_024529.4	Frameshift	ins	EX7	6.72
P20	B1	<i>CHEK2</i>	c.1420C>T	p.R474C	NM_007194.3	Missense	snv	EX13	0.48
P20	B1	<i>CUX1</i>	c.2615G>T	p.G872V	NM_181552.3	Missense	snv	EX18	7.40
P20	B1	<i>LRP1B</i>	c.7158A>T	p.K2386N	NM_018557.2	Missense	snv	EX43	0.53
P20	B1	<i>NF2</i>	c.1175AGG[3>2]	p.E392[3>2]	NM_000268.3	cds-del	del	EX12	14.61
P20	B1	<i>NOTCH3</i>	c.2023G>T	p.G675W	NM_000435.2	Missense	snv	EX13	30.83
P20	B1	<i>TP53</i>	c.331C>G	p.L111V	NM_000546.5	Missense	snv	EX4	8.11
P20	B1	<i>TP53</i>	c.298_328delCAG AAAACCTACCA GGGCAGCTACG GTTTCC	p.Q100Vfs*13	NM_000546.5	Frameshift	del	EX4	2.66
P20	B2	<i>GAB2</i>	c.205_219delGTAG ATGCAGGCCTG	p.V69_L73del	NM_080491.2	cds-del	del	EX2	1.58
P20	B2	<i>ACIN1</i>	c.1920G>T	p.R640S	NM_014977.3	Missense	snv	EX6	1.37
P20	B3	<i>PPM1D</i>	c.1423delG	p.E475Kfs*8	NM_003620.3	Frameshift	del	EX6E	13.55
P20	B3	<i>GAB2</i>	c.205_219delGTAG ATGCAGGCCTG	p.V69_L73del	NM_080491.2	cds-del	del	EX2	7.99
P20	B3	<i>CHEK2</i>	c.1420C>T	p.R474C	NM_007194.3	Missense	snv	EX13	0.84
P20	B3	<i>NOTCH3</i>	c.2023G>T	p.G675W	NM_000435.2	Missense	snv	EX13	0.37
P20	B4	<i>RB1</i>	c.1362C>A	p.Y454*	NM_000321.2	Nonsense	snv	EX14	5.31
P20	B4	<i>NAP1L1</i>	c.472dupG	p.D158Gfs*2	NM_004537.4	Frameshift	ins	EX7	10.18
P20	B4	<i>NOTCH3</i>	c.2023G>T	p.G675W	NM_000435.2	Missense	snv	EX13	9.37
P20	B4	<i>BCOR</i>	c.2548C>T	p.R850C	NM_001123385.1	Missense	snv	EX4	8.53
P20	B4	<i>NF2</i>	c.1175AGG[3>2]	p.E392[3>2]	NM_000268.3	cds-del	del	EX12	3.59
P20	B4	<i>NFE2L2</i>	c.1147_1151delAG TGCinsG	p.S383Afs*49	NM_006164.4	Frameshift	delins	EX5E	2.35

P20	B4	<i>GAB2</i>	c.205_219delGTAG ATGCAGGCCTG	p.V69_L73del	NM_080491.2	cds-del	del	EX2	1.91
P20	B4	<i>CUX1</i>	c.2615G>T	p.G872V	NM_181552.3	Missense	snv	EX18	1.66
P20	B4	<i>CHEK2</i>	c.1420C>T	p.R474C	NM_007194.3	Missense	snv	EX13	1.48
P20	B4	<i>CDC73</i>	c.679AG[5>6]	p.V230Efs*28	NM_024529.4	Frameshift	ins	EX7	1.01
P20	B4	<i>FGFR3</i>	c.1948A>G	p.K650E	NM_000142.4	Missense	snv	EX14	0.50
P20	B4	<i>TP53</i>	c.331C>G	p.L111V	NM_000546.5	Missense	snv	EX4	2.48
P20	B4	<i>TP53</i>	c.298_328delCAG AAAACCTACCA GGGCAGCTACG GTTTCC	p.Q100Vfs*13	NM_000546.5	Frameshift	del	EX4	0.73
P20	T1	<i>RB1</i>	c.1362C>A	p.Y454*	NM_000321.2	Nonsense	snv	EX14	86.29
P20	T1	<i>BCOR</i>	c.2548C>T	p.R850C	NM_001123385.1	Missense	snv	EX4	89.54
P20	T1	<i>NOTCH3</i>	c.2023G>T	p.G675W	NM_000435.2	Missense	snv	EX13	71.87
P20	T1	<i>NF2</i>	c.1175AGG[3>2]	p.E392[3>2]	NM_000268.3	cds-del	del	EX12	56.30
P20	T1	<i>CUX1</i>	c.2615G>T	p.G872V	NM_181552.3	Missense	snv	EX18	28.62
P20	T1	<i>CDC73</i>	c.679AG[5>6]	p.V230Efs*28	NM_024529.4	Frameshift	ins	EX7	15.79
P20	T1	<i>IMPG1</i>	c.145G>C	p.E49Q	NM_001563.2	Missense	snv	EX2	4.68
P20	T1	<i>MEF2B</i>	gain		NM_001145785.1		cnv	EX2- EX9E	362.46
P20	T1	<i>PIK3R2</i>	gain		NM_005027.2		cnv	EX2- EX16E	374.60
P20	T1	<i>SRC</i>	gain		NM_198291.1		cnv	EX4- EX14E	301.63
P20	T1	<i>TP53</i>	c.331C>G	p.L111V	NM_000546.5	Missense	snv	EX4	77.80
P20	T1	<i>TP53</i>	c.298_328delCAG AAAACCTACCA GGGCAGCTACG GTTTCC	p.Q100Vfs*13	NM_000546.5	Frameshift	del	EX4	24.24
P21	B1	<i>RB1</i>	c.2339C>G	p.S780*	NM_000321.2	Nonsense	snv	EX23	38.41
P21	B1	<i>AR</i>	c.830C>A	p.P277H	NM_000044.3	Missense	snv	EX1	30.57
P21	B1	<i>AXIN2</i>	c.1702G>T	p.E568*	NM_004655.3	Nonsense	snv	EX6	26.27
P21	B1	<i>BRCA1</i>	c.3535A>T	p.K1179*	NM_007294.3	Nonsense	snv	EX10	27.67
P21	B1	<i>CDH23</i>	c.6763G>C	p.E2255Q	NM_022124.5	Missense	snv	EX49	32.25
P21	B1	<i>CUL3</i>	c.2307A>T	p.*769Yfs*?	NM_003590.4	stop-loss	snv	EX16E	20.99
P21	B1	<i>FAM5C</i>	c.1303T>A	p.C435S	NM_199051.1	Missense	snv	EX8E	28.39
P21	B1	<i>FASLG</i>	c.344G>T	p.R115L	NM_000639.1	Missense	snv	EX1	23.69
P21	B1	<i>FGF3</i>	c.637C>A	p.Q213K	NM_005247.2	Missense	snv	EX3E	0.34
P21	B1	<i>POLD1</i>	c.2093A>G	p.N698S	NM_002691.3	Missense	snv	EX17	33.19
P21	B1	<i>ROS1</i>	c.5278A>T	p.K1760*	NM_002944.2	Nonsense	snv	EX32	19.51
P21	B1	<i>TBX3</i>	c.887A>G	p.N296S	NM_016569.3	Missense	snv	EX5	27.30
P21	B1	<i>TMPRSS2</i>	c.1393G>A	p.G465S	NM_001135099.1	Missense	snv	EX12	27.79
P21	B1	<i>XRCC3</i>	c.858A>G	p.I286M	NM_001100119.1	Missense	snv	EX10E	23.95

P21	B1	<i>TP53</i>	c.246G[2>1]	p.A83Rfs*40	NM_000546.5	Frameshift	del	EX4	49.77
P21	B2	-	-	-	-	-	-	-	-
P21	B3	-	-	-	-	-	-	-	-
P21	T1	<i>RB1</i>	c.2339C>G	p.S780*	NM_000321.2	Nonsense	snv	EX23	92.59
P21	T1	<i>FASLG</i>	c.344G>T	p.R115L	NM_000639.1	Missense	snv	EX1	52.45
P21	T1	<i>CDH23</i>	c.6763G>C	p.E2255Q	NM_022124.5	Missense	snv	EX49	52.43
P21	T1	<i>FAM5C</i>	c.1303T>A	p.C435S	NM_199051.1	Missense	snv	EX8E	47.87
P21	T1	<i>ROS1</i>	c.5278A>T	p.K1760*	NM_002944.2	Nonsense	snv	EX32	46.46
P21	T1	<i>POLD1</i>	c.2093A>G	p.N698S	NM_002691.3	Missense	snv	EX17	46.44
P21	T1	<i>TMPRSS2</i>	c.1393G>A	p.G465S	NM_001135099.1	Missense	snv	EX12	46.35
