

**Supplementary Table 4.** The somatic mutations in MSI gastric carcinomas (*N* = 66).

Sample	Gene	Function	Refseq ID	Exon	AA change	Chromosome	Start	Reference	Alteration	VAF
1	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon4	E602D	chr1	27059169	G	T	0.0347
1	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon18	P1651L	chr1	27101670	C	T	0.4530
1	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon20	A906T	chr1	65305412	C	T	0.0344
1	<i>MTOR</i>	splicing	NM_004958	exon59	c.7635-1G>T	chr1	11167558	C	A	0.0414
1	<i>MUTYH</i>	nonsynonymous SNV	NM_012222	exon12	F355L	chr1	45797447	A	G	0.4754
1	<i>NOTCH2</i>	nonsynonymous SNV	NM_024408	exon31	R1895C	chr1	120462033	G	A	0.0259
1	<i>NOTCH2</i>	nonsynonymous SNV	NM_024408	exon25	T1486M	chr1	120467982	G	A	0.0768
1	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon9	E297K	chr1	46727055	G	A	0.0967
1	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon25	D1246G	chr11	108153597	A	G	0.0488
1	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon7	R1510Q	chr11	92523302	G	A	0.0851
1	<i>MEN1</i>	nonsynonymous SNV	NM_130804	exon11	E471K	chr11	64572243	C	T	0.0728
1	<i>MEN1</i>	nonsynonymous SNV	NM_130804	exon7	R300W	chr11	64574512	G	A	0.0814
1	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	P483S	chr11	100998355	G	A	0.0296
1	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon8	G448R	chr12	52380684	G	A	0.0537
1	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon4	R257L	chr12	52374942	G	T	0.0298
1	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon6	S330F	chr12	52377837	C	T	0.0504
1	<i>CDK4</i>	nonsynonymous SNV	NM_000075	exon7	P254S	chr12	58143024	G	A	0.0121
1	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon26	H1320Y	chr12	6692466	G	A	0.0574
1	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon24	R1177C	chr12	6697052	G	A	0.0506
1	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon20	M1030I	chr12	6701082	C	A	0.0948
1	<i>FGF23</i>	nonsynonymous SNV	NM_020638	exon3	A236T	chr12	4479559	C	T	0.0266
1	<i>HNF1A</i>	nonsynonymous SNV	NM_000545	exon3	R200Q	chr12	121431395	G	A	0.0322
1	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon23	R1261W	chr12	416769	G	A	0.0330
1	<i>LRP6</i>	stopgain SNV	NM_002336	exon2	R129X	chr12	12397260	G	A	0.0805

1	<i>RAD52</i>	stopgain SNV	NM_134424	exon9	Q261X	chr12	1025594	G	A	0.0240
1	<i>FGF14</i>	nonsynonymous SNV	NM_004115	exon1	R52H	chr13	102568841	C	T	0.0451
1	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A1089P	chr13	110435136	C	G	0.0875
1	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	D193G	chr14	102552412	T	C	0.0388
1	<i>NKX2-1</i>	stopgain SNV	NM_001079668	exon2	Q84X	chr14	36988403	G	A	0.0402
1	<i>BLM</i>	nonsynonymous SNV	NM_000057	exon21	K1356E	chr15	91354626	A	G	0.0540
1	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0390
1	<i>IDH2</i>	nonsynonymous SNV	NM_002168	exon9	S365N	chr15	90628317	C	T	0.0207
1	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon19	E762G	chr15	88423550	T	C	0.0317
1	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon10	G791R	chr16	339531	C	T	0.0790
1	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	G722A	chr16	66436882	G	C	0.0198
1	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon2	A259T	chr16	3900321	C	T	0.0572
1	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	T2431M	chr16	3777756	G	A	0.0897
1	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	N2111Y	chr16	3778717	T	A	0.4570
1	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	R1875H	chr16	3779424	C	T	0.0859
1	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon2	P107L	chr16	3900776	G	A	0.0717
1	<i>PRSS8</i>	nonsynonymous SNV	NM_002773	exon3	A43V	chr16	31144685	G	A	0.0180
1	<i>SOCS1</i>	nonsynonymous SNV	NM_003745	exon2	R170H	chr16	11348827	C	T	0.0362
1	<i>SOCS1</i>	nonsynonymous SNV	NM_003745	exon2	Q108H	chr16	11349012	C	A	0.0291
1	<i>CDK12</i>	nonsynonymous SNV	NM_015083	exon3	Q695H	chr17	37646963	G	T	0.0563
1	<i>CDK12</i>	nonsynonymous SNV	NM_015083	exon3	P697S	chr17	37646967	C	T	0.4533
1	<i>MAP2K4</i>	stopgain SNV	NM_003010	exon1	Q38X	chr17	11924315	C	T	0.0456
1	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon46	I2419F	chr17	15935678	T	A	0.0760
1	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon35	L1738P	chr17	15967390	A	G	0.0780
1	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0230
1	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0262
1	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	P931L	chr17	29556425	C	T	0.0315

1	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon14	M905V	chr19	15354167	T	C	0.0572
1	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon10	S566N	chr19	42794617	G	A	0.0580
1	<i>JAK3</i>	stopgain SNV	NM_000215	exon20	Q915X	chr19	17942545	G	A	0.0193
1	<i>KEAP1</i>	nonsynonymous SNV	NM_203500	exon3	G372R	chr19	10602464	C	T	0.0149
1	<i>KEAP1</i>	nonsynonymous SNV	NM_203500	exon3	T277M	chr19	10602748	G	A	0.0220
1	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	T1307M	chr19	15288819	G	A	0.0395
1	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon20	C891R	chr19	11132455	T	C	0.0400
1	<i>U2AF2</i>	nonsynonymous SNV	NM_007279	exon12	R452H	chr19	56185361	G	A	0.0478
1	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon24	H1228Y	chr2	29436911	G	A	0.1028
1	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon11	R531H	chr2	141806752	C	T	0.4646
1	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon2	R128L	chr2	16082569	G	T	0.0269
1	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon7	S207G	chr20	31017757	A	G	0.0300
1	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	N271S	chr20	57429132	A	G	0.0572
1	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon26	Q1034R	chr20	39801256	A	G	0.0595
1	<i>EP300</i>	stopgain SNV	NM_001429	exon17	R1055X	chr22	41551019	C	T	0.0294
1	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon16	R636C	chr22	29695816	C	T	0.0655
1	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon3	A111T	chr22	30742363	C	T	0.0892
1	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon31	A1778T	chr3	142218517	C	T	0.0911
1	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon13	A477T	chr3	52437732	C	T	0.0140
1	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon6	G479S	chr3	187446253	C	T	0.0556
1	<i>EPHA6</i>	upstream	.	.	.	chr3	96533413	C	T	0.0775
1	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon3	H25R	chr3	128205801	T	C	0.0947
1	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon8	H406Y	chr3	185169121	C	T	0.0385
1	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon15	S941L	chr3	185200165	C	T	0.0655
1	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon2	R44C	chr3	51977501	C	T	0.0665
1	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon5	E160K	chr3	52696199	C	T	0.0245
1	<i>ROBO2</i>	stopgain SNV	NM_002942	exon3	R136X	chr3	77526582	C	T	0.0254

1	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon12	T1968K	chr3	47125367	G	T	0.0207
1	<i>TGFBR2</i>	splicing	NM_001024847	exon3	c.338+2T>C	chr3	30686409	T	C	0.0358
1	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon16	V891A	chr4	66201830	A	G	0.0485
1	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon12	I736T	chr4	66230764	A	G	0.0745
1	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon5	G203S	chr4	1803255	G	A	0.0497
1	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon8	R225H	chr4	20490504	G	A	0.4329
1	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon6	S1239Y	chr4	106164848	C	A	0.0698
1	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon17	C793Y	chr5	138268346	G	A	0.0154
1	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon44	R1480H	chr5	169484642	G	A	0.0619
1	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon10	S436L	chr5	180052983	G	A	0.0219
1	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon3	H99Y	chr5	180057660	G	A	0.0487
1	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon14	R853C	chr5	56177584	C	T	0.0342
1	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0391
1	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0332
1	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon10	R277W	chr5	170834761	C	T	0.0291
1	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon31	R1200Q	chr5	38950351	C	T	0.0672
1	<i>ESR1</i>	nonsynonymous SNV	NM_001122742	exon9	G494D	chr6	152415631	G	A	0.0385
1	<i>IRF4</i>	nonsynonymous SNV	NM_002460	exon2	R51H	chr6	393304	G	A	0.0801
1	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon19	A1021V	chr6	32171970	G	A	0.0127
1	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon12	L534P	chr6	117710671	A	G	0.0572
1	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon15	R866H	chr7	100403204	C	T	0.0327
1	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon15	P841L	chr7	100403279	G	A	0.0300
1	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0233
1	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon14	R544H	chr7	83610658	C	T	0.0543
1	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon44	S2117T	chr7	98556994	T	A	0.0179
1	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon8	Y337H	chr8	38279381	A	G	0.0300
1	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon7	G110D	chr8	93026865	C	T	0.0276

1	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon2	Y283C	chr8	9437843	A	G	0.0901
1	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon6	E297K	chr9	136913402	C	T	0.0912
1	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	S2471L	chr9	139390779	G	A	0.1159
1	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	T2132M	chr9	139391796	G	A	0.0616
1	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon28	G1753R	chr9	139396851	C	T	0.0235
1	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon25	G1477S	chr9	139399919	C	T	0.0198
1	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon20	V1099M	chr9	139402714	C	T	0.0615
1	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon4	R57S	chr9	87285834	A	T	0.1008
1	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon17	R715W	chr9	135779103	G	A	0.0855
1	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon11	S370P	chr9	135786422	A	G	0.0452
1	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon9	H1027D	chrX	76937669	G	C	0.0336
1	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon4	G513R	chrX	39933062	C	T	0.0550
1	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon20	K987E	chrX	44938411	A	G	0.0839
2	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R2081Q	chr1	16258977	G	A	0.0269
2	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon1	R557C	chr11	92086947	C	T	0.1455
2	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon6	V234I	chr12	46215265	G	A	0.4110
2	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon28	R1202W	chr12	56495414	C	T	0.5251
2	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon2	A20T	chr12	111856007	G	A	0.2627
2	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon6	E103K	chr13	113887585	G	A	0.1323
2	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon23	A1024T	chr13	28895704	C	T	0.1317
2	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	T844M	chr13	110435870	G	A	0.1502
2	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon5	R323Q	chr14	102551696	C	T	0.0233
2	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon21	S866L	chr15	93521483	C	T	0.1123
2	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0352
2	<i>PHLPP2</i>	nonsynonymous SNV	NM_015020	exon16	R829H	chr16	71689242	C	T	0.1580
2	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon46	R2391Q	chr17	15935761	C	T	0.0319
2	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0359

2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon11	R416Q	chr17	29528490	G	A	0.0290
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0370
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0453
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0231
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0311
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	T1574I	chr17	29588872	C	T	0.0313
2	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0372
2	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon23	D891N	chr17	78897336	G	A	0.4444
2	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon5	R175C	chr17	7578407	G	A	0.0118
2	<i>APCDD1</i>	splicing	NM_153000	exon4	c.775-2A>G	chr18	10485457	A	G	0.5028
2	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon10	A521T	chr18	25570098	C	T	0.1687
2	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon11	R783C	chr18	59221869	C	T	0.1674
2	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon21	P813L	chr19	2216983	C	T	0.4747
2	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon22	L850P	chr19	2217775	T	C	0.1508
2	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon22	D1293N	chr19	7117339	C	T	0.1399
2	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	S171N	chr2	30143014	C	T	0.4409
2	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon9	T407P	chr2	202149904	A	C	0.4185
2	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon52	R2777Q	chr2	141267565	C	T	0.4256
2	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon21	W1104L	chr2	141680542	C	A	0.1271
2	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon20	R778C	chr20	39796522	C	T	0.1350
2	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon5	A613T	chr22	23610679	G	A	0.4411
2	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0272
2	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon3	V64I	chr3	185146559	G	A	0.1269
2	<i>MITF</i>	nonsynonymous SNV	NM_001184967	exon7	R252S	chr3	70001012	G	T	0.1077
2	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon28	M1450T	chr3	78663884	A	G	0.1498
2	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon5	L164V	chr4	1803138	C	G	0.4384
2	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0325

2	<i>NPM1</i>	stopgain SNV	NM_002520	exon8	R197X	chr5	170827849	C	T	0.0387
2	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0283
2	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0290
2	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon13	R403Q	chr8	92988192	C	T	0.1247
2	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon4	D226N	chr9	133738219	G	A	0.1336
2	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon1	R3C	chr9	21994324	G	A	0.1323
2	<i>FANCG</i>	nonsynonymous SNV	NM_004629	exon4	A147T	chr9	35078209	C	T	0.3874
2	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	R2095C	chr9	139391908	G	A	0.1446
2	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon22	R1086Q	chr9	8376626	C	T	0.1062
3	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon14	E3593K	chr1	16265285	G	A	0.0382
3	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	P1735S	chr1	16257938	C	T	0.0581
3	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon3	Y68H	chr10	89685307	T	C	0.0871
3	<i>FGF23</i>	nonsynonymous SNV	NM_020638	exon3	P195H	chr12	4479681	G	T	0.1178
3	<i>HNF1A</i>	nonsynonymous SNV	NM_000545	exon3	T231M	chr12	121431488	C	T	0.1289
3	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon19	M604L	chr13	113914999	A	C	0.1076
3	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A1080V	chr13	110435162	G	A	0.0643
3	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon17	C685F	chr15	88472501	C	A	0.3277
3	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon2	S41R	chr16	396905	T	G	0.3203
3	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon3	A131T	chr16	10273878	C	T	0.2688
3	<i>NUP93</i>	nonsynonymous SNV	NM_014669	exon11	I394F	chr16	56865848	A	T	0.2997
3	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0336
3	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0372
3	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0347
3	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0294
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0422
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0387
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0269

3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0429
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0333
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0442
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	R1000C	chr17	29557285	C	T	0.0319
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	R1250W	chr17	29562668	C	T	0.0302
3	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0353
3	<i>NF1</i>	stopgain SNV	NM_001042492	exon29	Q1298X	chr17	29562957	C	T	0.0297
3	<i>AXL</i>	nonsynonymous SNV	NM_021913	exon6	L233P	chr19	41737118	T	C	0.2092
3	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0353
3	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon14	Y633H	chr19	17946750	A	G	0.1826
3	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon6	L285P	chr19	1221331	T	C	0.2309
3	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon7	G234R	chr2	25471061	C	T	0.1488
3	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon8	G302V	chr2	25470569	C	A	0.1046
3	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon4	R100Q	chr2	209113208	C	T	0.0431
3	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon6	I276T	chr2	141986775	A	G	0.1129
3	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	P219L	chr20	57428976	C	T	0.0876
3	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon12	R642C	chr22	30733706	G	A	0.1612
3	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon6	E459D	chr3	89445057	A	C	0.1228
3	<i>ETV5</i>	nonsynonymous SNV	NM_004454	exon3	R32M	chr3	185823452	C	A	0.0420
3	<i>FGF12</i>	nonsynonymous SNV	NM_004113	exon3	L23P	chr3	192078273	A	G	0.1212
3	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon12	A363V	chr3	52668831	G	A	0.1750
3	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon23	E1224D	chr3	77671495	A	C	0.1034
3	<i>VHL</i>	nonsynonymous SNV	NM_000551	exon1	D92Y	chr3	10183805	G	T	0.4497
3	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0411
3	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0764
3	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0338
3	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon2	A30G	chr6	106536122	C	G	0.4392



3	<i>ELMO1</i>	stopgain SNV	NM_001206480	exon4	Y48X	chr7	37354502	A	T	0.2644
3	<i>MET</i>	nonsynonymous SNV	NM_000245	exon3	G432C	chr7	116371815	G	T	0.0699
3	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0401
3	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0348
3	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0281
3	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon17	K689E	chr7	83590938	T	C	0.5659
3	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon2	L82P	chr7	83764135	A	G	0.0789
3	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon12	Q727H	chr7	128852109	G	T	0.0303
3	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon6	V382F	chr8	9562209	G	T	0.0825
3	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon6	I149T	chr8	87410682	T	C	0.5391
4	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	G217R	chr1	118166139	G	A	0.3420
4	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon6	H183Y	chr1	65335094	G	A	0.3653
4	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon30	R1489C	chr11	108163374	C	T	0.0244
4	<i>CBL</i>	nonsynonymous SNV	NM_005188	exon11	R593W	chr11	119156112	C	T	0.3591
4	<i>FGF4</i>	nonsynonymous SNV	NM_002007	exon1	V69I	chr11	69589648	C	T	0.2667
4	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon10	N521Y	chr12	52387814	A	T	0.0221
4	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon8	L332P	chr12	46230746	T	C	0.5874
4	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon15	I639L	chr13	28608051	T	G	0.2385
4	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	P877L	chr13	110435771	G	A	0.1459
4	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0304
4	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon14	C1448Y	chr16	9857058	C	T	0.1599
4	<i>SOCS1</i>	nonsynonymous SNV	NM_003745	exon2	R65Q	chr16	11349142	C	T	0.4708
4	<i>SOCS1</i>	nonsynonymous SNV	NM_003745	exon2	R56H	chr16	11349169	C	T	0.4543
4	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon2	P16A	chr16	2213967	C	G	0.4796
4	<i>MAP2K4</i>	upstream	.	.	.	chr17	11924096	T	C	0.2692
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0243
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0234