P21	T1	<i>AR</i>	c.830C>A	p.P277H	NM_000044.3	Missense	snv	EX1	45.16
P21	T1	<i>TBX3</i>	c.887A>G	p.N296S	NM_016569.3	Missense	snv	EX5	45.13
P21	T1	<i>BRCA1</i>	c.3535A>T	p.K1179*	NM_007294.3	Nonsense	snv	EX10	37.61
P21	T1	<i>AXIN2</i>	c.1702G>T	p.E568*	NM_004655.3	Nonsense	snv	EX6	36.99
P21	T1	<i>CUL3</i>	c.2307A>T	p.*769Yfs*?	NM_003590.4	stop-loss	snv	EX16E	32.05
P21	T1	<i>XRCC3</i>	c.858A>G	p.I286M	NM_001100119.1	Missense	snv	EX10E	31.45
P21	T1	<i>MAP2K4</i>	c.860G>T	p.R287L	NM_003010.2	Missense	snv	EX8	16.34
P21	T1	<i>FGF3</i>	c.637C>A	p.Q213K	NM_005247.2	Missense	snv	EX3E	14.79
P21	T1	<i>TP53</i>	c.246G[2>1]	p.A83Rfs*40	NM_000546.5	Frameshift	del	EX4	89.96
P22	B1	<i>MAF</i>	c.544C>T	p.H182Y	NM_001031804.2	Missense	snv	EX1E	0.66
P22	B2	-	-	-	-	-	-	-	-
P22	B3	-	-	-	-	-	-	-	-
P22	T1	<i>RB1</i>	c.1350_1351insGG CTTGTGGAGTT	p.R451Gfs*11	NM_000321.2	Frameshift	ins	EX14	77.62
P22	T1	<i>TBX22</i>	c.-2- 7_13delCCTCCAG GGATGGCTCTGA GCT	.	NM_001109878.1	span	del	IVS1-EX2	63.97
P22	T1	<i>OR4C6</i>	c.144C>G	p.I48M	NM_001004704.1	Missense	snv	EX1E	43.77
P22	T1	<i>OR5L2</i>	c.175delG	p.V59Cfs*11	NM_001004739.1	Frameshift	del	EX1E	41.15
P22	T1	<i>NFE2L2</i>	c.1126T>A	p.S376T	NM_006164.4	Missense	snv	EX5E	35.45
P22	T1	<i>NQO1</i>	c.656C>A	p.T219K	NM_000903.2	Missense	snv	EX6E	34.71
P22	T1	<i>FLG</i>	c.8594C>A	p.A2865D	NM_002016.1	Missense	snv	EX3E	25.87
P22	T1	<i>TP53</i>	c.613T>A	p.Y205N	NM_000546.5	Missense	snv	EX6	87.68
P25	B1	<i>RB1</i>	c.1897_1916delAC CTCAGCCTTCCA GACCCA	p.T633Efs*13	NM_000321.2	Frameshift	del	EX19	38.78
P25	B1	<i>ACIN1</i>	c.1920G>T	p.R640S	NM_014977.3	Missense	snv	EX6	2.53
P25	B1	<i>ARID1B</i>	c.4623G>C	p.Q1541H	NM_020732.3	Missense	snv	EX18	29.45
P25	B1	<i>DNMT3A</i>	c.990G>A	p.W330*	NM_022552.4	Nonsense	snv	EX8	34
P25	B1	<i>PTEN</i>	c.739T[2>3]	p.L247Ffs*6	NM_000314.4	Frameshift	ins	EX7	57.95
P25	B1	<i>SPTA1</i>	c.2732C>A	p.A911E	NM_003126.2	Missense	snv	EX19	37.91
P25	B1	<i>TET2</i>	c.34A>T	p.N12Y	NM_001127208.2	Missense	snv	EX3	13.36

P25	B1	<i>TP73</i>	c.547A>T	p.K183*	NM_005427.3	Nonsense	snv	EX5	1.83
P25	B1	<i>ZFH3</i>	c.2359A>T	p.S787C	NM_006885.3	Missense	snv	EX2	33.43
P25	B1	<i>TP53</i>	c.994-1G>C	.	NM_000546.5	splice-3	snv	IVS9	68.10
P25	B2	<i>RB1</i>	c.1897_1916delAC CTCAGCCTTCCA GACCCA	p.T633Efs*13	NM_000321.2	Frameshift	del	EX19	15.36
P25	B2	<i>ARID1B</i>	c.4623G>C	p.Q1541H	NM_020732.3	Missense	snv	EX18	17.54
P25	B2	<i>ZFH3</i>	c.2359A>T	p.S787C	NM_006885.3	Missense	snv	EX2	17.24
P25	B2	<i>PTEN</i>	c.739T[2>3]	p.L247Ffs*6	NM_000314.4	Frameshift	ins	EX7	16.69
P25	B2	<i>DNMT3A</i>	c.990G>A	p.W330*	NM_022552.4	Nonsense	snv	EX8	17
P25	B2	<i>SPTA1</i>	c.2732C>A	p.A911E	NM_003126.2	Missense	snv	EX19	16.48
P25	B2	<i>TET2</i>	c.34A>T	p.N12Y	NM_001127208.2	Missense	snv	EX3	16.38
P25	B2	<i>PIK3R2</i>	c.1681A>G	p.N561D	NM_005027.2	Missense	snv	EX13	4.67
P25	B2	<i>LRP1B</i>	c.938A>G	p.N313S	NM_018557.2	Missense	snv	EX7	1.36
P25	B2	<i>SOX9</i>	c.119G>T	p.G40V	NM_000346.3	Missense	snv	EX1	0.85
P25	B2	<i>EPAS1</i>	c.878A>C	p.H293P	NM_001430.4	Missense	snv	EX7	0.70
P25	B2	<i>NCOR1</i>	c.2085T>G	p.D695E	NM_006311.3	Missense	snv	EX19	0.51
P25	B2	<i>TP53</i>	c.994-1G>C	.	NM_000546.5	splice-3	snv	IVS9	23.49
P25	T1	<i>RB1</i>	c.1897_1916delAC CTCAGCCTTCCA GACCCA	p.T633Efs*13	NM_000321.2	Frameshift	del	EX19	53.21
P25	T1	<i>PTEN</i>	c.739T[2>3]	p.L247Ffs*6	NM_000314.4	Frameshift	ins	EX7	81.66
P25	T1	<i>ARID1B</i>	c.4623G>C	p.Q1541H	NM_020732.3	Missense	snv	EX18	48.04
P25	T1	<i>ZFH3</i>	c.2359A>T	p.S787C	NM_006885.3	Missense	snv	EX2	46.29
P25	T1	<i>TET2</i>	c.34A>T	p.N12Y	NM_001127208.2	Missense	snv	EX3	46.00
P25	T1	<i>SPTA1</i>	c.2732C>A	p.A911E	NM_003126.2	Missense	snv	EX19	45.76
P25	T1	<i>DNMT3A</i>	c.990G>A	p.W330*	NM_022552.4	Nonsense	snv	EX8	45
P25	T1	<i>TP53</i>	c.994-1G>C	.	NM_000546.5	splice-3	snv	IVS9	86.08
P26	B1	<i>RB1</i>	c.607+2T>G	.	NM_000321.2	splice-5	snv	IVS6	1.24
P26	B1	<i>BCOR</i>	c.2020C>T	p.H674Y	NM_001123385.1	Missense	snv	EX4	1.24
P26	B1	<i>CDH23</i>	c.5020A>G	p.I1674V	NM_022124.5	Missense	snv	EX39	2.14
P26	B1	<i>CXCR4</i>	c.935C>T	p.S312F	NM_003467.2	Missense	snv	EX2E	2.75
P26	B1	<i>HDAC4</i>	c.1666G>T	p.V556L	NM_006037.3	Missense	snv	EX13	1.88
P26	B1	<i>ID3</i>	c.143A>G	p.Y48C	NM_002167.4	Missense	snv	EX1	1.01
P26	B1	<i>PTCH1</i>	c.3149C>A	p.P1050H	NM_000264.3	Missense	snv	EX18	2.27
P26	B1	<i>RICTOR</i>	c.3056C>G	p.P1019R	NM_152756.3	Missense	snv	EX30	2.16
P26	B1	<i>TP53</i>	c.466_477delCGCG TCCGCGCC	p.R156_A159del	NM_000546.5	cds-del	del	EX5	1.70
P26	B2	-	-	-	-	-	-	-	-
P26	B3	<i>DNMT3A</i>	c.2311C>T	p.R771*	NM_022552.4	Nonsense	snv	EX19	1
P26	B3	<i>TP53</i>	c.659A>G	p.Y220C	NM_000546.5	Missense	snv	EX6	0.58
P26	B4	<i>H3F3C</i>	c.312G>C	p.L104F	NM_001013699.2	Missense	snv	EX1E	1.87
P26	B4	<i>DNMT3A</i>	c.2311C>T	p.R771*	NM_022552.4	Nonsense	snv	EX19	1