4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0247
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0319
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0240
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0306
4	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0211
4	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon10	R337L	chr17	7574017	C	A	0.3141
4	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0260
4	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon2	D159N	chr19	7267533	C	T	0.0227
4	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon21	R973Q	chr19	11134252	G	A	0.2974
4	<i>STK11</i>	splicing	NM_000455	exon2	c.291-2A>G	chr19	1218414	A	G	0.5233
4	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon19	R748H	chr20	39795441	G	A	0.0316
4	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0186
4	<i>NF2</i>	nonsynonymous SNV	NM_016418	exon13	P482L	chr22	30070929	C	T	0.4200
4	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon44	R2476C	chr3	142177877	G	A	0.3031
4	<i>ROBO1</i>	stopgain SNV	NM_002941	exon27	R1420X	chr3	78666809	G	A	0.0373
4	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon8	L364F	chr5	138221928	C	T	0.0732
4	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon14	R679Q	chr5	180048237	C	T	0.3260
4	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0447
4	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0346
4	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon7	R516W	chr6	93979282	G	A	0.0295
4	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	D281N	chr6	106552876	G	A	0.0263
4	<i>HGF</i>	stopgain SNV	NM_000601	exon9	R350X	chr7	81355326	G	A	0.2998
4	<i>IKZF1</i>	stopgain SNV	NM_006060	exon7	G257X	chr7	50459480	G	T	0.3066
4	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon6	D819N	chr7	106520027	G	A	0.3766
4	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0174
4	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0230
4	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon5	T209M	chr9	136915584	G	A	0.1360

4	<i>STAG2</i>	nonsynonymous SNV	NM_001042749	exon20	Y636C	chrX	123197783	A	G	0.4269
5	<i>CHUK</i>	stopgain SNV	NM_001278	exon2	R57X	chr10	101985711	G	A	0.0598
5	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon7	H259Q	chr10	89717752	C	A	0.0357
5	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon2	K24N	chr11	108098423	G	T	0.0541
5	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon6	F219I	chr12	56481620	T	A	0.0746
5	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	D494N	chr13	110436921	C	T	0.0844
5	<i>BLM</i>	nonsynonymous SNV	NM_000057	exon15	Q975E	chr15	91333978	C	G	0.4599
5	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0368
5	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0290
5	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0237
5	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon3	R256H	chr19	7184534	C	T	0.0449
5	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon9	A397V	chr19	1226534	C	T	0.4870
5	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon5	E223K	chr19	1220649	G	A	0.0373
5	<i>PAK7</i>	nonsynonymous SNV	NM_020341	exon8	I569V	chr20	9538293	T	C	0.4548
5	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0374
5	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	A496P	chr22	29091133	C	G	0.4169
5	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0462
5	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	T199I	chr5	170827856	C	T	0.4597
5	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon6	E405Q	chr7	100417263	C	G	0.0696
5	<i>INHBA</i>	stopgain SNV	NM_002192	exon3	W218X	chr7	41729876	C	T	0.0460
5	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0305
6	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon6	A121V	chr1	206649527	C	T	0.0605
6	<i>JUN</i>	nonsynonymous SNV	NM_002228	exon1	V284L	chr1	59247893	C	G	0.2248
6	<i>NTRK1</i>	nonsynonymous SNV	NM_001007792	exon4	R74C	chr1	156834542	C	T	0.1303
6	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon7	T319P	chr1	226573261	T	G	0.0488
6	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon62	R2993Q	chr11	108235936	G	A	0.0583
6	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon4	S1314Y	chr11	92495293	C	A	0.4653

6	<i>LRP6</i>	nonsynonymous SNV	NM_002336	exon23	A1553S	chr12	12274245	C	A	0.0390
6	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon16	T2542M	chr13	32931886	C	T	0.1027
6	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon12	R485K	chr13	28609775	C	T	0.0393
6	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon14	C1403Y	chr14	45646165	G	A	0.1228
6	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	A254V	chr14	36986928	G	A	0.0791
6	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon26	A1100P	chr15	93528788	G	C	0.4091
6	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon6	R477H	chr16	348076	C	T	0.0541
6	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon3	N302D	chr16	364658	T	C	0.1509
6	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon20	E1228K	chr17	59760725	C	T	0.0483
6	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon8	R281Q	chr17	12028639	G	A	0.0692
6	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0479
6	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon38	D1781G	chr17	29654590	A	G	0.1803
6	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon5	A159V	chr17	7578454	G	A	0.1707
6	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon10	R863H	chr19	42795508	G	A	0.4358
6	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon5	R101W	chr19	2191047	C	T	0.0502
6	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon27	G1315S	chr19	2226463	G	A	0.2713
6	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon30	S1380R	chr19	11145776	A	C	0.0875
6	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	P106L	chr2	30143209	G	A	0.1638
6	<i>STAT4</i>	nonsynonymous SNV	NM_001243835	exon4	H100Y	chr2	191941027	G	A	0.1792
6	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon12	L1304F	chr20	31024425	C	T	0.0520
6	<i>EYA2</i>	nonsynonymous SNV	NM_005244	exon4	T64A	chr20	45633615	A	G	0.5833
6	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	S340Y	chr20	57429339	C	A	0.0718
6	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0508
6	<i>NF2</i>	nonsynonymous SNV	NM_016418	exon11	M363I	chr22	30067904	G	A	0.0436
6	<i>PBRM1</i>	stopgain SNV	NM_018313	exon18	R921X	chr3	52637555	G	A	0.1385
6	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon2	R93Q	chr3	178916891	G	A	0.1321
6	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon3	S403N	chr3	47164918	C	T	0.3846

6	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon18	S806L	chr4	1808979	C	T	0.0533
6	<i>INPP4B</i>	nonsynonymous SNV	NM_003866	exon16	Y361C	chr4	143114339	T	C	0.0517
6	<i>KDR</i>	nonsynonymous SNV	NM_002253	exon25	E1113G	chr4	55955607	T	C	0.0921
6	<i>KDR</i>	nonsynonymous SNV	NM_002253	exon13	S576Y	chr4	55971070	G	T	0.1273
6	<i>MAML1</i>	nonsynonymous SNV	NM_014757	exon2	P156S	chr5	179192477	C	T	0.1818
6	<i>PDGFRB</i>	nonsynonymous SNV	NM_002609	exon12	E563K	chr5	149505128	C	T	0.1905
6	<i>SKP2</i>	nonsynonymous SNV	NM_005983	exon3	C113Y	chr5	36163804	G	A	0.0352
6	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	D1921N	chr6	157528036	G	A	0.1118
6	<i>IRF4</i>	nonsynonymous SNV	NM_002460	exon7	G323V	chr6	401646	G	T	0.0837
6	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon16	L822V	chr6	117704512	G	C	0.0586
6	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon8	R298H	chr7	148523560	C	T	0.0435
6	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon17	K727E	chr7	83590824	T	C	0.0457
6	<i>CDKN2B</i>	nonsynonymous SNV	NM_004936	exon2	V117M	chr9	22006054	C	T	0.4922
6	<i>JAK2</i>	stopgain SNV	NM_004972	exon25	R1122X	chr9	5126756	C	T	0.1270
6	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon26	A1640T	chr9	139399225	C	T	0.3378
6	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon31	V1909I	chr9	139395213	C	T	0.3239
6	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon28	V1726M	chr9	139396932	C	T	0.3568
6	<i>NOTCH1</i>	stopgain SNV	NM_017617	exon8	R448X	chr9	139412303	G	A	0.0619
6	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon26	R1453W	chrX	53222475	G	A	0.0932
7	<i>ABL2</i>	nonsynonymous SNV	NM_001136000	exon13	R1013H	chr1	179077010	C	T	0.1590
7	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon2	G444S	chr1	27056334	G	A	0.1260
7	<i>ARID1A</i>	stopgain SNV	NM_006015	exon3	Q457X	chr1	27057661	C	T	0.1330
7	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon19	R622C	chr1	206666384	C	T	0.1289
7	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon5	Q161R	chr1	65339054	T	C	0.1812
7	<i>NTRK1</i>	nonsynonymous SNV	NM_001007792	exon2	P14L	chr1	156811904	C	T	0.1145
7	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	S1364G	chr1	16256825	A	G	0.4985
7	<i>TNFRSF14</i>	nonsynonymous SNV	NM_003820	exon6	T190M	chr1	2493129	C	T	0.0842

7	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon23	R4213H	chr11	92616260	G	A	0.4410
7	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon4	S224Y	chr11	106810721	G	T	0.2125
7	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	A503T	chr11	100998295	C	T	0.2135
7	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	G487S	chr11	100998343	C	T	0.1736
7	<i>CHD4</i>	stopgain SNV	NM_001273	exon36	R1731X	chr12	6687232	G	A	0.1358
7	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon23	R1261W	chr12	416769	G	A	0.1602
7	<i>LRP6</i>	nonsynonymous SNV	NM_002336	exon6	V410M	chr12	12334122	C	T	0.0909
7	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon2	A60T	chr12	111856127	G	A	0.1627
7	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon2	A160T	chr12	111856427	G	A	0.1030
7	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon3	A228T	chr12	115117753	C	T	0.0425
7	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon6	A212V	chr13	28624339	G	A	0.1097
7	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R343C	chr13	110437374	G	A	0.1229
7	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	I287V	chr13	110437542	T	C	0.1094
7	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	A354T	chr14	36986629	C	T	0.0618
7	<i>XRCC3</i>	nonsynonymous SNV	NM_005432	exon10	P282Q	chr14	104165331	G	T	0.0851
7	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	T1902M	chr16	3779343	G	A	0.1331
7	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon9	L961P	chr16	23634404	A	G	0.1179
7	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon4	A245V	chr16	23647133	G	A	0.1678
7	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon22	A822V	chr16	2124310	C	T	0.1181
7	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon20	G838C	chr17	16004742	C	A	0.1527
7	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon4	T125A	chr17	7579314	T	C	0.1008
7	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon10	G509E	chr18	25570133	C	T	0.1743
7	<i>SMAD4</i>	nonsynonymous SNV	NM_005359	exon7	Y276N	chr18	48584748	T	A	0.0473
7	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon14	P1148L	chr19	42796985	C	T	0.1412
7	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon27	A890T	chr19	10259612	C	T	0.0496
7	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon11	R319H	chr19	2207672	G	A	0.0588
7	<i>INSR</i>	stopgain SNV	NM_000208	exon14	R924X	chr19	7132241	G	A	0.1373

7	<i>MEF2B</i>	nonsynonymous SNV	NM_001145785	exon9	R359Q	chr19	19256637	C	T	0.0452
7	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon4	H133D	chr2	209113110	G	C	0.1295
7	<i>LRP1B</i>	splicing	NM_018557	exon64	c.10057+1G>A	chr2	141208136	C	T	0.1107
7	<i>MSH6</i>	splicing	NM_000179	exon9	c.4001+1G>A	chr2	48033791	G	A	0.1545
7	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A270V	chr20	57429129	C	T	0.1597
7	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon11	R926H	chr20	57485014	G	A	0.1273
7	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0442
7	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon12	H414Y	chr22	29091846	G	A	0.3810
7	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon12	R607W	chr22	30733811	G	A	0.0742
7	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon3	R151C	chr22	38374120	G	A	0.2045
7	<i>BAP1</i>	splicing	NM_004656	exon8	c.438-2A>G	chr3	52441334	T	C	0.0861
7	<i>MITF</i>	nonsynonymous SNV	NM_001184967	exon5	D176N	chr3	69990402	G	A	0.1773
7	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon4	T116A	chr3	51978439	A	G	0.1775
7	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon11	R398L	chr3	12633207	C	A	0.0725
7	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0348
7	<i>PIK3R1</i>	nonsynonymous SNV	NM_181523	exon13	S565N	chr5	67591101	G	A	0.1788
7	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon7	T287I	chr6	32944373	C	T	0.0912
7	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon45	C2232Y	chr6	160517510	G	A	0.1191
7	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon22	V1142I	chr6	117681526	C	T	0.4667
7	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon17	G843W	chr6	117700292	C	A	0.0463
7	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon15	G724D	chr6	117706979	C	T	0.1104
7	<i>CDK6</i>	nonsynonymous SNV	NM_001145306	exon4	G157R	chr7	92355008	C	T	0.1196
7	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon12	G638W	chr7	100410575	C	A	0.1700
7	<i>ETV1</i>	nonsynonymous SNV	NM_004956	exon14	G474C	chr7	13935505	C	A	0.1188
7	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon5	R168Q	chr7	81381558	C	T	0.0818
7	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	D239N	chr7	106508721	G	A	0.1511
7	<i>SEMA3A</i>	stopgain SNV	NM_006080	exon6	R197X	chr7	83675718	G	A	0.1643

7	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon8	V356I	chr8	38279324	C	T	0.1483
7	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon15	P802L	chr8	41800342	G	A	0.0951
7	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon1	R5H	chr8	9413463	G	A	0.1197
7	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0427
7	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	R319G	chr8	87423997	A	G	0.0493
7	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon4	R258C	chr9	133738315	C	T	0.1455
7	<i>NOTCH1</i>	splicing	NM_017617	exon9	c.1441+2T>C	chr9	139412202	A	G	0.0354
7	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon23	Q1285R	chr9	98209684	T	C	0.1766
7	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon7	R1379G	chrX	129162666	A	G	0.1545
7	<i>SMARCA1</i>	nonsynonymous SNV	NM_003069	exon1	E45K	chrX	128657215	C	T	0.4924
8	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon12	R577W	chr1	65316513	G	A	0.1579
8	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon4	A98V	chr12	50025707	C	T	0.1915
8	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon26	P1145S	chr13	28886189	G	A	0.3033
8	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0457
8	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon2	A76V	chr14	36988426	G	A	0.2016
8	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0363
8	<i>NTRK3</i>	stopgain SNV	NM_001012338	exon8	R222X	chr15	88679799	G	A	0.1837
8	<i>CDH1</i>	splicing	NM_004360	exon4	c.531+1G>C	chr16	68842471	G	C	0.2313
8	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon17	R678Q	chr17	37879658	G	A	0.1440
8	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0353
8	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0350
8	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	R1250W	chr17	29562668	C	T	0.0332
8	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0372
8	<i>CCNE1</i>	nonsynonymous SNV	NM_001238	exon11	Y319H	chr19	30313355	T	C	0.1583
8	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0452
8	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon20	R681H	chr19	2216398	G	A	0.1597
8	<i>ERCC2</i>	splicing	NM_000400	exon21	c.1902+2T>C	chr19	45856002	A	G	0.2075



8	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon11	T325M	chr19	45867145	G	A	0.1822
8	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon8	D316G	chr19	52719281	A	G	0.1673
8	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon20	E882D	chr19	11132430	A	C	0.1779
8	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	L189P	chr2	30142960	A	G	0.2924
8	<i>BARD1</i>	nonsynonymous SNV	NM_000465	exon4	R322C	chr2	215645634	G	A	0.1368
8	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon22	G1378E	chr3	142242854	C	T	0.1847
8	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon10	V703I	chr3	142274953	C	T	0.2424
8	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon3	R259H	chr3	96706499	G	A	0.1908
8	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon12	R834G	chr3	97311569	A	G	0.1977
8	<i>KLHL6</i>	nonsynonymous SNV	NM_130446	exon3	D182G	chr3	183226211	T	C	0.0997
8	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon12	R803Q	chr3	185191527	G	A	0.0449
8	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon10	Q546R	chr3	178936095	A	G	0.2295
8	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon16	T944M	chr4	66201671	G	A	0.1572
8	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon1	R12W	chr4	66535427	G	A	0.2303
8	<i>FGF10</i>	nonsynonymous SNV	NM_004465	exon2	V123F	chr5	44310591	C	A	0.1236
8	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0308
8	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon33	R1456Q	chr5	38946602	C	T	0.2077
8	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon51	M2719I	chr6	51701218	C	T	0.1759
8	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon2	L64I	chr7	140549961	G	T	0.2226
8	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon10	T456I	chr7	2974238	G	A	0.1515
8	<i>ELMO1</i>	nonsynonymous SNV	NM_001206480	exon18	N554D	chr7	36927219	T	C	0.2132
8	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon48	E2329G	chr7	98563349	A	G	0.1498
8	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon18	G1847E	chr8	41790198	C	T	0.4313
8	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon9	A181T	chr8	93017462	C	T	0.1464
8	<i>FANCC</i>	nonsynonymous SNV	NM_000136	exon2	V6A	chr9	98011557	A	G	0.1983
8	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	G2195D	chr9	139391607	C	T	0.1042
8	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon24	A1325T	chr9	139401020	C	T	0.5093