P26	T1	<i>RB1</i>	c.607+2T>G	.	NM_000321.2	splice-5	snv	IVS6	89.50
P26	T1	<i>HDAC4</i>	c.1666G>T	p.V556L	NM_006037.3	Missense	snv	EX13	48.64
P26	T1	<i>PTCH1</i>	c.3149C>A	p.P1050H	NM_000264.3	Missense	snv	EX18	47.46
P26	T1	<i>CDH23</i>	c.5020A>G	p.I1674V	NM_022124.5	Missense	snv	EX39	46.31
P26	T1	<i>RICTOR</i>	c.3056C>G	p.P1019R	NM_152756.3	Missense	snv	EX30	45.78
P26	T1	<i>CXCR4</i>	c.935C>T	p.S312F	NM_003467.2	Missense	snv	EX2E	45.69
P26	T1	<i>ID3</i>	c.143A>G	p.Y48C	NM_002167.4	Missense	snv	EX1	43.78
P26	T1	<i>MTOR</i>	c.2995A>G	p.N999D	NM_004958.3	Missense	snv	EX19	42.02
P26	T1	<i>BCOR</i>	c.2020C>T	p.H674Y	NM_001123385.1	Missense	snv	EX4	41.04
P26	T1	<i>TP53</i>	c.466_477delCGCG TCCGCGCC	p.R156_A159del	NM_000546.5	cds-del	del	EX5	71.19
P27	B1	<i>RB1</i>	c.2106+1G>A	.	NM_000321.2	splice-5	snv	IVS20	69.74
P27	B1	<i>FANCA</i>	c.2882A>G	p.E961G	NM_000135.2	Missense	snv	EX30	36.98
P27	B1	<i>FAT1</i>	c.8194A>T	p.T2732S	NM_005245.3	Missense	snv	EX10	52.04
P27	B1	<i>FAT2</i>	c.613G>T	p.V205L	NM_001447.2	Missense	snv	EX1	32.15
P27	B1	<i>HSP90AA1</i>	c.694A>G	p.I232V	NM_001017963.2	Missense	snv	EX4	24.89
P27	B1	<i>KRAS</i>	gain		NM_033360.2		cnv	EX2- EX6E	331.76
P27	B1	<i>LRP1B</i>	c.12805+1G>T	.	NM_018557.2	splice-5	snv	IVS83	48.11
P27	B1	<i>PMS1</i>	c.12G>T	p.L4F	NM_000534.4	Missense	snv	EX2	26.45
P27	B1	<i>RECQL</i>	c.439C>G	p.Q147E	NM_002907.3	Missense	snv	EX5	5.23
P27	B1	<i>RECQL</i>	gain		NM_002907.3		cnv	EX2- EX15E	311.84
P27	B1	<i>ROS1</i>	c.4424T>A	p.L1475H	NM_002944.2	Missense	snv	EX27	63.18
P27	B1	<i>TP53</i>	c.747G>T	p.R249S	NM_000546.5	Missense	snv	EX7	71.82
P27	T1	<i>RB1</i>	c.2106+1G>A	.	NM_000321.2	splice-5	snv	IVS20	74.26
P27	T1	<i>ROS1</i>	c.4424T>A	p.L1475H	NM_002944.2	Missense	snv	EX27	60.86
P27	T1	<i>FAT1</i>	c.8194A>T	p.T2732S	NM_005245.3	Missense	snv	EX10	53.11
P27	T1	<i>LRP1B</i>	c.12805+1G>T	.	NM_018557.2	splice-5	snv	IVS83	52.74
P27	T1	<i>FAT2</i>	c.613G>T	p.V205L	NM_001447.2	Missense	snv	EX1	36.43
P27	T1	<i>FANCA</i>	c.2882A>G	p.E961G	NM_000135.2	Missense	snv	EX30	34.32
P27	T1	<i>PMS1</i>	c.12G>T	p.L4F	NM_000534.4	Missense	snv	EX2	28.57
P27	T1	<i>HSP90AA1</i>	c.694A>G	p.I232V	NM_001017963.2	Missense	snv	EX4	27.90
P27	T1	<i>RECQL</i>	c.439C>G	p.Q147E	NM_002907.3	Missense	snv	EX5	6.29
P27	T1	<i>EPHB2</i>	c.1702C>T	p.R568W	NM_017449.3	Missense	snv	EX9	1.65
P27	T1	<i>AR</i>	c.2042T>C	p.I681T	NM_000044.3	Missense	snv	EX4	1.35
P27	T1	<i>RECQL</i>	gain		NM_002907.3		cnv	EX2- EX15E	326.74
P27	T1	<i>KRAS</i>	gain		NM_033360.2		cnv	EX2- EX6E	341.11
P27	T1	<i>BCL2</i>	gain		NM_000633.2		cnv	EX2- EX3E	312.39
P27	T1	<i>TP53</i>	c.747G>T	p.R249S	NM_000546.5	Missense	snv	EX7	73.76

P28	B1	<i>CDH11</i>	c.1044G>T	p.E348D	NM_001797.2	Missense	snv	EX8	32.04
P28	B1	<i>CDK13</i>	c.489C>A	p.S163R	NM_003718.4	Missense	snv	EX1	14.23
P28	B1	<i>CDKN1A</i>	c.281G>C	p.R94P	NM_078467.2	Missense	snv	EX3	10.18
P28	B1	<i>EGFR</i>	c.1883G>T	p.C628F	NM_005228.3	Missense	snv	EX16	18.15
P28	B1	<i>EGFR</i>	c.3231G>C	p.L1077F	NM_005228.3	Missense	snv	EX27	10.17
P28	B1	<i>EPHA7</i>	c.2615G>A	p.C872Y	NM_004440.3	Missense	snv	EX15	12.46
P28	B1	<i>ERBB2</i>	c.929C>T	p.S310F	NM_004448.2	Missense	snv	EX8	21.15
P28	B1	<i>ERBB4</i>	c.1933C>G	p.P645A	NM_005235.2	Missense	snv	EX16	2.49
P28	B1	<i>FLG</i>	c.8620G>T	p.V2874F	NM_002016.1	Missense	snv	EX3E	4.18
P28	B1	<i>FLT3</i>	c.1906G>T	p.G636*	NM_004119.2	Nonsense	snv	EX15	17.44
P28	B1	<i>FLT4</i>	c.109G>C	p.E37Q	NM_182925.4	Missense	snv	EX2	1.95
P28	B1	<i>FOXL2</i>	c.274G>T	p.E92*	NM_023067.3	Nonsense	snv	EX1E	10.55
P28	B1	<i>KAT6A</i>	c.5356C>G	p.L1786V	NM_001099412.1	Missense	snv	EX18E	20.54
P28	B1	<i>KIT</i>	c.2579G[3>2]	p.E861Sfs*5	NM_000222.2	Frameshift	del	EX18	11.27
P28	B1	<i>LRP1B</i>	c.11849_11850delG GinsAC	p.R3950N	NM_018557.2	Missense	delins	EX77	4.49
P28	B1	<i>MAGI2</i>	c.2665G>A	p.D889N	NM_012301.3	Missense	snv	EX16	18.67
P28	B1	<i>MAGI2</i>	c.2599G>C	p.E867Q	NM_012301.3	Missense	snv	EX16	12.87
P28	B1	<i>NRAS</i>	c.291-1G>C	.	NM_002524.4	splice-3	snv	IVS3	16.63
P28	B1	<i>TP53</i>	c.488A>G	p.Y163C	NM_000546.5	Missense	snv	EX5	23.21
P28	B2	<i>ASXL1</i>	c.1450G>T	p.E484*	NM_015338.5	Nonsense	snv	EX12	0.68
P28	B2	<i>STAG2</i>	c.2470G>T	p.E824*	NM_001042749.1	Nonsense	snv	EX25	0.61
P28	T1	<i>CDH11</i>	c.1044G>T	p.E348D	NM_001797.2	Missense	snv	EX8	97.64
P28	T1	<i>FLT3</i>	c.1906G>T	p.G636*	NM_004119.2	Nonsense	snv	EX15	95.56
P28	T1	<i>ERBB2</i>	c.929C>T	p.S310F	NM_004448.2	Missense	snv	EX8	64.84
P28	T1	<i>KAT6A</i>	c.5356C>G	p.L1786V	NM_001099412.1	Missense	snv	EX18E	54.96
P28	T1	<i>EPHA7</i>	c.2615G>A	p.C872Y	NM_004440.3	Missense	snv	EX15	51.74
P28	T1	<i>NRAS</i>	c.291-1G>C	.	NM_002524.4	splice-3	snv	IVS3	48.13
P28	T1	<i>MAGI2</i>	c.2665G>A	p.D889N	NM_012301.3	Missense	snv	EX16	47.84