8	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon18	R603C	chr9	87563419	C	T	0.1282
9	<i>AKT3</i>	stopgain SNV	NM_181690	exon10	R367X	chr1	243716095	G	A	0.0313
9	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon10	T380A	chr1	206652431	A	G	0.1465
9	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	A2097V	chr11	92532469	C	T	0.1385
9	<i>FGF19</i>	nonsynonymous SNV	NM_005117	exon3	A208V	chr11	69514058	G	A	0.1487
9	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	N410S	chr11	100998573	T	C	0.0194
9	<i>HNF1A</i>	nonsynonymous SNV	NM_000545	exon5	A326T	chr12	121434085	G	A	0.1507
9	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon6	P350L	chr12	111885161	C	T	0.1723
9	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon11	I860M	chr13	32911072	C	G	0.4317
9	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon2	Y71C	chr14	36988441	T	C	0.1808
9	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	M121T	chr15	49775423	T	C	0.0144
9	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0275
9	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon17	A664T	chr15	88472565	C	T	0.1236
9	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon5	R417H	chr16	354308	C	T	0.1532
9	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon2	P61L	chr16	396844	G	A	0.1592
9	<i>CYLD</i>	nonsynonymous SNV	NM_015247	exon5	P228H	chr16	50785693	C	A	0.1205
9	<i>FANCA</i>	splicing	NM_000135	exon16	c.1360-1G>T	chr16	89851373	C	A	0.0144
9	<i>ALOX12B</i>	nonsynonymous SNV	NM_001139	exon2	R73Q	chr17	7989468	C	T	0.4451
9	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon36	R1794Q	chr17	15965425	C	T	0.1766
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0324
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon15	V567G	chr17	29548926	T	G	0.0291
9	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0200
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0153
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0239
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0275
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0226
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0435

9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	M1041I	chr17	29557869	G	T	0.0159
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0145
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0204
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	I1414M	chr17	29585430	C	G	0.0156
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0307
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0230
9	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0208
9	<i>RNF43</i>	nonsynonymous SNV	NM_017763	exon9	R552S	chr17	56435483	G	T	0.1268
9	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon6	R1402Q	chr18	42643077	G	A	0.1183
9	<i>AXL</i>	nonsynonymous SNV	NM_021913	exon1	M1I	chr19	41725300	G	A	0.1409
9	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon14	Q1041R	chr19	15353758	T	C	0.1786
9	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon17	R1358H	chr19	42798119	G	A	0.1600
9	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon33	K1212T	chr19	10250893	T	G	0.0123
9	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon22	A649T	chr19	10265043	C	T	0.1506
9	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon10	G373R	chr19	18273784	G	A	0.1393
9	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon4	R89H	chr19	11095992	G	A	0.1405
9	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon13	R753W	chr2	29462644	G	A	0.1068
9	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon6	R181C	chr2	25497908	G	A	0.1673
9	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon28	L1163P	chr2	212248779	A	G	0.2022
9	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon7	G219D	chr20	31017794	G	A	0.0243
9	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	N386T	chr20	54945269	T	G	0.0628
9	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon1	A426T	chr22	23524423	G	A	0.1785
9	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0336
9	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	E493K	chr22	29091142	C	T	0.0164
9	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0212
9	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0144
9	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon13	R551H	chr3	52437509	C	T	0.1354

9	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon13	R769C	chr3	89480468	C	T	0.1386
9	<i>EPHA6</i>	upstream	.	.	.	chr3	96533416	G	T	0.1737
9	<i>PARP3</i>	stopgain SNV	NM_005485	exon10	R472X	chr3	51981893	C	T	0.1370
9	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon17	R836Q	chr3	52643389	C	T	0.1526
9	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon7	T516M	chr4	66280142	G	A	0.4905
9	<i>FBXW7</i>	stopgain SNV	NM_033632	exon10	G517X	chr4	153247253	C	A	0.1468
9	<i>KDR</i>	nonsynonymous SNV	NM_002253	exon4	G152R	chr4	55981483	C	T	0.1436
9	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon26	A887V	chr4	20555526	C	T	0.1140
9	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon32	T1185A	chr4	20598270	A	G	0.0430
9	<i>APC</i>	stopgain SNV	NM_001127511	exon14	Q1451X	chr5	112175696	C	T	0.1496
9	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon9	Y367C	chr5	176520181	A	G	0.1485
9	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon10	C636R	chr5	56171078	T	C	0.0766
9	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0455
9	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon4	P76L	chr6	51947244	G	A	0.1334
9	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon18	A817V	chr7	2959066	G	A	0.1275
9	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon18	A817T	chr7	2959067	C	T	0.0336
9	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon7	T273A	chr7	81372717	T	C	0.1361
9	<i>MET</i>	nonsynonymous SNV	NM_000245	exon17	S1141L	chr7	116418911	C	T	0.0410
9	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0256
9	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0159
9	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0246
9	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon19	R685H	chr8	87460432	G	A	0.0257
9	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon4	K266E	chr9	133738339	A	G	0.2023
9	<i>ABL1</i>	splicing	NM_007313	exon5	c.964+2T>C	chr9	133747602	T	C	0.1529
9	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon8	D406G	chr9	136907072	T	C	0.1402
9	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	I2456V	chr9	139390825	T	C	0.4664
10	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon13	H459Y	chr1	46738474	C	T	0.0383

10	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R2327W	chr1	16259714	C	T	0.1330
10	<i>FGFR2</i>	nonsynonymous SNV	NM_022970	exon3	R61C	chr10	123325147	G	A	0.2403
10	<i>FANCF</i>	nonsynonymous SNV	NM_022725	exon1	D288G	chr11	22646494	T	C	0.1901
10	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon10	R525H	chr12	52387827	G	A	0.0720
10	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon15	A1528V	chr12	46246489	C	T	0.1379
10	<i>CHD4</i>	stopgain SNV	NM_001273	exon37	R1784X	chr12	6686962	G	A	0.4005
10	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon17	M766L	chr12	431713	T	A	0.4005
10	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon2	R76H	chr12	495079	C	T	0.1638
10	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon11	A445V	chr13	28610156	G	A	0.3864
10	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon11	A445S	chr13	28610157	C	A	0.3904
10	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	S311P	chr13	110437470	A	G	0.2806
10	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R72Q	chr13	110438186	C	T	0.2837
10	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	K1541R	chr13	25008657	T	C	0.0926
10	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon1	P41S	chr14	45605355	C	T	0.1577
10	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon1	V56L	chr14	45605400	G	T	0.0659
10	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	A225S	chr14	36987016	C	A	0.0647
10	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0344
10	<i>SMAD3</i>	nonsynonymous SNV	NM_001145102	exon8	V258I	chr15	67479780	G	A	0.2216
10	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon9	P748S	chr16	341242	G	A	0.2363
10	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	D659N	chr16	66436692	G	A	0.2340
10	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon27	W1502L	chr16	3786706	C	A	0.3052
10	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon17	R678Q	chr17	37879658	G	A	0.1747
10	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon33	R1628H	chr17	15968867	C	T	0.1772
10	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon32	R1576M	chr17	15971222	C	A	0.2013
10	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon37	Y1671H	chr17	29653013	T	C	0.1948
10	<i>CCNE1</i>	nonsynonymous SNV	NM_001238	exon9	W239L	chr19	30312913	G	T	0.2341
10	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0408

10	<i>INSR</i>	stopgain SNV	NM_000208	exon22	W1273X	chr19	7117397	C	T	0.2041
10	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon7	R374W	chr19	15300156	G	A	0.2354
10	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon5	G212E	chr19	11097144	G	A	0.1210
10	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon29	G1585S	chr2	29416200	C	T	0.1270
10	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon9	C362R	chr2	202149769	T	C	0.0877
10	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon2	K35E	chr2	212989608	T	C	0.0813
10	<i>PDK1</i>	nonsynonymous SNV	NM_002610	exon3	K127N	chr2	173426990	A	T	0.2291
10	<i>ARFRP1</i>	nonsynonymous SNV	NM_003224	exon5	A91V	chr20	62333562	G	A	0.2235
10	<i>ZNF217</i>	nonsynonymous SNV	NM_006526	exon3	R753H	chr20	52193045	C	T	0.0835
10	<i>ZNF217</i>	nonsynonymous SNV	NM_006526	exon3	A564T	chr20	52193613	C	T	0.2114
10	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	D332N	chr21	36164881	C	T	0.2003
10	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0354
10	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon20	G1210E	chr22	41556684	G	A	0.2671
10	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0307
10	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon2	V79A	chr22	38379556	A	G	0.2323
10	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon4	F99Y	chr3	142281948	A	T	0.0675
10	<i>EPHA6</i>	upstream	.	.	.	chr3	96533424	C	T	0.0969
10	<i>GSK3B</i>	nonsynonymous SNV	NM_002093	exon2	A73D	chr3	119720957	G	T	0.2203
10	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon3	P140H	chr3	185146788	C	A	0.2639
10	<i>MLH1</i>	nonsynonymous SNV	NM_000249	exon18	T696I	chr3	37090492	C	T	0.2625
10	<i>PBRM1</i>	stopgain SNV	NM_018313	exon12	Q402X	chr3	52668715	G	A	0.2594
10	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon12	T589I	chr3	77614188	C	T	0.0399
10	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon5	A394T	chr4	66356317	C	T	0.1595
10	<i>INPP4B</i>	nonsynonymous SNV	NM_003866	exon12	C206Y	chr4	143181716	C	T	0.3560
10	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon6	E279K	chr4	55133531	G	A	0.4397
10	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon27	G931D	chr4	20568951	G	A	0.1957
10	<i>CHD1</i>	nonsynonymous SNV	NM_001270	exon6	I282S	chr5	98236529	A	C	0.5026

10	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0975
10	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0433
10	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon6	A716V	chr6	157405905	C	T	0.1818
10	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	E2210K	chr6	157528903	G	A	0.0318
10	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon36	V1946I	chr6	51824740	C	T	0.0989
10	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon20	V1005M	chr6	117686328	C	T	0.1797
10	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	V101A	chr7	6043372	A	G	0.0319
10	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon21	A933T	chr7	98519550	G	A	0.4865
10	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon18	P1950H	chr8	41789889	G	T	0.0428
10	<i>MYC</i>	upstream	.	.	.	chr8	128747912	G	A	0.1249
10	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon14	D709N	chr8	9588523	G	A	0.3488
10	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	N201K	chr8	38205087	G	T	0.0214
10	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon14	G510C	chr8	87443899	G	T	0.0410
10	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon1	A6T	chr8	37553513	G	A	0.1501
10	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	V113A	chr8	37554757	T	C	0.1871
10	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon11	P997S	chr9	133760609	C	T	0.4819
10	<i>PAX5</i>	stopgain SNV	NM_016734	exon7	Q297X	chr9	36923373	G	A	0.2467
10	<i>PAX5</i>	nonsynonymous SNV	NM_016734	exon2	S55Y	chr9	37020681	G	T	0.2667
10	<i>SYK</i>	nonsynonymous SNV	NM_003177	exon2	A86V	chr9	93606437	C	T	0.0440
10	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon9	A419V	chrX	76939492	G	A	0.2744
10	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon11	R1480Q	chrX	39916462	C	T	0.2929
10	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon20	R1030W	chrX	53225130	G	A	0.1841
10	<i>TBX22</i>	nonsynonymous SNV	NM_001109878	exon6	R223Q	chrX	79282237	G	A	0.1552
11	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon20	D1082E	chr1	45288926	G	C	0.1858
11	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R871H	chr1	16255347	G	A	0.1979
11	<i>PTEN</i>	splicing	NM_000314	exon4	c.253+2T>C	chr10	89690848	T	C	0.2927
11	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon50	L2455P	chr11	108200997	T	C	0.2194

11	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon2	A13V	chr12	50024362	C	T	0.1704
11	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon20	R636L	chr12	50036040	G	T	0.2432
11	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon7	P517Q	chr12	115112190	G	T	0.0259
11	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon8	F443L	chr14	45624593	T	C	0.2148
11	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon8	V456A	chr14	45624633	T	C	0.1940
11	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	D778N	chr14	102548571	C	T	0.0378
11	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon37	H1631P	chr15	93558125	A	C	0.2210
11	<i>FANCI</i>	nonsynonymous SNV	NM_001113378	exon24	S828N	chr15	89838172	G	A	0.1761
11	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0392
11	<i>CYLD</i>	nonsynonymous SNV	NM_015247	exon5	M269T	chr16	50785816	T	C	0.2000
11	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0346
11	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	N793S	chr17	29554593	A	G	0.0505
11	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0429
11	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	P46L	chr18	60985763	G	A	0.2480
11	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0276
11	<i>MAP2K2</i>	nonsynonymous SNV	NM_030662	exon3	F133L	chr19	4110560	A	G	0.2234
11	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon10	R528Q	chr19	11105667	G	A	0.2181
11	<i>PDK1</i>	nonsynonymous SNV	NM_002610	exon7	A257E	chr2	173433469	C	A	0.0258
11	<i>ZNF217</i>	nonsynonymous SNV	NM_006526	exon3	A549T	chr20	52193658	C	T	0.4610
11	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	S286F	chr22	39387470	C	T	0.4432
11	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0260
11	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon14	H517Y	chr22	29694854	C	T	0.2159
11	<i>FBXW7</i>	nonsynonymous SNV	NM_033632	exon12	L648P	chr4	153244214	A	G	0.1866
11	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0554
11	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0366
11	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	Q205H	chr5	170827875	A	C	0.0385
11	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	I1738V	chr6	157527487	A	G	0.2305



11	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon20	P751T	chr7	148504743	G	T	0.2628
11	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0417
11	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon59	E2945K	chr7	98580914	G	A	0.3378
11	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon15	P561Q	chr8	92972522	G	T	0.1361
11	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	P562L	chr8	38184271	G	A	0.0232
11	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	S558N	chr8	38184283	C	T	0.0211
11	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon1	G22S	chr8	37553561	G	A	0.1828
11	<i>FANCG</i>	nonsynonymous SNV	NM_004629	exon3	Q86H	chr9	35078651	C	A	0.1972
12	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon3	Q553K	chr1	27057949	C	A	0.4685
12	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon16	I805N	chr1	45292939	A	T	0.0442
12	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon3	Q113R	chr1	45297941	T	C	0.0633
12	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R672Q	chr1	16254750	G	A	0.1472
12	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	H2177R	chr1	16259265	A	G	0.5132
12	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon21	Y3946H	chr11	92600084	T	C	0.1566
12	<i>MEN1</i>	nonsynonymous SNV	NM_130804	exon4	E209K	chr11	64575407	C	T	0.0527
12	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon12	S520G	chr12	46240698	A	G	0.0357
12	<i>CCND2</i>	nonsynonymous SNV	NM_001759	exon4	M196T	chr12	4398023	T	C	0.4726
12	<i>HNF1A</i>	nonsynonymous SNV	NM_000545	exon3	R203C	chr12	121431403	C	T	0.0573
12	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon11	R421Q	chr12	112924316	G	A	0.0677
12	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon9	R382C	chr13	29002021	G	A	0.2240
12	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	T1156M	chr13	110434934	G	A	0.0290
12	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A274V	chr13	110437580	G	A	0.0677
12	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon2	A154T	chr14	36988193	C	T	0.1197
12	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon10	A716V	chr15	99460051	C	T	0.0354
12	<i>SMAD3</i>	nonsynonymous SNV	NM_001145102	exon7	V226I	chr15	67477184	G	A	0.1290
12	<i>SMAD3</i>	nonsynonymous SNV	NM_001145102	exon7	A207T	chr15	67477127	G	A	0.0373
12	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	P636S	chr16	66436623	C	T	0.0130