P28	T1	<i>CDK13</i>	c.489C>A	p.S163R	NM_003718.4	Missense	snv	EX1	47.73
P28	T1	<i>MAGI2</i>	c.2599G>C	p.E867Q	NM_012301.3	Missense	snv	EX16	47.47
P28	T1	<i>EGFR</i>	c.1883G>T	p.C628F	NM_005228.3	Missense	snv	EX16	43.97
P28	T1	<i>CDKN1A</i>	c.281G>C	p.R94P	NM_078467.2	Missense	snv	EX3	40.99
P28	T1	<i>KIT</i>	c.2579G[3>2]	p.E861Sfs*5	NM_000222.2	Frameshift	del	EX18	31.05
P28	T1	<i>FOXL2</i>	c.274G>T	p.E92*	NM_023067.3	Nonsense	snv	EX1E	27.64
P28	T1	<i>LRP1B</i>	c.11849_11850delG GinsAC	p.R3950N	NM_018557.2	Missense	delins	EX77	26.77
P28	T1	<i>EGFR</i>	c.3231G>C	p.L1077F	NM_005228.3	Missense	snv	EX27	22.75
P28	T1	<i>ERBB4</i>	c.1933C>G	p.P645A	NM_005235.2	Missense	snv	EX16	17.82
P28	T1	<i>FLG</i>	c.8620G>T	p.V2874F	NM_002016.1	Missense	snv	EX3E	13.76
P28	T1	<i>FLT4</i>	c.109G>C	p.E37Q	NM_182925.4	Missense	snv	EX2	10.51
P28	T1	<i>C1S</i>	c.1697T>G	p.L566R	NM_001734.3	Missense	snv	EX12E	1.38
P28	T1	<i>BCL2L1</i>	gain		NM_138578.1		cnv	EX2-	559.42

									EX3E
P28	T1	<i>TP53</i>	c.488A>G	p.Y163C	NM_000546.5	Missense	snv	EX5	96.01
P29	B1	<i>RB1</i>	c.865A[5>6]	p.N290Kfs*20	NM_000321.2	Frameshift	ins	EX9	11.66
P29	B1	<i>ERBB4</i>	c.1019G>T	p.G340V	NM_005235.2	Missense	snv	EX9	8.71
P29	B1	<i>NSD1</i>	c.5229G>C	p.W1743C	NM_022455.4	Missense	snv	EX15	1.25
P29	B2	<i>RB1</i>	c.865A[5>6]	p.N290Kfs*20	NM_000321.2	Frameshift	ins	EX9	8.05
P29	B2	<i>ERBB4</i>	c.1019G>T	p.G340V	NM_005235.2	Missense	snv	EX9	5.27
P29	B2	<i>SH2B3</i>	c.111G[2>3]	p.A38Gfs*85	NM_005475.2	Frameshift	ins	EX2	1.80
P29	B4	<i>RB1</i>	c.865A[5>6]	p.N290Kfs*20	NM_000321.2	Frameshift	ins	EX9	21.39
P29	B4	<i>ERBB4</i>	c.1019G>T	p.G340V	NM_005235.2	Missense	snv	EX9	16.22
P29	B4	<i>EXT2</i>	c.1517G>A	p.R506Q	NM_207122.1	Missense	snv	EX10	0.72
P29	T1	<i>RB1</i>	c.865A[5>6]	p.N290Kfs*20	NM_000321.2	Frameshift	ins	EX9	76.42
P29	T1	<i>ERBB4</i>	c.1019G>T	p.G340V	NM_005235.2	Missense	snv	EX9	44.26
P29	T1	<i>NSD1</i>	c.5229G>C	p.W1743C	NM_022455.4	Missense	snv	EX15	37.67
P30	B1	<i>AKT2</i>	c.577G>T	p.E193*	NM_001626.4	Nonsense	snv	EX7	0.95
P30	B1	<i>BTK</i>	c.215A>T	p.N72I	NM_000061.2	Missense	snv	EX3	18.07
P30	B1	<i>CSMD3</i>	c.11055C>A	p.N3685K	NM_198123.1	Missense	snv	EX71E	7.93
P30	B1	<i>FLT1</i>	c.2842G>C	p.G948R	NM_002019.4	Missense	snv	EX21	9.06
P30	B1	<i>IL7R</i>	c.5C>T	p.T2I	NM_002185.3	Missense	snv	EX1	7.16
P30	B1	<i>LRP1B</i>	c.12355_12357delin sACG	p.H4119T	NM_018557.2	cds-delins	delins	EX81	6.05
P30	B1	<i>NOTCH1</i>	c.4781G[3>2]	p.E1595Sfs*21	NM_017617.3	Frameshift	del	EX26	9.66
P30	B1	<i>SF3B1</i>	c.2435C>A	p.P812H	NM_012433.2	Missense	snv	EX17	7.81
P30	B1	<i>SMAD3</i>	c.748G>T	p.A250S	NM_005902.3	Missense	snv	EX6	7.66
P30	B1	<i>TPM3</i>	c.623G>C	p.R208T	NM_001043353.1	Missense	snv	EX7	7.19
P30	B1	<i>ZFPM2</i>	c.1091G>C	p.R364P	NM_012082.3	Missense	snv	EX8E	6.82
P30	B1	<i>TP53</i>	c.811G>A	p.E271K	NM_000546.5	Missense	snv	EX8	9.21
P30	B2	-	-	-	-	-	-	-	-
P30	T1	<i>BTK</i>	c.215A>T	p.N72I	NM_000061.2	Missense	snv	EX3	81.28
P30	T1	<i>CSMD3</i>	c.11055C>A	p.N3685K	NM_198123.1	Missense	snv	EX71E	44.06
P30	T1	<i>FLT1</i>	c.2842G>C	p.G948R	NM_002019.4	Missense	snv	EX21	43.24
P30	T1	<i>SMAD3</i>	c.748G>T	p.A250S	NM_005902.3	Missense	snv	EX6	43.05
P30	T1	<i>NOTCH1</i>	c.4781G[3>2]	p.E1595Sfs*21	NM_017617.3	Frameshift	del	EX26	42.95
P30	T1	<i>ZFPM2</i>	c.1091G>C	p.R364P	NM_012082.3	Missense	snv	EX8E	42.14
P30	T1	<i>SF3B1</i>	c.2435C>A	p.P812H	NM_012433.2	Missense	snv	EX17	41.42
P30	T1	<i>TPM3</i>	c.623G>C	p.R208T	NM_001043353.1	Missense	snv	EX7	40.11
P30	T1	<i>IL7R</i>	c.5C>T	p.T2I	NM_002185.3	Missense	snv	EX1	39.13
P30	T1	<i>LRP1B</i>	c.12355_12357delin sACG	p.H4119T	NM_018557.2	cds-delins	delins	EX81	35.60
P30	T1	<i>PTPRD</i>	c.5456G>A	p.G1819E	NM_002839.3	Missense	snv	EX44	1.92
P30	T1	<i>TP53</i>	c.811G>A	p.E271K	NM_000546.5	Missense	snv	EX8	79.02
P31	B1	<i>APC</i>	c.5363G>A	p.R1788H	NM_000038.5	Missense	snv	EX16E	41.53
P31	B1	<i>ASXL1</i>	c.3556A>T	p.T1186S	NM_015338.5	Missense	snv	EX13E	2.66

P31	B1	<i>CCND1</i>	gain		NM_053056.2		cnv	EX1- EX5E	324.74
P31	B1	<i>FANCA</i>	c.187G>C	p.E63Q	NM_000135.2	Missense	snv	EX2	2.31
P31	B1	<i>FGF19</i>	gain		NM_005117.2		cnv	EX1- EX3E	334.43
P31	B1	<i>FGF3</i>	gain		NM_005247.2		cnv	EX1- EX3E	375.16
P31	B1	<i>FGF4</i>	gain		NM_002007.2		cnv	EX1- EX3E	368.36
P31	B1	<i>KIT</i>	c.2446G>T	p.D816Y	NM_000222.2	Missense	snv	EX17	10.97
P31	B1	<i>SETD2</i>	c.4993G>T	p.D1665Y	NM_014159.6	Missense	snv	EX8	39.15
P31	B1	<i>TP73</i>	c.967G[4>3]	p.A324Pfs*21	NM_005427.3	Frameshift	del	EX8	42.18
P31	B1	<i>ZFH3</i>	c.2864C>A	p.T955K	NM_006885.3	Missense	snv	EX3	25.92
P31	B1	<i>TP53</i>	c.215_216delCCins T	p.P72Lfs*51	NM_000546.5	Frameshift	delins	EX4	36.08
P31	B2	<i>TP73</i>	c.967G[4>3]	p.A324Pfs*21	NM_005427.3	Frameshift	del	EX8	2.97
P31	B2	<i>AKT3</i>	c.1237G>A	p.V413I	NM_005465.4	Missense	snv	EX11	1.59