12	<i>CREBBP</i>	stopgain SNV	NM_004380	exon31	Q2140X	chr16	3778630	G	A	0.0415
12	<i>NUP93</i>	nonsynonymous SNV	NM_014669	exon3	G65R	chr16	56792463	G	A	0.0634
12	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0248
12	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	L993V	chr17	29556979	T	G	0.1029
12	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0305
12	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon14	R749Q	chr18	25563011	C	T	0.0409
12	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon4	R498W	chr18	42530797	C	T	0.0544
12	<i>SMAD2</i>	nonsynonymous SNV	NM_001003652	exon8	G301D	chr18	45374941	C	T	0.3198
12	<i>AXL</i>	nonsynonymous SNV	NM_021913	exon17	R671Q	chr19	41759589	G	A	0.1335
12	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon10	R632H	chr19	15366260	C	T	0.0389
12	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon15	G1225W	chr19	42797311	G	T	0.0722
12	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon7	R166H	chr19	45868193	C	T	0.1180
12	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon17	T1058M	chr19	7125379	G	A	0.1412
12	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon4	R144H	chr19	52714673	G	A	0.0657
12	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon28	G1280D	chr19	11144507	G	A	0.0741
12	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon21	G1137R	chr2	29445424	C	T	0.1190
12	<i>BARD1</i>	nonsynonymous SNV	NM_000465	exon9	T605A	chr2	215609881	T	C	0.0744
12	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon26	P1427S	chr2	141625723	G	A	0.0736
12	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon87	A4430T	chr2	141004691	C	T	0.0260
12	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon18	E949G	chr2	141739770	T	C	0.0282
12	<i>ARFRP1</i>	nonsynonymous SNV	NM_003224	exon7	I147V	chr20	62332033	T	C	0.0324
12	<i>ASXL1</i>	stopgain SNV	NM_015338	exon11	R402X	chr20	31021205	C	T	0.0853
12	<i>AURKA</i>	splicing	NM_003600	exon8	c.854+2T>C	chr20	54948462	A	G	0.0567
12	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	D319N	chr20	57429275	G	A	0.0584
12	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	S455A	chr20	57429683	T	G	0.0868
12	<i>NCOA3</i>	stopgain SNV	NM_006534	exon19	R1188X	chr20	46277764	C	T	0.0769
12	<i>NCOA3</i>	nonsynonymous SNV	NM_006534	exon20	S1287N	chr20	46279946	G	A	0.0234

12	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon17	P608S	chr20	39745032	C	T	0.0435
12	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	R662W	chr20	39750369	C	T	0.1019
12	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	T354I	chr21	36164814	G	A	0.0125
12	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon1	R44H	chr22	23523278	G	A	0.1336
12	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon6	V369I	chr3	128200700	C	T	0.0528
12	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon6	T316M	chr3	185165672	C	T	0.1337
12	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon28	T1477I	chr3	78663803	G	A	0.1183
12	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon24	R1155W	chr3	78683103	G	A	0.2226
12	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon31	D1079N	chr4	20597372	G	A	0.0626
12	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon3	S357N	chr4	106156169	G	A	0.0231
12	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon3	S1015R	chr4	106158144	C	A	0.0525
12	<i>APC</i>	stopgain SNV	NM_001127511	exon14	K2230X	chr5	112178033	A	T	0.0407
12	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon13	E625G	chr5	180048688	T	C	0.0192
12	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0284
12	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0367
12	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0319
12	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	R101K	chr5	170818753	G	A	0.0317
12	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	G256D	chr6	157099830	G	A	0.0638
12	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon18	V1632I	chr6	157522622	G	A	0.0570
12	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon32	V1287G	chr6	51890748	A	C	0.6480
12	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon16	A918V	chr7	100402869	G	A	0.1921
12	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon13	S750N	chr7	100405072	C	T	0.0189
12	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon15	R561C	chr7	148511221	G	A	0.2003
12	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon16	T620S	chr7	81334969	T	A	0.5807
12	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	G306R	chr7	27147950	C	T	0.0933
12	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	R360C	chr7	50467843	C	T	0.0450
12	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	E405G	chr7	50467979	A	G	0.0657

12	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon3	S356N	chr7	41729462	C	T	0.0537
12	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon2	F9Y	chr7	41739947	A	T	0.0545
12	<i>MET</i>	nonsynonymous SNV	NM_000245	exon20	V1271M	chr7	116435721	G	A	0.0370
12	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon8	T886M	chr7	106523505	C	T	0.0478
12	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0147
12	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0209
12	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0192
12	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon39	R1860C	chr7	98550925	C	T	0.2845
12	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon8	V356I	chr8	38279324	C	T	0.0636
12	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon1	N40S	chr9	133589825	A	G	0.4227
12	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon6	R313H	chr9	136913353	C	T	0.0532
12	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon25	G1353S	chr9	139400291	C	T	0.0565
12	<i>NOTCH1</i>	stopgain SNV	NM_017617	exon19	C1025X	chr9	139403418	G	T	0.0290
12	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon11	A624T	chr9	139409968	C	T	0.0672
13	<i>CDC73</i>	nonsynonymous SNV	NM_024529	exon16	R484H	chr1	193218893	G	A	0.0920
13	<i>JUN</i>	nonsynonymous SNV	NM_002228	exon1	L14I	chr1	59248703	G	T	0.1882
13	<i>FGF3</i>	nonsynonymous SNV	NM_005247	exon1	A19V	chr11	69633646	G	A	0.2294
13	<i>IGF1</i>	nonsynonymous SNV	NM_001111283	exon3	A110T	chr12	102813361	C	T	0.2831
13	<i>LRP6</i>	nonsynonymous SNV	NM_002336	exon6	R341H	chr12	12334328	C	T	0.1361
13	<i>CDK8</i>	stopgain SNV	NM_001260	exon12	Q397X	chr13	26975681	C	T	0.1357
13	<i>IRS2</i>	stopgain SNV	NM_003749	exon1	R1288X	chr13	110434539	G	A	0.2023
13	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	G1004D	chr13	110435390	C	T	0.0216
13	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	G372D	chr14	36986574	C	T	0.1673
13	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon38	R1690Q	chr15	93563404	G	A	0.2159
13	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon5	R236W	chr16	66423350	C	T	0.1525
13	<i>PHLPP2</i>	nonsynonymous SNV	NM_015020	exon1	L87V	chr16	71748440	A	C	0.5327
13	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon20	S645N	chr16	2226321	G	A	0.1093

13	<i>APCDD1</i>	nonsynonymous SNV	NM_153000	exon3	A257V	chr18	10472054	C	T	0.1512
13	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon5	R213Q	chr19	42791752	G	A	0.2070
13	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon7	A354T	chr19	15300216	C	T	0.1045
13	<i>PIK3R2</i>	stopgain SNV	NM_005027	exon13	R574X	chr19	18278100	C	T	0.1222
13	<i>TMPRSS2</i>	nonsynonymous SNV	NM_001135099	exon1	P2S	chr21	42879928	G	A	0.0478
13	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0367
13	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon3	A111T	chr22	30742363	C	T	0.0718
13	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon23	P701L	chr3	10106493	C	T	0.5591
13	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon4	A203T	chr3	128204834	C	T	0.1815
13	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon30	R1527Q	chr3	52582248	C	T	0.2438
13	<i>TGFBR2</i>	nonsynonymous SNV	NM_001024847	exon5	A242T	chr3	30713324	G	A	0.1875
13	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon3	S78N	chr4	55127445	G	A	0.1227
13	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon7	R340W	chr4	55133805	C	T	0.0913
13	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon21	D718E	chr4	20544127	C	A	0.1984
13	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon11	P1651L	chr4	106196619	C	T	0.1577
13	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon11	R477Q	chr5	180051053	C	T	0.1598
13	<i>ITK</i>	nonsynonymous SNV	NM_005546	exon1	K18R	chr5	156608041	A	G	0.1328
13	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon1	L78P	chr5	56111633	T	C	0.4838
13	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon1	T103I	chr5	56111708	C	T	0.4834
13	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0526
13	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon7	V282M	chr6	160450649	G	A	0.1928
13	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	R302W	chr6	106552939	C	T	0.1639
13	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon34	A1550V	chr7	98546190	C	T	0.1423
13	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon7	T53M	chr8	93027036	G	A	0.5652
13	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon1	R31M	chr9	80646060	C	A	0.1151
13	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	R2179W	chr9	139391656	G	A	0.2266
13	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon18	R913C	chr9	8449746	G	A	0.1477

13	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon23	P1138L	chr9	8375954	G	A	0.1183
14	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon8	D297Y	chr12	56482341	G	T	0.1490
14	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R301W	chr13	110437500	G	A	0.2696
14	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon2	V88M	chr14	36988391	C	T	0.0303
14	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon6	D424N	chr15	99451936	G	A	0.1055
14	<i>ALOX12B</i>	nonsynonymous SNV	NM_001139	exon4	R168G	chr17	7984227	T	C	0.5700
14	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0260
14	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon5	H179L	chr17	7578394	T	A	0.1778
14	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon9	A410V	chr19	1226573	C	T	0.5604
14	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon23	R1181L	chr2	29443675	C	A	0.4948
14	<i>APC</i>	stopgain SNV	NM_001127511	exon14	E1559X	chr5	112176020	G	T	0.0890
14	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon1	L78P	chr5	56111633	T	C	0.4405
14	<i>CDK6</i>	nonsynonymous SNV	NM_001145306	exon2	T49N	chr7	92462492	G	T	0.0214
14	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon2	D106E	chr7	41739655	G	C	0.1159
14	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0253
14	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon59	Q2954R	chr7	98580942	A	G	0.4278
14	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	R2159C	chr9	139391716	G	A	0.4710
15	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon9	T381S	chr1	45295148	T	A	0.0724
15	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon8	R1546Q	chr11	92525958	G	A	0.0566
15	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon18	D3525Y	chr11	92577106	G	T	0.0658
15	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	E459D	chr11	100998425	C	G	0.4820
15	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon8	R285W	chr12	46230604	C	T	0.1373
15	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon19	R975C	chr12	6701584	G	A	0.0534
15	<i>LRP6</i>	nonsynonymous SNV	NM_002336	exon21	S1455N	chr12	12278315	C	T	0.0596
15	<i>CDK8</i>	nonsynonymous SNV	NM_001260	exon4	R150S	chr13	26928011	A	C	0.1480
15	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon17	Q490H	chr13	113909024	G	T	0.1905
15	<i>RB1</i>	stopgain SNV	NM_000321	exon19	Q631X	chr13	49030416	C	T	0.1994

15	<i>FANCI</i>	nonsynonymous SNV	NM_001113378	exon26	D946V	chr15	89843564	A	T	0.4125
15	<i>PRSS8</i>	nonsynonymous SNV	NM_002773	exon4	A160T	chr16	31144063	C	T	0.0536
15	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	S1454L	chr17	41231413	G	A	0.0335
15	<i>ETV4</i>	nonsynonymous SNV	NM_001079675	exon2	Y16H	chr17	41622940	A	G	0.0559
15	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon29	L1404V	chr2	29416743	G	C	0.4720
15	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon87	G4423C	chr2	141004712	C	A	0.1696
15	<i>LRP1B</i>	splicing	NM_018557	exon66	c.10294+1G>A	chr2	141201898	C	T	0.0972
15	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	V452M	chr21	36164521	C	T	0.0288
15	<i>TMPRSS2</i>	stopgain SNV	NM_001135099	exon13	R523X	chr21	42839672	G	A	0.2682
15	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	E493K	chr22	29091142	C	T	0.0459
15	<i>EP300</i>	stopgain SNV	NM_001429	exon31	R2263X	chr22	41574502	C	T	0.0540
15	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon13	R661Q	chr3	41278106	G	A	0.1916
15	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon15	S887G	chr3	89499489	A	G	0.2612
15	<i>EPHA6</i>	upstream	.	.	.	chr3	96533416	G	T	0.0458
15	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon2	R93W	chr3	178916890	C	T	0.0360
15	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon5	M183V	chr3	12650299	T	C	0.1785
15	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon22	R1011H	chr3	78688899	C	T	0.1698
15	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon18	W816R	chr3	78706416	A	G	0.1429
15	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon3	R1229S	chr3	47162439	T	A	0.0446
15	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon11	V1862A	chr4	106197252	T	C	0.1550
15	<i>CHD1</i>	nonsynonymous SNV	NM_001270	exon34	D1547E	chr5	98194030	A	T	0.4647
15	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon10	T446M	chr5	180052953	G	A	0.1131
15	<i>MAML1</i>	nonsynonymous SNV	NM_014757	exon2	Y455C	chr5	179193375	A	G	0.1600
15	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0450
15	<i>TERT</i>	nonsynonymous SNV	NM_198253	exon1	T26M	chr5	1295028	G	A	0.1206
15	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon12	D642G	chr6	32183099	T	C	0.2329
15	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon5	S117N	chr6	51944738	C	T	0.0441

15	<i>WISP3</i>	nonsynonymous SNV	NM_003880	exon3	R44H	chr6	112382276	G	A	0.1480
15	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon21	A864V	chr7	55259533	C	T	0.0990
15	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon3	A252T	chr7	41729775	C	T	0.1386
15	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0400
15	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon16	R617Q	chr7	83592531	C	T	0.0380
15	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon18	R1360M	chr8	41791659	C	A	0.1200
15	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon8	R424Q	chr8	41834618	C	T	0.0574
15	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon2	P22S	chr9	136918536	G	A	0.0617
15	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon2	E70Q	chr9	80537190	C	G	0.0346
15	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon2	G51C	chr9	80537247	C	A	0.0562
15	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon8	R328W	chrX	53244011	G	A	0.0965
16	<i>ARID1A</i>	stopgain SNV	NM_006015	exon16	Y1324X	chr1	27100176	C	A	0.1840
16	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0205
16	<i>FANCF</i>	nonsynonymous SNV	NM_022725	exon1	F248V	chr11	22646615	A	C	0.0589
16	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon15	G1239S	chr12	46245621	G	A	0.2535
16	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	L30S	chr12	112884154	T	C	0.0279
16	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0154
16	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R343Q	chr12	112915755	G	A	0.0355
16	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon27	T3310A	chr13	32972578	A	G	0.0957
16	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon16	L478S	chr13	113907490	T	C	0.1519
16	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	S1288N	chr13	25009416	C	T	0.0176
16	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon28	A1129T	chr13	25017850	C	T	0.0198
16	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon14	S565P	chr13	25051935	A	G	0.0350
16	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon19	R621S	chr13	49030386	C	A	0.3798
16	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon16	M484V	chr13	48954329	A	G	0.1319
16	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0230
16	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0245



16	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon4	T174I	chr16	66422248	C	T	0.0416
16	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0254
16	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon15	M611I	chr17	37873668	G	A	0.1304
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0191
16	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0660
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0287
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0312
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	K505E	chr17	29541589	A	G	0.0326
16	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0216
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0176
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0276
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0462
16	<i>NF1</i>	stopgain SNV	NM_001042492	exon19	E767X	chr17	29554283	G	T	0.0147
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0233
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	D888G	chr17	29556296	A	G	0.0154
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0271
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0208
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0272
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	P931L	chr17	29556425	C	T	0.0235
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T940A	chr17	29556451	A	G	0.0210
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0248
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0256
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	M1271I	chr17	29562733	G	T	0.0144
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0342
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0174
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	V1308E	chr17	29562988	T	A	0.0178
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	I1414M	chr17	29585430	C	G	0.0244

16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon33	N1471S	chr17	29586129	A	G	0.0199
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1482T	chr17	29587401	T	C	0.4693
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	W1512R	chr17	29587490	T	C	0.0150
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0299
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0226
16	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0248
16	<i>PRKAR1A</i>	splicing	NM_001276289	exon11	c.892-1G>T	chr17	66526060	G	T	0.0534
16	<i>STAT3</i>	nonsynonymous SNV	NM_003150	exon23	T720A	chr17	40468903	T	C	0.1407
16	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon8	G293W	chr17	7577061	C	A	0.0436
16	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon2	P37A	chr19	17955118	G	C	0.0500
16	<i>BCL2L1</i>	nonsynonymous SNV	NM_001191	exon2	G70V	chr20	30309813	C	A	0.4609
16	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0372
16	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0367
16	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0290
16	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0270
16	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0267
16	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0210
16	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon7	S621R	chr3	97167543	T	A	0.1901
16	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon10	R479Q	chr4	55139775	G	A	0.4225
16	<i>DOCK2</i>	splicing	NM_004946	exon5	c.321+1G>A	chr5	169098179	G	A	0.1705
16	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0230
16	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0686
16	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0370
16	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon36	R1609C	chr5	38944636	G	A	0.1789
16	<i>ARID1B</i>	stopgain SNV	NM_020732	exon9	Q905X	chr6	157469919	C	T	0.1864
16	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon3	L195V	chr6	94120468	A	C	0.1844
16	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon1	D22N	chr7	140624440	C	T	0.3977