P31	B2	<i>SETD2</i>	c.4993G>T	p.D1665Y	NM_014159.6	Missense	snv	EX8	1.46
P31	B2	<i>APC</i>	c.5363G>A	p.R1788H	NM_000038.5	Missense	snv	EX16E	1.23
P31	B2	<i>PPM1D</i>	c.1378A[2>1]	p.N460Mfs*5	NM_003620.3	Frameshift	del	EX6E	1.2
P31	B2	<i>ZFH3</i>	c.2864C>A	p.T955K	NM_006885.3	Missense	snv	EX3	1.11
P31	B2	<i>PTCH1</i>	c.316CTC[2>1]	p.L106[2>1]	NM_000264.3	cds-del	del	EX2	0.78
P31	B2	<i>SMARCA4</i>	c.863C>T	p.P288L	NM_003072.3	Missense	snv	EX6	0.72
P31	B2	<i>KIT</i>	c.2446G>T	p.D816Y	NM_000222.2	Missense	snv	EX17	0.15
P31	B2	<i>TP53</i>	c.215_216delCCins T	p.P72Lfs*51	NM_000546.5	Frameshift	delins	EX4	1.16
P31	B4	<i>TP73</i>	c.967G[4>3]	p.A324Pfs*21	NM_005427.3	Frameshift	del	EX8	6.62
P31	B4	<i>SETD2</i>	c.4993G>T	p.D1665Y	NM_014159.6	Missense	snv	EX8	5.94
P31	B4	<i>APC</i>	c.5363G>A	p.R1788H	NM_000038.5	Missense	snv	EX16E	4.06
P31	B4	<i>ZFH3</i>	c.2864C>A	p.T955K	NM_006885.3	Missense	snv	EX3	3.35
P31	B4	<i>AKT3</i>	c.1237G>A	p.V413I	NM_005465.4	Missense	snv	EX11	2.52
P31	B4	<i>PPM1D</i>	c.1378A[2>1]	p.N460Mfs*5	NM_003620.3	Frameshift	del	EX6E	2.0
P31	B4	<i>KIT</i>	c.2446G>T	p.D816Y	NM_000222.2	Missense	snv	EX17	1.37
P31	B4	<i>PTCH1</i>	c.316CTC[2>1]	p.L106[2>1]	NM_000264.3	cds-del	del	EX2	0.81
P31	B4	<i>ASXL1</i>	c.3556A>T	p.T1186S	NM_015338.5	Missense	snv	EX13E	0.75
P31	B4	<i>CHEK2</i>	c.208G>T	p.E70*	NM_007194.3	Nonsense	snv	EX2	0.52
P31	B4	<i>DNMT3A</i>	c.1138G>C	p.A380P	NM_022552.4	Missense	snv	EX10	1
P31	B4	<i>TP53</i>	c.215_216delCCins T	p.P72Lfs*51	NM_000546.5	Frameshift	delins	EX4	4.84
P31	T1	<i>SETD2</i>	c.4993G>T	p.D1665Y	NM_014159.6	Missense	snv	EX8	75.75
P31	T1	<i>APC</i>	c.5363G>A	p.R1788H	NM_000038.5	Missense	snv	EX16E	73.88
P31	T1	<i>TP73</i>	c.967G[4>3]	p.A324Pfs*21	NM_005427.3	Frameshift	del	EX8	62.68
P31	T1	<i>ZFH3</i>	c.2864C>A	p.T955K	NM_006885.3	Missense	snv	EX3	45.94

P31	T1	<i>KIT</i>	c.2446G>T	p.D816Y	NM_000222.2	Missense	snv	EX17	22.93
P31	T1	<i>CCND1</i>	gain		NM_053056.2		cnv	EX1- EX5E	553.59
P31	T1	<i>FGF19</i>	gain		NM_005117.2		cnv	EX1- EX3E	526.65
P31	T1	<i>FGF4</i>	gain		NM_002007.2		cnv	EX1- EX3E	555.71
P31	T1	<i>FGF3</i>	gain		NM_005247.2		cnv	EX1- EX3E	580.89
P31	T1	<i>TP53</i>	c.215_216delCCins T	p.P72Lfs*51	NM_000546.5	Frameshift	delins	EX4	68.18
P32	B1	<i>RB1</i>	c.1901C>G	p.S634*	NM_000321.2	Nonsense	snv	EX19	27.64
P32	B1	<i>DOT1L</i>	c.3269A>T	p.K1090M	NM_032482.2	Missense	snv	EX24	13.02
P32	B1	<i>FAT1</i>	c.1790A>G	p.D597G	NM_005245.3	Missense	snv	EX2	13.09
P32	B1	<i>FAT2</i>	c.4048G>C	p.D1350H	NM_001447.2	Missense	snv	EX5	15.25
P32	B1	<i>FLCN</i>	c.753G>A	p.W251*	NM_144997.5	Nonsense	snv	EX7	10.01
P32	B1	<i>FLT4</i>	c.3680C>G	p.A1227G	NM_182925.4	Missense	snv	EX27	14.39
P32	B1	<i>HOXA9</i>	c.616A>G	p.T206A	NM_152739.3	Missense	snv	EX2E	11.42
P32	B1	<i>KCNQ2</i>	c.1508C>A	p.S503*	NM_172107.2	Nonsense	snv	EX13	11.66
P32	B1	<i>KDM6A</i>	c.1232A>G	p.N411S	NM_021140.2	Missense	snv	EX13	16.25
P32	B1	<i>MEF2C</i>	c.461T>A	p.V154E	NM_001131005.2	Missense	snv	EX6	16.56
P32	B1	<i>MLL3</i>	c.13902G>A	p.W4634*	NM_170606.2	Nonsense	snv	EX53	13.48
P32	B1	<i>MYC</i>	c.292C>T	p.R98W	NM_002467.4	Missense	snv	EX2	0.53
P32	B1	<i>NOTCH1</i>	c.1063G>A	p.A355T	NM_017617.3	Missense	snv	EX6	10.60
P32	B1	<i>PTEN</i>	c.164+1G>C	.	NM_000314.4	splice-5	snv	IVS2	18.17
P32	B1	<i>PTPRU</i>	c.2668G>A	p.E890K	NM_005704.4	Missense	snv	EX17	0.70
P32	B1	<i>ROS1</i>	c.3724C>A	p.L1242M	NM_002944.2	Missense	snv	EX24	11.35
P32	B1	<i>TP53</i>	c.673-2A>G	.	NM_000546.5	splice-3	snv	IVS6	14.28
P32	B2	<i>RB1</i>	c.1901C>G	p.S634*	NM_000321.2	Nonsense	snv	EX19	2.17
P32	B2	<i>FAM5C</i>	c.1268C>T	p.T423M	NM_199051.1	Missense	snv	EX8E	1.24
P32	B2	<i>PTEN</i>	c.164+1G>C	.	NM_000314.4	splice-5	snv	IVS2	1.18
P32	B2	<i>MEF2C</i>	c.461T>A	p.V154E	NM_001131005.2	Missense	snv	EX6	1.07
P32	B2	<i>FAT2</i>	c.4048G>C	p.D1350H	NM_001447.2	Missense	snv	EX5	0.97
P32	B2	<i>DOT1L</i>	c.3269A>T	p.K1090M	NM_032482.2	Missense	snv	EX24	0.94
P32	B2	<i>KCNQ2</i>	c.1508C>A	p.S503*	NM_172107.2	Nonsense	snv	EX13	0.91
P32	B2	<i>HOXA9</i>	c.616A>G	p.T206A	NM_152739.3	Missense	snv	EX2E	0.91
P32	B2	<i>ROS1</i>	c.3724C>A	p.L1242M	NM_002944.2	Missense	snv	EX24	0.85
P32	B2	<i>FLT4</i>	c.3680C>G	p.A1227G	NM_182925.4	Missense	snv	EX27	0.83
P32	B2	<i>NOTCH1</i>	c.1063G>A	p.A355T	NM_017617.3	Missense	snv	EX6	0.81
P32	B2	<i>TET2</i>	c.3456_3457delAGi nsTA	p.A1153T	NM_001127208.2	Missense	delins	EX4	0.68
P32	B2	<i>FAT1</i>	c.1790A>G	p.D597G	NM_005245.3	Missense	snv	EX2	0.64
P32	B2	<i>MLL3</i>	c.13902G>A	p.W4634*	NM_170606.2	Nonsense	snv	EX53	0.52

P32	B2	<i>FLCN</i>	c.753G>A	p.W251*	NM_144997.5	Nonsense	snv	EX7	0.52
P32	B2	<i>TP53</i>	c.673-2A>G	.	NM_000546.5	splice-3	snv	IVS6	0.55
P32	B4	<i>RB1</i>	c.1901C>G	p.S634*	NM_000321.2	Nonsense	snv	EX19	34.01
P32	B4	<i>FAT2</i>	c.4048G>C	p.D1350H	NM_001447.2	Missense	snv	EX5	22.39
P32	B4	<i>KDM6A</i>	c.1232A>G	p.N411S	NM_021140.2	Missense	snv	EX13	22.01
P32	B4	<i>FLT4</i>	c.3680C>G	p.A1227G	NM_182925.4	Missense	snv	EX27	21.50
P32	B4	<i>MEF2C</i>	c.461T>A	p.V154E	NM_001131005.2	Missense	snv	EX6	21.42
P32	B4	<i>PTEN</i>	c.164+1G>C	.	NM_000314.4	splice-5	snv	IVS2	20.58
P32	B4	<i>MLL3</i>	c.13902G>A	p.W4634*	NM_170606.2	Nonsense	snv	EX53	17.53
P32	B4	<i>DOT1L</i>	c.3269A>T	p.K1090M	NM_032482.2	Missense	snv	EX24	17.33
P32	B4	<i>FAT1</i>	c.1790A>G	p.D597G	NM_005245.3	Missense	snv	EX2	16.75
P32	B4	<i>KCNQ2</i>	c.1508C>A	p.S503*	NM_172107.2	Nonsense	snv	EX13	15.72
P32	B4	<i>ROS1</i>	c.3724C>A	p.L1242M	NM_002944.2	Missense	snv	EX24	15.00
P32	B4	<i>NOTCH1</i>	c.1063G>A	p.A355T	NM_017617.3	Missense	snv	EX6	14.30
P32	B4	<i>FLCN</i>	c.753G>A	p.W251*	NM_144997.5	Nonsense	snv	EX7	14.04
P32	B4	<i>HOXA9</i>	c.616A>G	p.T206A	NM_152739.3	Missense	snv	EX2E	13.64
P32	B4	<i>TP53</i>	c.673-2A>G	.	NM_000546.5	splice-3	snv	IVS6	19.77
P32	T1	<i>RB1</i>	c.1901C>G	p.S634*	NM_000321.2	Nonsense	snv	EX19	78.03
P32	T1	<i>KDM6A</i>	c.1232A>G	p.N411S	NM_021140.2	Missense	snv	EX13	74.69
P32	T1	<i>PTEN</i>	c.164+1G>C	.	NM_000314.4	splice-5	snv	IVS2	71.57
P32	T1	<i>FAT1</i>	c.1790A>G	p.D597G	NM_005245.3	Missense	snv	EX2	62.38
P32	T1	<i>FLT4</i>	c.3680C>G	p.A1227G	NM_182925.4	Missense	snv	EX27	41.64
P32	T1	<i>FAT2</i>	c.4048G>C	p.D1350H	NM_001447.2	Missense	snv	EX5	39.93
P32	T1	<i>MLL3</i>	c.13902G>A	p.W4634*	NM_170606.2	Nonsense	snv	EX53	39.58
P32	T1	<i>ROS1</i>	c.3724C>A	p.L1242M	NM_002944.2	Missense	snv	EX24	38.86
P32	T1	<i>DOT1L</i>	c.3269A>T	p.K1090M	NM_032482.2	Missense	snv	EX24	37.76
P32	T1	<i>NOTCH1</i>	c.1063G>A	p.A355T	NM_017617.3	Missense	snv	EX6	37.56
P32	T1	<i>MEF2C</i>	c.461T>A	p.V154E	NM_001131005.2	Missense	snv	EX6	36.93
P32	T1	<i>KCNQ2</i>	c.1508C>A	p.S503*	NM_172107.2	Nonsense	snv	EX13	36.18
P32	T1	<i>HOXA9</i>	c.616A>G	p.T206A	NM_152739.3	Missense	snv	EX2E	34.28
P32	T1	<i>FLCN</i>	c.753G>A	p.W251*	NM_144997.5	Nonsense	snv	EX7	30.21
P32	T1	<i>TP53</i>	c.673-2A>G	.	NM_000546.5	splice-3	snv	IVS6	61.93
P33	B1	<i>RB1</i>	c.1631GA[2>1]	p.E545Nfs*9	NM_000321.2	Frameshift	del	EX17	40.20
P33	B1	<i>ATRX</i>	c.1445A>T	p.E482V	NM_000489.3	Missense	snv	EX9	33.27
P33	B1	<i>BCOR</i>	c.165+2T>C	.	NM_001123385.1	splice-5	snv	IVS3	66.34
P33	B1	<i>DICER1</i>	c.2804G>T	p.R935I	NM_030621.3	Missense	snv	EX18	16.22
P33	B1	<i>EMID2</i>	c.235G>A	p.V79M	NM_133457.2	Missense	snv	EX2	19.50
P33	B1	<i>ESR1</i>	c.899G>T	p.R300L	NM_001122740.1	Missense	snv	EX5	19.53
P33	B1	<i>LRP1B</i>	c.11774G>T	p.G3925V	NM_018557.2	Missense	snv	EX77	31.37
P33	B1	<i>LRP1B</i>	c.7417G>T	p.G2473*	NM_018557.2	Nonsense	snv	EX45	30.08
P33	B1	<i>MLL2</i>	c.4204C>T	p.Q1402*	NM_003482.3	Nonsense	snv	EX14	32.82
P33	B1	<i>OR5L2</i>	c.163C>A	p.L55I	NM_001004739.1	Missense	snv	EX1E	36.55
P33	B1	<i>PIK3CB</i>	c.1619A>C	p.E540A	NM_006219.2	Missense	snv	EX11	35.17

P33	B1	<i>TLR4</i>	c.2390G>T	p.W797L	NM_138554.4	Missense	snv	EX3E	53.32
P33	B1	<i>TP73</i>	c.3G>T	p.0?	NM_005427.3	init-loss	snv	EX2	35.34
P33	B1	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	50.47
P33	B2	-	-	-	-	-	-	-	-
P33	B3	<i>MDC1</i>	c.4795T>G	p.C1599G	NM_014641.2	Missense	snv	EX10	2.72
P33	B3	<i>PPM1D</i>	c.1281G>A	p.W427*	NM_003620.3	Nonsense	snv	EX6E	1.1
P33	B3	<i>ABL2</i>	c.2920C>T	p.R974*	NM_007314.3	Nonsense	snv	EX12E	0.80
P33	B3	<i>TP53</i>	c.896_900delTGCC C	p.L299Pfs*5	NM_000546.5	Frameshift	del	EX8	0.87
P33	T1	<i>RB1</i>	c.1631GA[2>1]	p.E545Nfs*9	NM_000321.2	Frameshift	del	EX17	13.46
P33	T1	<i>BCOR</i>	c.165+2T>C	.	NM_001123385.1	splice-5	snv	IVS3	21.28
P33	T1	<i>ATRX</i>	c.1445A>T	p.E482V	NM_000489.3	Missense	snv	EX9	20.37
P33	T1	<i>PIK3CB</i>	c.1619A>C	p.E540A	NM_006219.2	Missense	snv	EX11	17.89
P33	T1	<i>TP73</i>	c.3G>T	p.0?	NM_005427.3	init-loss	snv	EX2	15.79
P33	T1	<i>LRP1B</i>	c.11774G>T	p.G3925V	NM_018557.2	Missense	snv	EX77	14.61
P33	T1	<i>OR5L2</i>	c.163C>A	p.L55I	NM_001004739.1	Missense	snv	EX1E	12.71
P33	T1	<i>TLR4</i>	c.2390G>T	p.W797L	NM_138554.4	Missense	snv	EX3E	12.40
P33	T1	<i>MLL2</i>	c.4204C>T	p.Q1402*	NM_003482.3	Nonsense	snv	EX14	12.16
P33	T1	<i>LRP1B</i>	c.7417G>T	p.G2473*	NM_018557.2	Nonsense	snv	EX45	10.75
P33	T1	<i>DICER1</i>	c.2804G>T	p.R935I	NM_030621.3	Missense	snv	EX18	7.34
P33	T1	<i>EMID2</i>	c.235G>A	p.V79M	NM_133457.2	Missense	snv	EX2	6.94
P33	T1	<i>ATM</i>	c.6327G>T	p.W2109C	NM_000051.3	Missense	snv	EX43	5.71
P33	T1	<i>ESR1</i>	c.899G>T	p.R300L	NM_001122740.1	Missense	snv	EX5	4.79
P33	T1	<i>TP53</i>	c.920-1G>T	.	NM_000546.5	splice-3	snv	IVS8	17.12
P34	B1	<i>RB1</i>	c.769C>T	p.Q257*	NM_000321.2	Nonsense	snv	EX8	3.63
P34	B1	<i>FAT1</i>	c.7870G>T	p.D2624Y	NM_005245.3	Missense	snv	EX10	2.98
P34	B1	<i>FBXW7</i>	c.121C>T	p.Q41*	NM_033632.3	Nonsense	snv	EX2	2.81