16	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon10	D382N	chr7	148515065	C	T	0.0699
16	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0237
16	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon2	A115T	chr7	128843236	G	A	0.1614
16	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon4	P62L	chr8	87393069	C	T	0.0198
16	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	Q237R	chr9	80409404	T	C	0.0245
16	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon3	V121G	chr9	80430646	A	C	0.0231
16	<i>NOTCH1</i>	stopgain SNV	NM_017617	exon34	Q2487X	chr9	139390732	G	A	0.2031
17	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon17	M766L	chr12	431713	T	A	0.5680
17	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon3	R313H	chr15	99434851	G	A	0.1681
17	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon2	L150R	chr16	396577	A	C	0.0531
17	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0336
17	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon8	E349K	chr19	1223108	G	A	0.4896
17	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon27	K1497R	chr2	141625248	T	C	0.0409
17	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon14	R960Q	chr3	142269071	C	T	0.0271
17	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0670
17	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0217
17	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon17	D686N	chr7	82997174	C	T	0.3780
18	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon20	S1992P	chr1	27106363	T	C	0.2423
18	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon20	M1038V	chr1	11276210	T	C	0.0922
18	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon4	R164W	chr1	11317004	G	A	0.1785
18	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	D1933G	chr11	92531977	A	G	0.1989
18	<i>CDK4</i>	nonsynonymous SNV	NM_000075	exon7	R246H	chr12	58143047	C	T	0.1724
18	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon8	R301Q	chr12	463369	C	T	0.2201
18	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon11	A1825T	chr13	32913965	G	A	0.2217
18	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	G659S	chr13	110436426	C	T	0.4704
18	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A442T	chr13	110437077	C	T	0.0818
18	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon8	E268G	chr13	48937035	A	G	0.2163

18	<i>BCL2A1</i>	nonsynonymous SNV	NM_001114735	exon1	E49G	chr15	80263316	T	C	0.0691
18	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon33	T1456A	chr17	29586083	A	G	0.1742
18	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	P71L	chr18	60985688	G	A	0.4683
18	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon1	G81D	chr18	59158028	G	A	0.1685
18	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon18	R659W	chr18	39618751	C	T	0.1059
18	<i>AXL</i>	nonsynonymous SNV	NM_021913	exon5	A210T	chr19	41736913	G	A	0.0814
18	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon30	R1857W	chr19	15276696	G	A	0.1741
18	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon35	D1629N	chr19	11170837	G	A	0.0114
18	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon3	E314G	chr2	29917727	T	C	0.4611
18	<i>CASP8</i>	stoploss SNV	NM_001228	exon10	X497R	chr2	202151315	T	C	0.1573
18	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon28	S1286P	chr2	212248411	A	G	0.0640
18	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	S286F	chr22	39387470	C	T	0.4179
18	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0381
18	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon6	Q501R	chr22	41527611	A	G	0.2028
18	<i>SMARCB1</i>	nonsynonymous SNV	NM_003073	exon6	T250M	chr22	24159077	C	T	0.2096
18	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon9	R449H	chr3	41275180	G	A	0.2733
18	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon11	G575R	chr3	41277254	G	A	0.2466
18	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon34	Q1150H	chr3	10128932	G	T	0.1942
18	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	Y91C	chr3	138665293	T	C	0.0438
18	<i>GSK3B</i>	splicing	NM_002093	exon6	c.608+2T>C	chr3	119634889	A	G	0.0829
18	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon9	A392V	chr3	51980258	C	T	0.1749
18	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon22	S1010T	chr3	78688902	C	G	0.1885
18	<i>SETD2</i>	splicing	NM_014159	exon19	c.7350+2T>C	chr3	47079154	A	G	0.2226
18	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon1	R11C	chr4	66535430	G	A	0.2263
18	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon13	F593C	chr4	1807603	T	G	0.5006
18	<i>CSF1R</i>	stopgain SNV	NM_005211	exon9	Q433X	chr5	149449767	G	A	0.1839
18	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon14	A706T	chr5	180048157	C	T	0.1613

18	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0842
18	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon17	S1552R	chr5	176696760	A	C	0.1787
18	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon15	N414I	chr5	38966801	T	A	0.2209
18	<i>TERT</i>	upstream	.	.	.	chr5	1295860	G	T	0.4584
18	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon56	R2891H	chr6	51619707	C	T	0.2057
18	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon9	R389H	chr7	140487359	C	T	0.1685
18	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	R266L	chr7	27148069	C	A	0.4429
18	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	A365S	chr7	50467858	G	T	0.2010
18	<i>TRRAP</i>	stopgain SNV	NM_001244580	exon71	R3711X	chr7	98608994	C	T	0.0252
18	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon15	H521R	chr8	92972642	T	C	0.1751
18	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon19	T1152M	chr8	38146051	G	A	0.2209
18	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon22	R819Q	chr8	87470211	G	A	0.0252
18	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	S533F	chr8	37556017	C	T	0.0221
18	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon6	R313C	chr9	136913354	G	A	0.1604
18	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	R2120H	chr9	139391832	C	T	0.1850
18	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon11	G571R	chr9	8504363	C	G	0.5111
18	<i>CUL4B</i>	nonsynonymous SNV	NM_003588	exon10	R420H	chrX	119677633	C	T	0.1681
18	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon10	G452S	chrX	53240726	C	T	0.2019
19	<i>AKT3</i>	nonsynonymous SNV	NM_181690	exon6	S197R	chr1	243778434	G	T	0.0649
19	<i>CHUK</i>	splicing	NM_001278	exon3	c.200+1G>A	chr10	101985679	C	T	0.0529
19	<i>TNKS2</i>	nonsynonymous SNV	NM_025235	exon25	V1036L	chr10	93619230	G	T	0.0709
19	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon11	R400K	chr11	94197305	C	T	0.0608
19	<i>TSHR</i>	nonsynonymous SNV	NM_000369	exon10	M637V	chr14	81610311	A	G	0.6477
19	<i>DNMT1</i>	splicing	NM_001130823	exon9	c.649-2A>T	chr19	10284583	T	A	0.1000
19	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon4	R134W	chr19	52714642	C	T	0.0268
19	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon6	I226M	chr2	209108171	G	C	0.0656
19	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon3	D38N	chr2	209116164	C	T	0.0667

19	<i>NCOA3</i>	nonsynonymous SNV	NM_006534	exon12	A705S	chr20	46265243	G	T	0.0407
19	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon31	N1776S	chr22	41573042	A	G	0.0749
19	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon16	M983I	chr3	134977956	G	A	0.4800
19	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon9	R383C	chr5	138223182	C	T	0.0763
19	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon1	S4L	chr5	170814963	C	T	0.0881
19	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0517
19	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon30	Y1894F	chr6	32163545	T	A	0.1121
19	<i>MYC</i>	nonsynonymous SNV	NM_002467	exon2	I144F	chr8	128750893	A	T	0.0928
19	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	E534Q	chr8	38184356	C	G	0.5455
19	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon17	D909N	chr9	139405120	C	T	0.4317
20	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	H103Y	chr1	22413180	C	T	0.0538
20	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	F3325L	chr1	16262708	T	C	0.1570
20	<i>SUFU</i>	nonsynonymous SNV	NM_016169	exon10	A416T	chr10	104377135	G	A	0.1347
20	<i>IGF1</i>	nonsynonymous SNV	NM_001111283	exon3	S82N	chr12	102813444	C	T	0.5496
20	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon8	R551W	chr12	111886029	C	T	0.1141
20	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	E793D	chr13	110436022	C	A	0.1440
20	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon19	S648L	chr13	49030468	C	T	0.0457
20	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon6	A588T	chr16	347744	C	T	0.1004
20	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon5	R84C	chr16	2220633	C	T	0.1247
20	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon5	E111A	chr16	2220715	A	C	0.0636
20	<i>ETV4</i>	nonsynonymous SNV	NM_001079675	exon12	Y402F	chr17	41606528	T	A	0.0685
20	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0519
20	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	S1567X	chr17	29588851	C	A	0.0617
20	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon9	R432W	chr17	38512383	C	T	0.0829
20	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0458
20	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon4	M122L	chr19	10291107	T	A	0.1418
20	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon18	L564P	chr19	2213879	T	C	0.0782

20	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon24	T977I	chr19	2222098	C	T	0.1054
20	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon10	G373R	chr19	18273784	G	A	0.0891
20	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon31	R1443H	chr19	11152140	G	A	0.1553
20	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon19	R1081Q	chr22	23653943	G	A	0.0463
20	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon21	L1177F	chr22	23656226	C	T	0.1261
20	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0569
20	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	P217L	chr22	29682980	C	T	0.0769
20	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	P156L	chr3	138665098	G	A	0.0563
20	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon12	T541I	chr5	138260274	C	T	0.0394
20	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon17	L785H	chr5	138268322	T	A	0.1592
20	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon17	G811V	chr5	138268400	G	T	0.1500
20	<i>PDGFRB</i>	nonsynonymous SNV	NM_002609	exon17	V804M	chr5	149500820	C	T	0.0718
20	<i>SKP2</i>	nonsynonymous SNV	NM_005983	exon10	G374C	chr5	36181978	G	T	0.0478
20	<i>TERT</i>	upstream	.	.	.	chr5	1295430	C	A	0.1963
20	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon12	E1062D	chr6	157502153	G	C	0.1657
20	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon11	R712G	chr6	32947897	C	G	0.1675
20	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon18	A718V	chr7	140434545	G	A	0.1143
20	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon7	P321S	chr7	140500181	G	A	0.0425
20	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon2	V74A	chr7	41739752	A	G	0.0949
20	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon39	A1892T	chr7	98551021	G	A	0.1066
20	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon54	H2712R	chr7	98574302	A	G	0.0956
20	<i>WHSC1L1</i>	stopgain SNV	NM_023034	exon14	Y826X	chr8	38162238	A	T	0.1021
20	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	A182V	chr8	87414253	C	T	0.0441
20	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon23	R845L	chr8	87473487	G	T	0.0508
20	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon9	E493K	chr9	136905322	C	T	0.0643
20	<i>FANCG</i>	nonsynonymous SNV	NM_004629	exon14	P590A	chr9	35074206	G	C	0.3873
20	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	V2476M	chr9	139390765	C	T	0.0872

20	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon18	R603C	chr9	87563419	C	T	0.1158
20	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon23	G1329W	chr9	98209553	C	A	0.0499
21	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon4	C74F	chr1	65344816	C	A	0.0591
21	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon4	G145R	chr12	112891099	G	A	0.0714
21	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon4	G145E	chr12	112891100	G	A	0.0651
21	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon4	R152C	chr12	112891120	C	T	0.0603
21	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon7	S241Y	chr17	7577559	G	T	0.1059
21	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	P354L	chr22	29688492	C	T	0.0556
21	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0648
21	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon12	A391T	chrX	44918688	G	A	0.1279
21	<i>STAG2</i>	nonsynonymous SNV	NM_001042749	exon17	M525I	chrX	123195661	G	A	0.0723
22	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon16	R714Q	chr1	162746018	G	A	0.0490
22	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon13	S706L	chr11	108124759	C	T	0.4516
22	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon1	S24T	chr12	52345597	T	A	0.2133
22	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon18	T527M	chr13	113909288	C	T	0.1294
22	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon11	S471Y	chr13	28610078	G	T	0.1506
22	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon34	R1470H	chr16	2134632	G	A	0.1826
22	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	S1318R	chr17	29563019	C	A	0.0388
22	<i>RNF43</i>	stopgain SNV	NM_017763	exon9	R371X	chr17	56436026	G	A	0.1753
22	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon4	W532R	chr18	42530899	T	C	0.1461
22	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon27	R1243W	chr19	11144146	C	T	0.1358
22	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon3	R68Q	chr2	202131412	G	A	0.1716
22	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon16	E876V	chr2	141751581	T	A	0.1597
22	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon8	A349T	chr2	141819811	C	T	0.1429
22	<i>PAK7</i>	nonsynonymous SNV	NM_020341	exon10	D638V	chr20	9523324	T	A	0.1092
22	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon13	G554A	chr3	52437500	C	G	0.6626
22	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon11	R565C	chr3	41277224	C	T	0.1674



22	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon9	A368T	chr4	1806077	G	A	0.1835
22	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon16	Q522E	chr4	20530673	C	G	0.2371
22	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon30	H1312Y	chr5	180030350	G	A	0.1643
22	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0645
22	<i>PIK3R1</i>	nonsynonymous SNV	NM_181523	exon16	Y698C	chr5	67593347	A	G	0.1724
22	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon4	N156I	chr6	32943294	A	T	0.2092
22	<i>ELMO1</i>	nonsynonymous SNV	NM_001206480	exon14	N383I	chr7	37172778	T	A	0.1595
22	<i>EPHB6</i>	nonsynonymous SNV	NM_004445	exon9	P455A	chr7	142563975	C	G	0.4419
22	<i>HGF</i>	splicing	NM_000601	exon17	c.1864+1G>A	chr7	81334962	C	T	0.1838
22	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon7	D252G	chr7	50459466	A	G	0.1678
22	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	V310M	chr7	50467693	G	A	0.1697
22	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	R273C	chr7	106508823	C	T	0.1437
22	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon11	A390V	chr7	6027227	G	A	0.1250
22	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon2	G130V	chr9	21971012	C	A	0.1869
22	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	R2327W	chr9	139391212	G	A	0.1449
22	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon9	V437I	chr9	98240375	C	T	0.1358
22	<i>PTCH1</i>	splicing	NM_000264	exon10	c.1216-1G>T	chr9	98240469	C	A	0.0978
23	<i>RET</i>	nonsynonymous SNV	NM_020975	exon2	R77C	chr10	43596062	C	T	0.1333
23	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon14	P634S	chr12	46243547	C	T	0.2286
23	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon4	V29I	chr13	113882306	G	A	0.1389
23	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon5	V244M	chr16	66423374	G	A	0.1429
23	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon5	P152L	chr17	7578475	G	A	0.1979
23	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon28	S911R	chr19	10257188	G	C	0.2921
23	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon27	L1318M	chr2	29420529	G	T	0.1235
23	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon6	E275D	chr7	140501247	T	A	0.2121
23	<i>WWP1</i>	stopgain SNV	NM_007013	exon24	W883X	chr8	87474054	G	A	0.3281
24	<i>ARID1A</i>	stopgain SNV	NM_006015	exon5	R693X	chr1	27087503	C	T	0.1550

24	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon18	R809Q	chr1	65307262	C	T	0.0462
24	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon44	E2014K	chr1	11187857	C	T	0.1911
24	<i>FANCF</i>	nonsynonymous SNV	NM_022725	exon1	P268T	chr11	22646555	G	T	0.2773
24	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	A510V	chr11	100998273	G	A	0.0312
24	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon22	R1095C	chr12	6700689	G	A	0.2107
24	<i>KRAS</i>	nonsynonymous SNV	NM_033360	exon3	T87I	chr12	25380198	G	A	0.0500
24	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon6	R102C	chr13	113887582	C	T	0.1805
24	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon8	R262Q	chr13	48937017	G	A	0.2372
24	<i>ALOX12B</i>	nonsynonymous SNV	NM_001139	exon10	G449W	chr17	7979992	C	A	0.4255
24	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon1	P20S	chr19	15311659	G	A	0.3529
24	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon5	D168V	chr2	202136340	A	T	0.2402
24	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon21	H1061Y	chr2	141680672	G	A	0.1928
24	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon65	C3403F	chr2	141201985	C	A	0.0522
24	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	A678T	chr20	39750417	G	A	0.0418
24	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon21	C733F	chr20	39751837	G	T	0.0372
24	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon9	L402I	chr3	41275038	C	A	0.2661
24	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon10	E605K	chr3	134898755	G	A	0.4425
24	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon8	R401Q	chr3	185169107	G	A	0.0474
24	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon2	G106C	chr3	178916929	G	T	0.1641
24	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon6	R216H	chr3	12647733	C	T	0.3123
24	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon23	M1087V	chr3	78685037	T	C	0.0617
24	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon12	R540C	chr5	138260270	C	T	0.2141
24	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon35	D1187G	chr5	169461495	A	G	0.1660
24	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon3	T46I	chr5	176517436	C	T	0.4136
24	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon15	S762G	chr5	180047891	T	C	0.1937
24	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0515
24	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0554