P34	B1	<i>IRS2</i>	c.3491C>A	p.S1164Y	NM_003749.2	Missense	snv	EX1	0.85
P34	B1	<i>IRS2</i>	c.2834C>T	p.S945F	NM_003749.2	Missense	snv	EX1	0.83
P34	B1	<i>OPCML</i>	c.333G>T	p.Q111H	NM_001012393.1	Missense	snv	EX3	2.78
P34	B1	<i>PARP1</i>	c.565A>G	p.T189A	NM_001618.3	Missense	snv	EX4	3.74
P34	B1	<i>POLD1</i>	c.127G>T	p.E43*	NM_002691.3	Nonsense	snv	EX2	3.31
P34	B1	<i>PTEN</i>	c.469G>A	p.E157K	NM_000314.4	Missense	snv	EX5	1.64
P34	B1	<i>SLCO1B3</i>	c.776G>T	p.W259L	NM_019844.3	Missense	snv	EX9	2.82
P34	B1	<i>TP63</i>	c.431C>T	p.T144M	NM_003722.4	Missense	snv	EX4	1.51
P34	B1	<i>TP73</i>	c.802C>T	p.R268W	NM_005427.3	Missense	snv	EX7	0.57
P34	B1	<i>ZNF804B</i>	c.304T>C	p.W102R	NM_181646.2	Missense	snv	EX3	2.56
P34	B2	<i>TP63</i>	c.431C>T	p.T144M	NM_003722.4	Missense	snv	EX4	1.72
P34	B2	<i>MYC</i>	c.292C>T	p.R98W	NM_002467.4	Missense	snv	EX2	0.56
P34	B3	<i>TP63</i>	c.431C>T	p.T144M	NM_003722.4	Missense	snv	EX4	1.91
P34	T1	<i>RB1</i>	c.769C>T	p.Q257*	NM_000321.2	Nonsense	snv	EX8	77.41
P34	T1	<i>FBXW7</i>	c.121C>T	p.Q41*	NM_033632.3	Nonsense	snv	EX2	80.42
P34	T1	<i>FAT1</i>	c.7870G>T	p.D2624Y	NM_005245.3	Missense	snv	EX10	78.44

P34	T1	<i>ZNF804B</i>	c.304T>C	p.W102R	NM_181646.2	Missense	snv	EX3	44.95
P34	T1	<i>POLD1</i>	c.127G>T	p.E43*	NM_002691.3	Nonsense	snv	EX2	42.80
P34	T1	<i>PARP1</i>	c.565A>G	p.T189A	NM_001618.3	Missense	snv	EX4	42.46
P34	T1	<i>SLCO1B3</i>	c.776G>T	p.W259L	NM_019844.3	Missense	snv	EX9	40.24
P34	T1	<i>OPCML</i>	c.333G>T	p.Q111H	NM_001012393.1	Missense	snv	EX3	40.00
P34	T1	<i>PTEN</i>	c.469G>A	p.E157K	NM_000314.4	Missense	snv	EX5	23.95
P35	B1	<i>RB1</i>	c.763C>T	p.R255*	NM_000321.2	Nonsense	snv	EX8	14.41
P35	B1	<i>FAT1</i>	c.5770G[4>3]	p.E1925Rfs*20	NM_005245.3	Frameshift	del	EX10	2.93
P35	B1	<i>FAT2</i>	c.11785G>A	p.G3929S	NM_001447.2	Missense	snv	EX20	0.95
P35	B1	<i>IKZF1</i>	c.1537G>A	p.E513K	NM_006060.4	Missense	snv	EX8E	3.32
P35	B1	<i>P2RY8</i>	c.256C>A	p.R86S	NM_178129.4	Missense	snv	EX2E	3.72
P35	B1	<i>PIK3CG</i>	c.2776G>C	p.E926Q	NM_002649.2	Missense	snv	EX9	6.86
P35	B1	<i>POLD1</i>	c.1427C>T	p.A476V	NM_002691.3	Missense	snv	EX12	3.08
P35	B1	<i>ROBO3</i>	c.2584G>T	p.V862L	NM_022370.3	Missense	snv	EX16	4.51
P35	B1	<i>SI</i>	c.3180C>A	p.D1060E	NM_001041.3	Missense	snv	EX27	3.30
P35	B1	<i>ZBTB16</i>	c.835G>T	p.G279W	NM_006006.4	Missense	snv	EX2	3.72
P35	B1	<i>TP53</i>	c.646G>A	p.V216M	NM_000546.5	Missense	snv	EX6	8.88
P35	B2	<i>RB1</i>	c.763C>T	p.R255*	NM_000321.2	Nonsense	snv	EX8	10.82
P35	B2	<i>PIK3CG</i>	c.2776G>C	p.E926Q	NM_002649.2	Missense	snv	EX9	4.30
P35	B2	<i>ROBO3</i>	c.2584G>T	p.V862L	NM_022370.3	Missense	snv	EX16	2.84
P35	B2	<i>ZBTB16</i>	c.835G>T	p.G279W	NM_006006.4	Missense	snv	EX2	2.34
P35	B2	<i>IKZF1</i>	c.1537G>A	p.E513K	NM_006060.4	Missense	snv	EX8E	2.15
P35	B2	<i>FAT1</i>	c.5770G[4>3]	p.E1925Rfs*20	NM_005245.3	Frameshift	del	EX10	2.04
P35	B2	<i>SI</i>	c.3180C>A	p.D1060E	NM_001041.3	Missense	snv	EX27	1.91
P35	B2	<i>P2RY8</i>	c.256C>A	p.R86S	NM_178129.4	Missense	snv	EX2E	1.89
P35	B2	<i>POLD1</i>	c.1427C>T	p.A476V	NM_002691.3	Missense	snv	EX12	1.53
P35	B2	<i>TSC2</i>	c.3281_3284+24del CGAGGTGACTG CACCTTCCTTTC CTCCG	.	NM_000548.3	span	del	EX28- IVS28	0.74
P35	B2	<i>TP53</i>	c.646G>A	p.V216M	NM_000546.5	Missense	snv	EX6	5.38
P35	B4	<i>RB1</i>	c.763C>T	p.R255*	NM_000321.2	Nonsense	snv	EX8	31.58
P35	B4	<i>PIK3CG</i>	c.2776G>C	p.E926Q	NM_002649.2	Missense	snv	EX9	13.20
P35	B4	<i>ROBO3</i>	c.2584G>T	p.V862L	NM_022370.3	Missense	snv	EX16	11.42
P35	B4	<i>P2RY8</i>	c.256C>A	p.R86S	NM_178129.4	Missense	snv	EX2E	8.11
P35	B4	<i>ZBTB16</i>	c.835G>T	p.G279W	NM_006006.4	Missense	snv	EX2	7.87
P35	B4	<i>FAT1</i>	c.5770G[4>3]	p.E1925Rfs*20	NM_005245.3	Frameshift	del	EX10	7.74
P35	B4	<i>IKZF1</i>	c.1537G>A	p.E513K	NM_006060.4	Missense	snv	EX8E	7.00
P35	B4	<i>SI</i>	c.3180C>A	p.D1060E	NM_001041.3	Missense	snv	EX27	5.61
P35	B4	<i>POLD1</i>	c.1427C>T	p.A476V	NM_002691.3	Missense	snv	EX12	5.43
P35	B4	<i>TSC2</i>	c.3281_3284+24del CGAGGTGACTG CACCTTCCTTTC	.	NM_000548.3	span	del	EX28- IVS28	1.73

CTCCG									
P35	B4	<i>FAT2</i>	c.11785G>A	p.G3929S	NM_001447.2	Missense	snv	EX20	1.68
P35	B4	<i>TP53</i>	c.646G>A	p.V216M	NM_000546.5	Missense	snv	EX6	19.31
P35	T1	<i>RB1</i>	c.763C>T	p.R255*	NM_000321.2	Nonsense	snv	EX8	79.12
P35	T1	<i>PIK3CG</i>	c.2776G>C	p.E926Q	NM_002649.2	Missense	snv	EX9	49.68
P35	T1	<i>FAT1</i>	c.5770G[4>3]	p.E1925Rfs*20	NM_005245.3	Frameshift	del	EX10	29.91
P35	T1	<i>ROBO3</i>	c.2584G>T	p.V862L	NM_022370.3	Missense	snv	EX16	28.93
P35	T1	<i>ZBTB16</i>	c.835G>T	p.G279W	NM_006006.4	Missense	snv	EX2	28.82
P35	T1	<i>IKZF1</i>	c.1537G>A	p.E513K	NM_006060.4	Missense	snv	EX8E	24.92
P35	T1	<i>SI</i>	c.3180C>A	p.D1060E	NM_001041.3	Missense	snv	EX27	21.52
P35	T1	<i>P2RY8</i>	c.256C>A	p.R86S	NM_178129.4	Missense	snv	EX2E	20.45
P35	T1	<i>TSC2</i>	c.3281_3284+24del CGAGGTGACTG CACCTTCCTTTC	.	NM_000548.3	span	del	EX28- IVS28	18.71
CTCCG									
P35	T1	<i>POLD1</i>	c.1427C>T	p.A476V	NM_002691.3	Missense	snv	EX12	11.13
P35	T1	<i>PRKDC</i>	c.8479_8482delTC TG	p.S2827Kfs*42	NM_006904.6	Frameshift	del	EX62	7.21
P35	T1	<i>TP53</i>	c.646G>A	p.V216M	NM_000546.5	Missense	snv	EX6	65.02
P36	B1	<i>RB1</i>	c.381-2A>T	.	NM_000321.2	splice-3	snv	IVS3	17.19
P36	B1	<i>ACIN1</i>	c.50T>C	p.L17P	NM_014977.3	Missense	snv	EX1	3.29
P36	B1	<i>ALK</i>	c.2726C>A	p.A909D	NM_004304.4	Missense	snv	EX16	1.75
P36	B1	<i>ARID1A</i>	c.5301_5304delAC TT	p.E1767Dfs*2	NM_006015.4	Frameshift	del	EX20E	10.59
P36	B1	<i>CD5L</i>	c.186C>G	p.C62W	NM_005894.2	Missense	snv	EX3	10.09
P36	B1	<i>CDK8</i>	c.515-2A>T	.	NM_001260.1	splice-3	snv	IVS5	5.91
P36	B1	<i>CREBBP</i>	c.4307G>T	p.S1436I	NM_004380.2	Missense	snv	EX26	11.04
P36	B1	<i>EPHA3</i>	c.1557_1558delGAi nsTT	p.N520Y	NM_005233.5	Missense	delins	EX7	9.07
P36	B1	<i>NOTCH1</i>	c.1056C>G	p.D352E	NM_017617.3	Missense	snv	EX6	11.34
P36	B1	<i>TET1</i>	c.2106G>T	p.M702I	NM_030625.2	Missense	snv	EX4	7.25
P36	B1	<i>TP53</i>	c.796G>T	p.G266*	NM_000546.5	Nonsense	snv	EX8	12.37
P36	B2	-	-	-	-	-	-	-	-
P36	B3	<i>FGFR3</i>	c.2247C>G	p.D749E	NM_000142.4	Missense	snv	EX17	0.96
P36	B3	<i>DNMT3A</i>	c.2320G>A	p.E774K	NM_022552.4	Missense	snv	EX19	0.73
P37	B1	<i>APC</i>	c.1404A>T	p.E468D	NM_000038.5	Missense	snv	EX11	12.56
P37	B1	<i>BTK</i>	c.463T>A	p.C155S	NM_000061.2	Missense	snv	EX6	37.35
P37	B1	<i>BTLA</i>	c.289T>A	p.F97I	NM_181780.3	Missense	snv	EX2	3.40
P37	B1	<i>ERCC4</i>	c.487G>A	p.A163T	NM_005236.2	Missense	snv	EX3	1.13
P37	B1	<i>EXT1</i>	c.2031G>T	p.Q677H	NM_000127.2	Missense	snv	EX10	0.73
P37	B1	<i>FAM175A</i>	c.319G>T	p.D107Y	NM_139076.2	Missense	snv	EX5	8.20
P37	B1	<i>FAT1</i>	c.12194G>C	p.G4065A	NM_005245.3	Missense	snv	EX23	16.25
P37	B1	<i>FH</i>	c.104C>T	p.S35L	NM_000143.3	Missense	snv	EX1	33.25

P37	B1	<i>GRIN2A</i>	c.3130C>G	p.H1044D	NM_001134407.1	Missense	snv	EX13E	1.26
P37	B1	<i>GRM3</i>	c.1286A>C	p.K429T	NM_000840.2	Missense	snv	EX3	0.99
P37	B1	<i>LRP1B</i>	c.2459G>T	p.C820F	NM_018557.2	Missense	snv	EX15	12.61
P37	B1	<i>LRP1B</i>	c.3581G>C	p.G1194A	NM_018557.2	Missense	snv	EX23	11.86
P37	B1	<i>LRRC7</i>	c.32T>A	p.L11Q	NM_020794.2	Missense	snv	EX1	5.01
P37	B1	<i>MLL</i>	c.6500C>T	p.S2167F	NM_001197104.1	Missense	snv	EX26	45.69
P37	B1	<i>NFE2L2</i>	c.1027G>A	p.D343N	NM_006164.4	Missense	snv	EX5E	38.53
P37	B1	<i>NFE2L2</i>	c.101G>A	p.R34Q	NM_006164.4	Missense	snv	EX2	35.63
P37	B1	<i>NFE2L2</i>	c.664G>A	p.E222K	NM_006164.4	Missense	snv	EX5E	34.80
P37	B1	<i>NOTCH1</i>	c.566G>A	p.C189Y	NM_017617.3	Missense	snv	EX4	61.18
P37	B1	<i>RAD52</i>	c.1233G>C	p.K411N	NM_134424.2	Missense	snv	EX12E	5.61
P37	B1	<i>SLX4</i>	c.3386C>G	p.S1129*	NM_032444.2	Nonsense	snv	EX12	24.63
P37	B1	<i>SMAD2</i>	c.472G>A	p.D158N	NM_001003652.3	Missense	snv	EX4	1.14
P37	B1	<i>SMARCA4</i>	c.3340G>T	p.D1114Y	NM_003072.3	Missense	snv	EX24	37.86
P37	B1	<i>SMARCA4</i>	c.3058G>A	p.D1020N	NM_003072.3	Missense	snv	EX21	37.01
P37	B1	<i>SMARCA4</i>	c.3379G>A	p.D1127N	NM_003072.3	Missense	snv	EX24	36.22
P37	B1	<i>SMARCA4</i>	c.2447C>T	p.S816F	NM_003072.3	Missense	snv	EX17	26.03
P37	B1	<i>TP53</i>	c.994-2A>G	.	NM_000546.5	splice-3	snv	IVS9	55.83
P38	B1	<i>RB1</i>	c.2401G>T	p.G801*	NM_000321.2	Nonsense	snv	EX23	4.08
P38	B1	<i>AR</i>	c.2726C>T	p.S909F	NM_000044.3	Missense	snv	EX8E	6.64
P38	B1	<i>AXIN1</i>	c.1099C>T	p.P367S	NM_003502.3	Missense	snv	EX4	1.68
P38	B1	<i>CHEK2</i>	c.559T>C	p.S187P	NM_007194.3	Missense	snv	EX4	0.61
P38	B1	<i>CSMD1</i>	c.8737A>T	p.T2913S	NM_033225.5	Missense	snv	EX56	4.86
P38	B1	<i>FLT4</i>	c.997A>G	p.I333V	NM_182925.4	Missense	snv	EX8	3.43
P38	B1	<i>GLI2</i>	c.1393G[4>3]	p.E466Rfs*55	NM_005270.4	Frameshift	del	EX9	3.47
P38	B1	<i>LRP1B</i>	c.1157G>T	p.W386L	NM_018557.2	Missense	snv	EX8	4.84
P38	B1	<i>LRP1B</i>	c.2770+1G>T	.	NM_018557.2	splice-5	snv	IVS17	1.52
P38	B1	<i>NTRK1</i>	c.1509C>A	p.H503Q	NM_002529.3	Missense	snv	EX13	4.81
P38	B1	<i>OR6F1</i>	c.781C>G	p.R261G	NM_001005286.1	Missense	snv	EX1E	3.28
P38	B1	<i>PALB2</i>	c.2332A>T	p.S778C	NM_024675.3	Missense	snv	EX5	5.18
P38	B1	<i>PCK1</i>	c.1026G>T	p.K342N	NM_002591.3	Missense	snv	EX7	3.81
P38	B1	<i>SERPINB3</i>	c.1102C>T	p.P368S	NM_006919.2	Missense	snv	EX8E	5.04
P38	B1	<i>SPTA1</i>	c.2761A>G	p.I921V	NM_003126.2	Missense	snv	EX19	2.66
P38	B1	<i>TP53</i>	c.609_610delGGins CT	p.E204*	NM_000546.5	stop-gain	delins	EX6	5.62
P38	B2	<i>CHEK2</i>	c.559T>C	p.S187P	NM_007194.3	Missense	snv	EX4	0.83
P38	B2	<i>TP53</i>	c.470T>C	p.V157A	NM_000546.5	Missense	snv	EX5	0.77
P38	B2	<i>INPP4B</i>	c.2272G>A	p.E758K	NM_001101669.1	Missense	snv	EX22	0.63
P38	B4	<i>PPM1D</i>	c.1654C>T	p.R552*	NM_003620.3	Nonsense	snv	EX6E	0.61