24	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	Q149R	chr6	157099509	A	G	0.2360
24	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	T524M	chr6	106553606	C	T	0.2215
24	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon12	R656W	chr7	100410521	G	A	0.2570
24	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	N316D	chr7	50467711	A	G	0.0350
24	<i>PIK3CG</i>	stopgain SNV	NM_002649	exon2	E539X	chr7	106509621	G	T	0.1535
24	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon22	S1281C	chr8	38135850	T	A	0.1938
24	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	N212K	chr8	87414344	C	G	0.0356
24	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon7	R368Q	chr9	136910527	C	T	0.4566
24	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon26	R1337C	chr9	8340357	G	A	0.2147
25	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon4	I95S	chr1	65344753	A	C	0.0391
25	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon28	G1370A	chr1	11259459	C	G	0.1519
25	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon2	E34A	chr1	11319366	T	G	0.0627
25	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon43	L2095I	chr11	108188184	C	A	0.1800
25	<i>ATM</i>	splicing	NM_000051	exon55	c.8151+2T>C	chr11	108205838	T	C	0.1736
25	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon1	V491I	chr11	92086749	G	A	0.0330
25	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon9	S743L	chr11	106558339	G	A	0.1426
25	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon4	M236T	chr11	106810685	A	G	0.0325
25	<i>HRAS</i>	nonsynonymous SNV	NM_005343	exon5	E162A	chr11	532721	T	G	0.1065
25	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon15	S561N	chr11	94180486	C	T	0.0199
25	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	A437V	chr11	100998492	G	A	0.0929
25	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon7	E294G	chr13	28623773	T	C	0.1730
25	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	D778N	chr14	102548571	C	T	0.0178
25	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A774T	chr14	102548583	C	T	0.0216
25	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0216
25	<i>B2M</i>	stopgain SNV	NM_004048	exon2	L107X	chr15	45007873	T	A	0.0302
25	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon19	L663P	chr16	2121826	T	C	0.0304
25	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon28	D1084G	chr16	2129396	A	G	0.1842

25	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon20	Q1010H	chr17	59761377	C	A	0.1537
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0210
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0237
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R873H	chr17	29556251	G	A	0.0197
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0291
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0254
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0311
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0351
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0248
25	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0307
25	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon3	P212S	chr18	59167708	C	T	0.1901
25	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0242
25	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon5	L252M	chr19	42791868	C	A	0.0618
25	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon19	S890G	chr19	17943340	T	C	0.0477
25	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon9	Q474P	chr19	15299117	T	G	0.0644
25	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon4	L164P	chr19	1220398	T	C	0.1562
25	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon4	I177T	chr19	1220437	T	C	0.1725
25	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon22	Q1159R	chr2	29445249	T	C	0.1583
25	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon4	R353M	chr2	29754877	C	A	0.0713
25	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon39	R2101I	chr2	141459710	C	A	0.2061
25	<i>MSH6</i>	stopgain SNV	NM_000179	exon4	E807X	chr2	48027541	G	T	0.1473
25	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon8	I1227T	chr2	48033376	T	C	0.1652
25	<i>NFE2L2</i>	nonsynonymous SNV	NM_006164	exon5	D283G	chr2	178096483	T	C	0.1609
25	<i>REL</i>	nonsynonymous SNV	NM_002908	exon11	H417R	chr2	61149060	A	G	0.1339
25	<i>REL</i>	nonsynonymous SNV	NM_002908	exon11	H417Q	chr2	61149061	C	G	0.1354
25	<i>ZNF217</i>	nonsynonymous SNV	NM_006526	exon3	T834I	chr20	52192802	G	A	0.2020
25	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon4	T380A	chr22	41523722	A	G	0.1549

25	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon25	G1382C	chr22	41564843	G	T	0.1754
25	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0266
25	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0177
25	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0184
25	<i>BAP1</i>	splicing	NM_004656	exon5	c.123-2A>G	chr3	52442624	T	C	0.1579
25	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon6	Q505R	chr3	187446174	T	C	0.0575
25	<i>CRBN</i>	nonsynonymous SNV	NM_016302	exon3	T71A	chr3	3215909	T	C	0.1512
25	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon33	S1095G	chr3	10127554	A	G	0.0697
25	<i>GSK3B</i>	nonsynonymous SNV	NM_002093	exon8	A298T	chr3	119595277	C	T	0.0277
25	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon4	K111T	chr3	51978425	A	C	0.1684
25	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon2	K111E	chr3	178916944	A	G	0.1187
25	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon3	A278T	chr4	66467437	C	T	0.5011
25	<i>KIT</i>	nonsynonymous SNV	NM_000222	exon14	Y675C	chr4	55595534	A	G	0.1283
25	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon36	F1391L	chr4	20619096	T	C	0.1705
25	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon3	K700E	chr4	106157197	A	G	0.1616
25	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	G2615C	chr5	112179188	G	T	0.1270
25	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon9	C434G	chr5	149449764	A	C	0.1826
25	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0267
25	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0281
25	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon38	V1836A	chr6	160500640	T	C	0.1726
25	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon13	K538T	chr7	55229306	A	C	0.0465
25	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon4	S760G	chr7	106513374	A	G	0.1516
25	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon6	Q235R	chr7	6038740	T	C	0.6793
25	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0210
25	<i>MYC</i>	nonsynonymous SNV	NM_002467	exon3	G300E	chr8	128752738	G	A	0.1176
25	<i>PRKDC</i>	splicing	NM_006904	exon73	c.10296+2T>C	chr8	48711769	A	G	0.1326
25	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	N118S	chr8	37554772	A	G	0.5660

25	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon15	H846R	chr9	98229421	T	C	0.1671
25	<i>GATA1</i>	nonsynonymous SNV	NM_002049	exon6	P390H	chrX	48652498	C	A	0.3499
25	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon23	R1111C	chrX	44942751	C	T	0.2705
26	<i>ABL2</i>	nonsynonymous SNV	NM_001136000	exon5	V230A	chr1	179090956	A	G	0.1275
26	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon1	P234T	chr1	27023594	C	A	0.0309
26	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon2	R75H	chr1	16199451	G	A	0.0583
26	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	E2825K	chr1	16261208	G	A	0.1989
26	<i>CYP17A1</i>	nonsynonymous SNV	NM_000102	exon6	R349H	chr10	104592361	C	T	0.1953
26	<i>ACVR1B</i>	stopgain SNV	NM_020328	exon10	R515X	chr12	52387796	C	T	0.1861
26	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon27	L1084P	chr12	56494894	T	C	0.2355
26	<i>DIS3</i>	nonsynonymous SNV	NM_014953	exon18	N818H	chr13	73335843	T	G	0.2705
26	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	D1286N	chr13	25009423	C	T	0.0605
26	<i>RB1</i>	splicing	NM_000321	exon10	c.940-1G>T	chr13	48941629	G	T	0.1823
26	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	P187S	chr14	36987130	G	A	0.0355
26	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	P2234L	chr16	3778347	G	A	0.2003
26	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0336
26	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0425
26	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0413
26	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0449
26	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon8	P345L	chr17	38511536	C	T	0.4409
26	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon19	A691T	chr18	39620673	G	A	0.1650
26	<i>SMAD2</i>	nonsynonymous SNV	NM_001003652	exon11	P445H	chr18	45368268	G	T	0.1590
26	<i>AKT2</i>	nonsynonymous SNV	NM_001626	exon6	R176H	chr19	40747891	C	T	0.0374
26	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0349
26	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon8	P383T	chr19	42793345	C	A	0.0270
26	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon20	H884R	chr19	11132435	A	G	0.2202
26	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon59	I3123M	chr2	141242968	T	C	0.1294

26	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon54	P2872T	chr2	141260580	G	T	0.1960
26	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon2	G241S	chr2	16082907	G	A	0.0465
26	<i>SMARCB1</i>	nonsynonymous SNV	NM_003073	exon3	T114P	chr22	24135853	A	C	0.4839
26	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon13	R551C	chr3	52437510	G	A	0.1810
26	<i>MITF</i>	nonsynonymous SNV	NM_001184967	exon3	A125T	chr3	69987147	G	A	0.1563
26	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon1	G3S	chr4	66535454	C	T	0.4413
26	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon2	S46N	chr5	180058700	C	T	0.4118
26	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0601
26	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0297
26	<i>TERT</i>	upstream	.	.	.	chr5	1295519	C	T	0.2110
26	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon57	R2945H	chr6	51618115	C	T	0.1940
26	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon7	R444Q	chr7	100416233	C	T	0.1083
26	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0264
26	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon3	D65G	chr7	6431641	A	G	0.1316
26	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon26	R1216W	chr7	98529082	C	T	0.1892
26	<i>PRKDC</i>	splicing	NM_006904	exon20	c.2053-1G>T	chr8	48841739	C	A	0.1698
26	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon11	E1309K	chrX	76920152	C	T	0.0391
26	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon9	Q483K	chrX	76939301	G	T	0.0418
27	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	P2011H	chr1	16258767	C	A	0.1770
27	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon1	A72T	chr11	106888568	C	T	0.1952
27	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon11	T1887M	chr13	32914152	C	T	0.1832
27	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	L1319F	chr13	25009322	C	A	0.0333
27	<i>FANCM</i>	stopgain SNV	NM_020937	exon11	G632X	chr14	45636258	G	T	0.2222
27	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon11	P652H	chr14	45636319	C	A	0.1746
27	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon6	A241T	chr17	37866416	G	A	0.1421
27	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0588
27	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0525

27	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0363
27	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon4	P138L	chr19	10291058	G	A	0.1348
27	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon27	V1433M	chr19	2226817	G	A	0.4678
27	<i>MAP2K2</i>	nonsynonymous SNV	NM_030662	exon3	P128L	chr19	4110574	G	A	0.1411
27	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon10	R420L	chr19	52723074	G	T	0.0972
27	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon18	D702N	chr2	25463578	C	T	0.1867
27	<i>MSH2</i>	nonsynonymous SNV	NM_001258281	exon13	P550H	chr2	47702251	C	A	0.1681
27	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	S400R	chr20	54945226	G	T	0.0307
27	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0449
27	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	T680M	chr20	39750424	C	T	0.0373
27	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0507
27	<i>TGFBR2</i>	nonsynonymous SNV	NM_001024847	exon8	E567D	chr3	30733013	G	T	0.1282
27	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon4	R1161K	chr4	106162568	G	A	0.1831
27	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon11	K1928N	chr4	106197451	A	C	0.1576
27	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0831
27	<i>PIK3R1</i>	nonsynonymous SNV	NM_181523	exon13	D560G	chr5	67591086	A	G	0.1903
27	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	P450S	chr6	157100411	C	T	0.4000
27	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	S1949F	chr6	157528121	C	T	0.3369
27	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon24	G1486S	chr6	32166782	C	T	0.1645
27	<i>EZH2</i>	splicing	NM_004456	exon13	c.1411-1G>T	chr7	148513871	C	A	0.1407
27	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0491
27	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon15	A567V	chr9	135781265	G	A	0.0707
28	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	L20Q	chr1	22405030	T	A	0.0285
28	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	A130S	chr1	22413261	G	T	0.0212
28	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon7	R1510W	chr11	92523301	C	T	0.0586
28	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon4	E77K	chr11	94219175	C	T	0.0239
28	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	A120T	chr11	100999444	C	T	0.3176



28	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0407
28	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R351Q	chr12	112915779	G	A	0.0235
28	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon7	V490D	chr14	102550780	A	T	0.0298
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon15	H553R	chr17	29548884	A	G	0.0237
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0263
28	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0439
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	A320S	chr17	29527509	G	T	0.0189
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	V325A	chr17	29527525	T	C	0.0204
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0252
28	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0435
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0341
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0354
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	N793S	chr17	29554593	A	G	0.0258
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0258
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0419
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0325
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0196
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0214
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T940A	chr17	29556451	A	G	0.0233
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0348
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0282
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	N994Y	chr17	29556982	A	T	0.0256
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0361
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0198
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	T1145A	chr17	29559836	A	G	0.0208
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	L1187P	chr17	29560083	T	C	0.0379
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0239

28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0282
28	<i>NF1</i>	stopgain SNV	NM_001042492	exon29	Q1298X	chr17	29562957	C	T	0.0280
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	R1306Q	chr17	29562982	G	A	0.0188
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0350
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon33	N1471S	chr17	29586129	A	G	0.0240
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0178
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0240
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0254
28	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0226
28	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	P178R	chr19	42791552	C	G	0.0165
28	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0279
28	<i>INSR</i>	upstream	.	.	.	chr19	7294056	G	A	0.0750
28	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon3	M53I	chr2	202131368	G	A	0.5597
28	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon37	R1987C	chr2	141473606	G	A	0.1617
28	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon3	G309V	chr2	16085750	G	T	0.3114
28	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	S361L	chr20	54945344	G	A	0.0255
28	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon8	Y320C	chr20	54945611	T	C	0.0399
28	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon17	R590H	chr20	39744979	G	A	0.0302
28	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0462
28	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	E493K	chr22	29091142	C	T	0.0246
28	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0380
28	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0256
28	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon6	D141N	chr22	29678386	G	A	0.0237
28	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0260
28	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0368
28	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0264
28	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon35	P1990L	chr3	142212083	G	A	0.1984

28	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0194
28	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon11	S475R	chr3	78719371	T	G	0.2570
28	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon4	V204I	chr3	77530313	G	A	0.0268
28	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon8	V230G	chr4	20490519	T	G	0.1625
28	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0714
28	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon11	S418T	chr6	117714397	A	T	0.5510
28	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0268
28	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	P159L	chr7	6441629	C	T	0.0241
28	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	K187N	chr8	38205129	T	G	0.0422
28	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon4	P62L	chr8	87393069	C	T	0.0250
28	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0215
28	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon22	R819Q	chr8	87470211	G	A	0.0186
28	<i>FANCC</i>	nonsynonymous SNV	NM_000136	exon12	R361Q	chr9	97876983	C	T	0.2784
29	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0294
29	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	G15S	chr1	22405014	G	A	0.0273
29	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0297
29	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon1	M1R	chr10	89624228	T	G	0.0330
29	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon13	K464R	chr11	94192683	T	C	0.0313
29	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0318
29	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	S34N	chr12	112884166	G	A	0.0248
29	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0381
29	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon14	T553K	chr12	112940006	C	A	0.0258
29	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon26	R1139K	chr13	28886206	C	T	0.0441
29	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon33	E1643K	chr13	25000656	C	T	0.0299
29	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	S1288N	chr13	25009416	C	T	0.0285
29	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon14	S565P	chr13	25051935	A	G	0.0591
29	<i>AKT1</i>	nonsynonymous SNV	NM_001014431	exon3	L52H	chr14	105246445	A	T	0.0406

29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	M750V	chr14	102548655	T	C	0.0229
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A774T	chr14	102548583	C	T	0.0192
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A740V	chr14	102548684	G	A	0.0216
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0322
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0313
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0360
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	H572Q	chr14	102550019	G	T	0.0491
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	D278N	chr14	102552158	C	T	0.0325
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	Q255K	chr14	102552227	G	T	0.0214
29	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	R182W	chr14	102552446	G	A	0.0392
29	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon18	T733I	chr17	37879903	C	T	0.0190
29	<i>MAP2K4</i>	stopgain SNV	NM_003010	exon9	R304X	chr17	12032474	C	T	0.0476
29	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon2	R19H	chr17	16097828	C	T	0.0254
29	<i>NF1</i>	stopgain SNV	NM_001042492	exon9	R304X	chr17	29527461	C	T	0.0248
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0387
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0604
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0348
29	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0432
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0419
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0639
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0342
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0332
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0680
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0448
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	G842S	chr17	29556157	G	A	0.0338
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0363
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0316

29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0481
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0287
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	R1000C	chr17	29557285	C	T	0.0235
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0402
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0434
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	V1120A	chr17	29559762	T	C	0.0334
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	L1141R	chr17	29559825	T	G	0.0373
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0507
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0530
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0607
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0269
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0313
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0211
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0375
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0432
29	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	V1609A	chr17	29592348	T	C	0.0355
29	<i>PRKAR1A</i>	nonsynonymous SNV	NM_001276289	exon10	G279W	chr17	66525076	G	T	0.0264
29	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon18	A698V	chr17	78865629	C	T	0.4128
29	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	P178R	chr19	42791552	C	G	0.0348
29	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0837
29	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0552
29	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon5	T142A	chr2	209110139	T	C	0.0345
29	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	A399T	chr20	54945231	C	T	0.0220
29	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon8	Y320C	chr20	54945611	T	C	0.0432
29	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon7	D274N	chr20	54948498	C	T	0.0322
29	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0284
29	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon21	E1161K	chr22	23656178	G	A	0.0255

29	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0585
29	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0294
29	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T60I	chr22	29669806	C	T	0.0339
29	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q235L	chr22	29683034	A	T	0.0337
29	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0454
29	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0211
29	<i>GSK3B</i>	nonsynonymous SNV	NM_002093	exon10	R357Q	chr3	119582331	C	T	0.0318
29	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon4	V204I	chr3	77530313	G	A	0.0410
29	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon18	K845R	chr5	138269591	A	G	0.0417
29	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0484
29	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0750
29	<i>NPM1</i>	stopgain SNV	NM_002520	exon3	Q84X	chr5	170818420	C	T	0.0196
29	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	V99L	chr5	170818746	G	C	0.0221
29	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0381
29	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon10	R277W	chr5	170834761	C	T	0.0495
29	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon7	S415F	chr6	32187977	G	A	0.4220
29	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon18	R684C	chr7	148506462	G	A	0.0621
29	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0218
29	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0388
29	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0274
29	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	T144P	chr7	6441583	A	C	0.0356
29	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0316
29	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon19	R685H	chr8	87460432	G	A	0.0405
29	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon11	P681L	chr9	133759662	C	T	0.4454
29	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon3	V121G	chr9	80430646	A	C	0.0314
29	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon26	R1546W	chrX	53222196	G	A	0.0374
29	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon12	I533T	chrX	41007800	T	C	0.0659

30	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0459
30	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	G15S	chr1	22405014	G	A	0.0432
30	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon13	R682H	chr1	11298063	C	T	0.1286
30	<i>GATA3</i>	nonsynonymous SNV	NM_002051	exon3	V161I	chr10	8100507	G	A	0.1027
30	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon3	V104M	chr12	56478854	G	A	0.1150
30	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon23	E928G	chr12	56492633	A	G	0.0559
30	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon28	L1231P	chr12	56495502	T	C	0.1014
30	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0317
30	<i>PTPN11</i>	stopgain SNV	NM_002834	exon6	R231X	chr12	112893802	C	T	0.0377
30	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0371
30	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	T337M	chr12	112915737	C	T	0.0280
30	<i>PTPN11</i>	stopgain SNV	NM_002834	exon9	R351X	chr12	112915778	C	T	0.0340
30	<i>RAD52</i>	nonsynonymous SNV	NM_134424	exon3	L43P	chr12	1040444	A	G	0.0662
30	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon7	A491E	chr12	115112268	G	T	0.4402
30	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0364
30	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	R634G	chr14	102549592	G	C	0.0318
30	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon26	T1089S	chr15	93528756	C	G	0.0336
30	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0758
30	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon4	E141G	chr15	49776538	A	G	0.0374
30	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon8	R713H	chr16	343536	C	T	0.0433
30	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon3	R63G	chr16	68835596	C	G	0.1069
30	<i>AURKB</i>	nonsynonymous SNV	NM_004217	exon5	E127K	chr17	8110513	C	T	0.0558
30	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0366
30	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon22	S989R	chr17	15995228	T	G	0.1139
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0354
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0284
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0476

30	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0471
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0609
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	R720W	chr17	29553609	C	T	0.0294
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0484
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0268
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0345
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0273
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0376
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	N905K	chr17	29556348	C	G	0.0225
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0393
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0408
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0405
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0381
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0500
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	L1141R	chr17	29559825	T	G	0.0310
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	L1187P	chr17	29560083	T	C	0.0442
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	R1207K	chr17	29560143	G	A	0.0366
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0372
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0445
30	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0390
30	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon9	T397M	chr17	38512279	C	T	0.0762
30	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon3	Y137C	chr19	15379729	T	C	0.0827
30	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon3	S146N	chr19	42791377	G	A	0.0419
30	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	E159D	chr19	42791496	G	C	0.0303
30	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0901
30	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon10	R287H	chr19	45867333	C	T	0.0231
30	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon2	R92Q	chr19	7267733	C	T	0.1149



30	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon21	Y833C	chr2	212295815	T	C	0.1306
30	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0495
30	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0513
30	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0462
30	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0334
30	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon3	P79H	chr22	30742458	G	T	0.0734
30	<i>CRBN</i>	nonsynonymous SNV	NM_016302	exon3	G94R	chr3	3215840	C	T	0.0781
30	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon7	E334K	chr3	41268762	G	A	0.1111
30	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	R117C	chr3	138665216	G	A	0.0548
30	<i>MITF</i>	nonsynonymous SNV	NM_001184967	exon9	N327D	chr3	70008545	A	G	0.0765
30	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon14	N624T	chr5	176523107	A	C	0.5164
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon1	S4L	chr5	170814963	C	T	0.0281
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0644
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0913
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D34N	chr5	170817096	G	A	0.0307
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0338
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142W	chr5	170819785	C	T	0.0276
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0303
30	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon6	E170D	chr5	170819968	G	T	0.0440
30	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0380
30	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0436
30	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	V63M	chr7	6043666	C	T	0.0461
30	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon69	Q3623H	chr7	98606157	G	T	0.0200
30	<i>KAT6A</i>	stopgain SNV	NM_001099412	exon3	R79X	chr8	41906261	G	A	0.0617
30	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0314
30	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	A234T	chr8	87414408	G	A	0.0248
30	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	R764H	chr8	87464805	G	A	0.0424

30	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon25	F919C	chr8	87479109	T	G	0.0446
30	<i>PAX5</i>	nonsynonymous SNV	NM_016734	exon2	V26G	chr9	37020768	A	C	0.1003
30	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon17	Q692H	chrX	44928976	G	T	0.2829
31	<i>AKT3</i>	nonsynonymous SNV	NM_181690	exon3	T81A	chr1	243828117	T	C	0.0836
31	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon1	E193D	chr1	27023473	G	T	0.4502
31	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon1	P194S	chr1	27023474	C	T	0.4427
31	<i>ARID1A</i>	stopgain SNV	NM_006015	exon8	G838X	chr1	27089556	G	T	0.0839
31	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0414
31	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon6	R143C	chr1	206649592	C	T	0.0628
31	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon13	R557C	chr1	45294008	G	A	0.0997
31	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon19	A727D	chr1	46743890	C	A	0.0854
31	<i>RET</i>	nonsynonymous SNV	NM_020975	exon11	A639T	chr10	43609963	G	A	0.0574
31	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	V221I	chr11	100999141	C	T	0.3313
31	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon17	R1679Q	chr12	46285676	G	A	0.0657
31	<i>SMARCD1</i>	nonsynonymous SNV	NM_003076	exon1	A16T	chr12	50479198	G	A	0.0633
31	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A1089P	chr13	110435136	C	G	0.0353
31	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon1	Y29C	chr14	102605656	T	C	0.0861
31	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0431
31	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon4	P329L	chr15	99440018	C	T	0.0391
31	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon6	S192N	chr16	89874723	C	T	0.0870
31	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon5	R663H	chr16	23641487	C	T	0.0530
31	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0373
31	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon7	R251H	chr17	59885994	C	T	0.0759
31	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon21	V842I	chr17	37881332	G	A	0.0837
31	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon20	A881V	chr17	16004612	G	A	0.1022
31	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0410
31	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon58	R2812Q	chr17	29701088	G	A	0.0892

31	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon4	Y142C	chr17	38506133	A	G	0.1339
31	<i>SRSF1</i>	nonsynonymous SNV	NM_006924	exon4	P239T	chr17	56082799	G	T	0.0490
31	<i>AXL</i>	nonsynonymous SNV	NM_021913	exon6	P238T	chr19	41737132	C	A	0.1111
31	<i>CEBPA</i>	nonsynonymous SNV	NM_004364	exon1	T310M	chr19	33792392	G	A	0.1077
31	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon2	A58T	chr19	42791027	G	A	0.0336
31	<i>GNA11</i>	nonsynonymous SNV	NM_002067	exon2	R73H	chr19	3110228	G	A	0.0775
31	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	G1347R	chr19	15288700	C	G	0.3138
31	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon6	I183V	chr2	202137400	A	G	0.0683
31	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon39	R2075H	chr2	141459788	C	T	0.0719
31	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon41	I2200M	chr2	141458018	T	C	0.0913
31	<i>SF3B1</i>	stopgain SNV	NM_012433	exon10	L467X	chr2	198270036	A	T	0.0935
31	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	N324D	chr20	57429290	A	G	0.0386
31	<i>NCOA3</i>	nonsynonymous SNV	NM_006534	exon7	A213T	chr20	46256409	G	A	0.4986
31	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0356
31	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0476
31	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon3	R159W	chr22	38374096	G	A	0.0516
31	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon3	E196K	chr22	38373985	C	T	0.0341
31	<i>EPHA6</i>	upstream	.	.	.	chr3	96533394	G	A	0.0769
31	<i>EPHA6</i>	upstream	.	.	.	chr3	96533403	C	T	0.4908
31	<i>MITF</i>	nonsynonymous SNV	NM_001184967	exon10	T464M	chr3	70014383	C	T	0.0680
31	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon7	G254R	chr5	176519354	G	A	0.0668
31	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon21	E989K	chr5	180045806	C	T	0.0669
31	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon35	S1571L	chr5	38945092	G	A	0.0518
31	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon31	T1271M	chr5	38950138	G	A	0.0809
31	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	A523V	chr6	106553603	C	T	0.0373
31	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon18	A762T	chr7	140434414	C	T	0.0273
31	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon4	C194Y	chr7	140508719	C	T	0.0350

31	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon6	Q217R	chr7	55220260	A	G	0.0996
31	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0378
31	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon3	G212D	chr7	128845141	G	A	0.0438
31	<i>PRKDC</i>	splicing	NM_006904	exon12	c.1113+2T>C	chr8	48852109	A	G	0.0469
31	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon15	S910L	chr8	38156991	G	A	0.0423
31	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon19	R685H	chr8	87460432	G	A	0.0622
31	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	A114V	chr8	37554760	C	T	0.0357
31	<i>AR</i>	nonsynonymous SNV	NM_001011645	exon5	L213F	chrX	66937379	C	T	0.1455
31	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon3	A399T	chrX	129147943	G	A	0.1273
31	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon6	T1342S	chrX	129159300	A	T	0.0837
31	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon41	A1960S	chrX	70357627	G	T	0.0625
32	<i>FUBP1</i>	nonsynonymous SNV	NM_003902	exon19	T601A	chr1	78414965	T	C	0.5183
32	<i>NTRK1</i>	nonsynonymous SNV	NM_001007792	exon15	V627A	chr1	156849096	T	C	0.2759
32	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon2	R78W	chr1	226589969	G	A	0.0450
32	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon4	R35W	chr1	46715684	C	T	0.3298
32	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon1	M1R	chr10	89624228	T	G	0.0410
32	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	G2217D	chr11	92532829	G	A	0.4027
32	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	D2856Y	chr11	92534745	G	T	0.1987
32	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	R167Q	chr11	100999302	C	T	0.2175
32	<i>CDK4</i>	nonsynonymous SNV	NM_000075	exon7	L273V	chr12	58142967	G	C	0.2908
32	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon4	R168G	chr12	56480395	A	G	0.2526
32	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	F29V	chr12	112884150	T	G	0.0683
32	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	A509T	chr12	112926905	G	A	0.0512
32	<i>FGF14</i>	stopgain SNV	NM_004115	exon5	R207X	chr13	102375306	G	A	0.1355
32	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon27	N1204S	chr13	28885751	T	C	0.0591
32	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon27	S1197G	chr13	28885773	T	C	0.0528
32	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	G504S	chr13	110436891	C	T	0.4164

32	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0498
32	<i>B2M</i>	nonsynonymous SNV	NM_004048	exon1	M1L	chr15	45003745	A	C	0.2297
32	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0739
32	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon7	A626T	chr16	347135	C	T	0.2216
32	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon5	R424Q	chr16	3842041	C	T	0.2746
32	<i>CTCF</i>	nonsynonymous SNV	NM_006565	exon9	R566C	chr16	67662450	C	T	0.1567
32	<i>CTCF</i>	nonsynonymous SNV	NM_006565	exon10	R596C	chr16	67663385	C	T	0.2611
32	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0641
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0680
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0385
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0814
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	R720W	chr17	29553609	C	T	0.0423
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0728
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0440
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0375
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R873H	chr17	29556251	G	A	0.0307
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0535
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0424
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0458
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0513
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	V1120A	chr17	29559762	T	C	0.0451
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0530
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	A1224V	chr17	29560194	C	T	0.0456
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0607
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0565
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	W1314G	chr17	29563005	T	G	0.0421
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	V1405A	chr17	29585402	T	C	0.0478

32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	W1512R	chr17	29587490	T	C	0.0455
32	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0507
32	<i>RNF43</i>	stopgain SNV	NM_017763	exon4	R132X	chr17	56440943	G	A	0.2333
32	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon22	R849H	chr17	78896549	G	A	0.1901
32	<i>SRSF2</i>	nonsynonymous SNV	NM_003016	exon1	K65N	chr17	74733048	C	A	0.1456
32	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon14	P1019L	chr19	15353824	G	A	0.4877
32	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon7	R351W	chr19	42793159	C	T	0.0545
32	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	E159D	chr19	42791496	G	C	0.0551
32	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	I160T	chr19	42791498	T	C	0.0514
32	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	S479N	chr19	42794075	G	A	0.0640
32	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0925
32	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon36	P1408H	chr19	10248578	G	T	0.3220
32	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon5	E123K	chr19	2191113	G	A	0.1826
32	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon22	R686H	chr19	45855600	C	T	0.0409
32	<i>MEF2B</i>	nonsynonymous SNV	NM_001145785	exon3	R64H	chr19	19260102	C	T	0.1675
32	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon25	Y1474H	chr19	15285195	A	G	0.1611
32	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon7	W489R	chr2	29543698	A	G	0.2960
32	<i>BARD1</i>	nonsynonymous SNV	NM_000465	exon4	R322C	chr2	215645634	G	A	0.1939
32	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon4	G355S	chr2	48026185	G	A	0.4667
32	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon19	L734I	chr20	39795398	C	A	0.1191
32	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon21	E1161K	chr22	23656178	G	A	0.0645
32	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0435
32	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q235L	chr22	29683034	A	T	0.0640
32	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon2	P46L	chr22	38379655	G	A	0.2006
32	<i>EPHA6</i>	upstream	.	.	.	chr3	96533414	G	A	0.2563
32	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon3	R306H	chr3	96706640	G	A	0.2708
32	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	A86V	chr3	138665308	G	A	0.2700

32	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon6	A342T	chr3	128200781	C	T	0.1144
32	<i>TGFBR2</i>	nonsynonymous SNV	NM_001024847	exon5	R373H	chr3	30713718	G	A	0.1420
32	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon20	L1503P	chr5	56189476	T	C	0.1859
32	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0489
32	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0881
32	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0544
32	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon13	S785C	chr6	32948443	C	G	0.4370
32	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon61	K3493N	chr6	51524445	C	A	0.2473
32	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon59	D3293N	chr6	51611640	C	T	0.2283
32	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon58	V3173A	chr6	51612896	A	G	0.2390
32	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon8	G297S	chr7	83640535	C	T	0.3077
32	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon38	S1784I	chr7	98548536	G	T	0.2200
32	<i>MYC</i>	nonsynonymous SNV	NM_002467	exon2	Y192C	chr8	128751038	A	G	0.0943
32	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon10	R248Q	chr8	93004034	C	T	0.1526
32	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon2	R245H	chr8	9437729	G	A	0.1468
32	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon6	R357W	chr8	38187408	G	A	0.0577
32	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	S38I	chr8	38205577	C	A	0.0481
32	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon17	R595C	chr8	87450847	C	T	0.0511
32	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon23	R845L	chr8	87473487	G	T	0.0390
32	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon25	R893H	chr8	87479031	G	A	0.1721
32	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	A115V	chr8	37554763	C	T	0.1151
32	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon6	L343M	chr9	136913264	G	T	0.1366
32	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon6	S341N	chr9	139413120	C	T	0.1682
33	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	A342V	chr1	118166515	C	T	0.1448
33	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R1950G	chr1	16258583	A	G	0.1268
33	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon17	A3506T	chr11	92573875	G	A	0.1111
33	<i>ARID2</i>	stopgain SNV	NM_152641	exon15	Q817X	chr12	46244355	C	T	0.1438

33	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon14	T543I	chr12	112939976	C	T	0.0462
33	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	G533S	chr13	110436804	C	T	0.1502
33	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A512T	chr13	110436867	C	T	0.4615
33	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon12	R849C	chr14	102548069	G	A	0.0313
33	<i>HSP90AA1</i>	splicing	NM_001017963	exon8	c.1348-1G>A	chr14	102550902	C	T	0.0968
33	<i>B2M</i>	splicing	NM_004048	exon2	c.346+1G>T	chr15	45007900	G	T	0.2685
33	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0510
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	A320S	chr17	29527509	G	T	0.0487
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0448
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0526
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0320
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N736S	chr17	29553658	A	G	0.0357
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0446
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0252
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0477
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0376
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0257
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0440
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0468
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0485
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0381
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	I1414M	chr17	29585430	C	G	0.0374
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0326
33	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0349
33	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon5	R215Q	chr19	42791758	G	A	0.0259
33	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0661
33	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon6	A144V	chr19	45868346	G	A	0.4356



33	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon20	G615R	chr19	45856063	C	T	0.1278
33	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon8	G310R	chr2	209104650	C	T	0.1486
33	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon77	D3897Y	chr2	141108569	C	A	0.1204
33	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon11	M549I	chr2	141806697	C	T	0.1157
33	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon14	P802L	chr22	41545790	C	T	0.0580
33	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon8	R207W	chr3	52440885	G	A	0.0905
33	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon10	H450Y	chr3	51981827	C	T	0.0808
33	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon27	R1387C	chr3	78666908	G	A	0.0487
33	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon3	R158Q	chr3	77526649	G	A	0.0429
33	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon13	R394H	chr5	169127066	G	A	0.1468
33	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon13	A631V	chr5	180048670	G	A	0.1306
33	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0325
33	<i>NPM1</i>	stopgain SNV	NM_002520	exon8	R197X	chr5	170827849	C	T	0.0424
33	<i>PIK3R1</i>	splicing	NM_181523	exon4	c.502+1G>A	chr5	67569842	G	A	0.1451
33	<i>DAXX</i>	nonsynonymous SNV	NM_001350	exon3	T249I	chr6	33288806	G	A	0.1425
33	<i>ETV1</i>	upstream	.	.	.	chr7	14030081	A	G	0.3803
33	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	L216P	chr7	27148219	A	G	0.0330
33	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0266
33	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0315
33	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon13	E493G	chr7	83614768	T	C	0.0645
33	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon1	A30V	chr7	128829081	C	T	0.1290
33	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0412
33	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	V183I	chr8	87414255	G	A	0.0396
33	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon18	T648I	chr8	87454952	C	T	0.0351
34	<i>MEN1</i>	nonsynonymous SNV	NM_130804	exon6	D274N	chr11	64574670	C	T	0.1101
34	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon11	Q404K	chr11	94197294	G	T	0.0680
34	<i>MRE11A</i>	stopgain SNV	NM_005590	exon11	Q383X	chr11	94197357	G	A	0.0602

34	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon6	A353G	chr12	52377906	C	G	0.5287
34	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon14	G539E	chr12	112939964	G	A	0.0924
34	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon20	V1724G	chr14	45658396	T	G	0.4711
34	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	G922S	chr17	29556397	G	A	0.0657
34	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0649
34	<i>TP53</i>	stopgain SNV	NM_000546	exon6	R196X	chr17	7578263	G	A	0.1217
34	<i>AXL</i>	stopgain SNV	NM_021913	exon11	G456X	chr19	41748841	G	T	0.0870
34	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0701
34	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon20	V786A	chr2	212426758	A	G	0.0896
34	<i>MSH2</i>	nonsynonymous SNV	NM_001258281	exon17	I817M	chr2	47709932	T	G	0.5197
34	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A314T	chr20	57429260	G	A	0.5888
34	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon7	P358L	chr22	39388093	C	T	0.2000
34	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0556
34	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon10	P293L	chr3	52439834	G	A	0.0896
34	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon4	L188R	chr3	77530266	T	G	0.1016
34	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon9	P447L	chr3	77607203	C	T	0.0652
34	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0745
34	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon16	C1479Y	chr5	176694659	G	A	0.0657
34	<i>ARID1B</i>	stopgain SNV	NM_020732	exon20	W1937X	chr6	157528086	G	A	0.0710
34	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	L388P	chr7	27147703	A	G	0.0711
34	<i>INHBA</i>	stopgain SNV	NM_002192	exon3	Q233X	chr7	41729832	G	A	0.0947
35	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	A146V	chr1	22413310	C	T	0.0265
35	<i>CDC73</i>	nonsynonymous SNV	NM_024529	exon16	R504H	chr1	193218953	G	A	0.2664
35	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	Q53P	chr1	118165648	A	C	0.5547
35	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon55	I2483V	chr1	11169706	T	C	0.2489
35	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon44	R2036H	chr1	11187790	C	T	0.3372
35	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon3	G127R	chr1	226579923	C	T	0.0475

35	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon3	T124K	chr1	226579931	G	T	0.0538
35	<i>PARP1</i>	stopgain SNV	NM_001618	exon3	Y117X	chr1	226579951	A	C	0.0440
35	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon2	R78W	chr1	226589969	G	A	0.0584
35	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon5	Y137C	chr11	108106475	A	G	0.2874
35	<i>FGF6</i>	nonsynonymous SNV	NM_020996	exon1	R84W	chr12	4554487	G	A	0.2644
35	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon17	R550H	chr12	50031341	G	A	0.2987
35	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	S34N	chr12	112884166	G	A	0.0327
35	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon4	G163S	chr12	112891153	G	A	0.0343
35	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	D487N	chr12	112926839	G	A	0.0412
35	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	R498Q	chr12	112926873	G	A	0.0371
35	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	A509T	chr12	112926905	G	A	0.0339
35	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon20	A814T	chr13	28592705	C	T	0.3419
35	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0412
35	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	Y602C	chr14	102549930	T	C	0.0708
35	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0872
35	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon6	E261K	chr16	68844193	G	A	0.3249
35	<i>CTCF</i>	nonsynonymous SNV	NM_006565	exon5	R320H	chr16	67650654	G	A	0.3758
35	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon18	N563D	chr16	89846305	T	C	0.2788
35	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon6	V187I	chr16	89874739	C	T	0.3590
35	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon3	P13Q	chr16	10274231	G	T	0.0853
35	<i>AURKB</i>	nonsynonymous SNV	NM_004217	exon8	R248C	chr17	8108653	G	A	0.2915
35	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0381
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0313
35	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0490
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0373
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0424
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0585

35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0276
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0519
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0329
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R873H	chr17	29556251	G	A	0.0330
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	P931L	chr17	29556425	C	T	0.0327
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0299
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0521
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	L1141R	chr17	29559825	T	G	0.0379
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	T1145A	chr17	29559836	A	G	0.0389
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	T1184I	chr17	29560074	C	T	0.0452
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0579
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	R1250W	chr17	29562668	C	T	0.0450
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0399
35	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0673
35	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon22	T857M	chr17	78896573	C	T	0.2928
35	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon4	T232I	chr18	42530000	C	T	0.3099
35	<i>CCNE1</i>	nonsynonymous SNV	NM_001238	exon12	P396L	chr19	30314638	C	T	0.3636
35	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon2	P65S	chr19	42791048	C	T	0.0351
35	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon3	A92V	chr19	42791215	C	T	0.0469
35	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0782
35	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0556
35	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon17	T1398M	chr19	42798239	C	T	0.2896
35	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon9	I439T	chr2	202150001	T	C	0.3200
35	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon38	D2048N	chr2	141460004	C	T	0.3422
35	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon21	Q1059H	chr2	141680676	C	A	0.3178
35	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon3	T403M	chr2	16086032	C	T	0.2165
35	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0618

35	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0278
35	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0334
35	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0287
35	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0564
35	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0581
35	<i>SMARCB1</i>	nonsynonymous SNV	NM_003073	exon9	R377C	chr22	24176338	C	T	0.2369
35	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon44	D1442G	chr3	10142915	A	G	0.4774
35	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	R117C	chr3	138665216	G	A	0.0734
35	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon5	I197T	chr5	176518092	T	C	0.4432
35	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.1152
35	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	R101K	chr5	170818753	G	A	0.0346
35	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142W	chr5	170819785	C	T	0.0304
35	<i>NPM1</i>	stopgain SNV	NM_002520	exon8	R197X	chr5	170827849	C	T	0.0402
35	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0469
35	<i>PDGFRB</i>	nonsynonymous SNV	NM_002609	exon10	V514A	chr5	149509358	A	G	0.0284
35	<i>PNRC1</i>	stopgain SNV	NM_006813	exon1	Y117X	chr6	89790964	C	A	0.2764
35	<i>ETV1</i>	upstream	.	.	.	chr7	14029817	C	T	0.0332
35	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0345
35	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0514
35	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon46	E2258K	chr7	98560014	G	A	0.2047
35	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0372
35	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	V204F	chr9	80409504	C	A	0.0457
35	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon29	R1824Q	chr9	139396454	C	T	0.2153
35	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon16	D834N	chr9	8460544	C	T	0.3832
35	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon6	L1346P	chrX	129159313	T	C	0.3601
35	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon13	R590W	chrX	70344032	C	T	0.3024
35	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon22	P1010S	chrX	70347789	C	T	0.3673

35	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon18	A825D	chrX	41027309	C	A	0.0936
36	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon8	V257M	chr1	162729683	G	A	0.1923
36	<i>ATM</i>	stopgain SNV	NM_000051	exon49	S2389X	chr11	108199824	C	A	0.1588
36	<i>CBL</i>	nonsynonymous SNV	NM_005188	exon13	T713K	chr11	119167729	C	A	0.1494
36	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon12	R475W	chr12	56487277	C	T	0.1473
36	<i>FGF6</i>	nonsynonymous SNV	NM_020996	exon3	G187R	chr12	4543449	C	T	0.1628
36	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	T12I	chr12	112884100	C	T	0.0324
36	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R351Q	chr12	112915779	G	A	0.0452
36	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon6	S437N	chr14	102551055	C	T	0.0321
36	<i>XRCC3</i>	nonsynonymous SNV	NM_005432	exon6	R74Q	chr14	104173525	C	T	0.1622
36	<i>B2M</i>	stopgain SNV	NM_004048	exon2	C45X	chr15	45007688	C	A	0.1567
36	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0539
36	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon7	V393M	chr16	66426246	G	A	0.0635
36	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon2	R8C	chr16	2213943	C	T	0.1389
36	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon20	R1035H	chr17	59761303	C	T	0.1842
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0459
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0318
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0463
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0500
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0383
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0407
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0522
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0596
36	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0329
36	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon7	G244C	chr17	7577551	C	A	0.1250
36	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon15	V535I	chr18	39609301	G	A	0.2000
36	<i>SMAD2</i>	nonsynonymous SNV	NM_001003652	exon8	R310M	chr18	45374914	C	A	0.1559

36	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon14	P1019L	chr19	15353824	G	A	0.5219
36	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0541
36	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon20	I632V	chr19	45856012	T	C	0.1923
36	<i>KEAP1</i>	nonsynonymous SNV	NM_203500	exon3	R320W	chr19	10602620	G	A	0.1351
36	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon19	E861K	chr19	11130342	G	A	0.1511
36	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon15	T681I	chr19	11118618	C	T	0.1315
36	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon27	S1124N	chr2	212251688	C	T	0.1542
36	<i>EYA2</i>	nonsynonymous SNV	NM_005244	exon5	H138D	chr20	45644933	C	G	0.4656
36	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon12	R364C	chr20	39728810	C	T	0.1377
36	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon16	H970Y	chr3	134977915	C	T	0.1538
36	<i>KLHL6</i>	nonsynonymous SNV	NM_130446	exon3	A168V	chr3	183226253	G	A	0.1436
36	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0365
36	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0905
36	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0362
36	<i>ARID1B</i>	stopgain SNV	NM_020732	exon12	E1109X	chr6	157502292	G	T	0.2346
36	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon23	M1415I	chr6	32168678	C	A	0.1748
36	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon54	R2840H	chr6	51640641	C	T	0.3895
36	<i>ELMO1</i>	nonsynonymous SNV	NM_001206480	exon12	R284W	chr7	37253044	G	A	0.2041
36	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon6	R839H	chr7	106520088	G	A	0.1296
36	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0374
36	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon7	N294S	chr8	38282076	T	C	0.1551
36	<i>FANCC</i>	stopgain SNV	NM_000136	exon15	R555X	chr9	97864003	G	A	0.1641
36	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon33	R1515Q	chrX	70352989	G	A	0.2803
36	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon35	M1916I	chrX	41075568	G	T	0.0812
37	<i>ABL2</i>	nonsynonymous SNV	NM_001136000	exon5	D264N	chr1	179090855	C	T	0.0787
37	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	R147H	chr1	22413313	G	A	0.0247
37	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon2	S29T	chr1	226252138	G	C	0.0313

37	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon4	T108N	chr1	226259092	C	A	0.0415
37	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R1170Q	chr1	16256244	G	A	0.0638
37	<i>CHUK</i>	nonsynonymous SNV	NM_001278	exon1	P14H	chr10	101989249	G	T	0.0987
37	<i>CBL</i>	nonsynonymous SNV	NM_005188	exon4	R206Q	chr11	119144604	G	A	0.0734
37	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	R1807W	chr11	92531598	C	T	0.0615
37	<i>ARID2</i>	upstream	.	.	.	chr12	46123588	T	A	0.4641
37	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon6	P252H	chr12	6710499	G	T	0.0476
37	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon25	K829N	chr12	50037688	G	T	0.0517
37	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0310
37	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	D487E	chr12	112926841	T	A	0.0496
37	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	R527H	chr12	112926960	G	A	0.0363
37	<i>SMARCD1</i>	nonsynonymous SNV	NM_003076	exon9	P358T	chr12	50484312	C	A	0.1301
37	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon14	Y589C	chr13	28608290	T	C	0.0780
37	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon1	P2L	chr13	28674643	G	A	0.2294
37	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A293V	chr13	110437523	G	A	0.1008
37	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R832H	chr13	110435906	C	T	0.1064
37	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon28	A1129T	chr13	25017850	C	T	0.0301
37	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0370
37	<i>BCL2A1</i>	stopgain SNV	NM_001114735	exon1	E5X	chr15	80263449	C	A	0.4483
37	<i>FANCI</i>	nonsynonymous SNV	NM_001113378	exon12	S333L	chr15	89817421	C	T	0.0847
37	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon4	S153A	chr15	49776573	T	G	0.0479
37	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon27	H1487Q	chr16	3786750	G	C	0.1412
37	<i>CREBBP</i>	stopgain SNV	NM_004380	exon5	R424X	chr16	3842042	G	A	0.1062
37	<i>CTCF</i>	nonsynonymous SNV	NM_006565	exon4	H312R	chr16	67646007	A	G	0.0465
37	<i>GRIN2A</i>	stopgain SNV	NM_000833	exon14	Q1269X	chr16	9857596	G	A	0.0563
37	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon18	V734I	chr17	37879905	G	A	0.1170
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0429



37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	V325A	chr17	29527525	T	C	0.0340
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0412
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	K505E	chr17	29541589	A	G	0.0450
37	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0276
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0287
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0550
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0426
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	R720W	chr17	29553609	C	T	0.0238
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0281
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0535
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0543
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0348
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0268
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0463
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0476
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	R1000C	chr17	29557285	C	T	0.0312
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0453
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	S1030L	chr17	29557376	C	T	0.0422
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0422
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	V1120A	chr17	29559762	T	C	0.0326
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0415
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0353
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0315
37	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0399
37	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon5	V193I	chr17	78704429	G	A	0.1509
37	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon6	Y205N	chr17	7578236	A	T	0.0720
37	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon5	Y126C	chr17	7578553	T	C	0.1287

37	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon23	A826T	chr18	39644747	G	A	0.0506
37	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0739
37	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	S479N	chr19	42794075	G	A	0.0324
37	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0488
37	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon22	L879F	chr19	2217861	C	T	0.1150
37	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	A1364V	chr19	15288648	G	A	0.1705
37	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0429
37	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0301
37	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0448
37	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0297
37	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon6	P180S	chr22	29678503	C	T	0.0283
37	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0447
37	<i>SMARCB1</i>	nonsynonymous SNV	NM_003073	exon2	Y35H	chr22	24133952	T	C	0.1199
37	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon3	D243G	chr3	96706451	A	G	0.1843
37	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon3	A122T	chr3	134670453	G	A	0.0968
37	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	A249V	chr3	138664819	G	A	0.1355
37	<i>GSK3B</i>	stopgain SNV	NM_002093	exon9	G309X	chr3	119585460	C	A	0.0882
37	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon8	N457D	chr3	178928091	A	G	0.1799
37	<i>RAF1</i>	stopgain SNV	NM_002880	exon6	R218X	chr3	12647728	G	A	0.0769
37	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon2	A112T	chr3	77147437	G	A	0.0461
37	<i>SOX2</i>	nonsynonymous SNV	NM_003106	exon1	G241C	chr3	181430869	G	T	0.0545
37	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon18	M861I	chr5	138269640	G	A	0.0308
37	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon3	Q51R	chr5	176517451	A	G	0.0390
37	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0998
37	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0273
37	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142W	chr5	170819785	C	T	0.0340
37	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0472

37	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	S207P	chr5	170827879	T	C	0.0352
37	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon8	Q219K	chr5	38982067	G	T	0.1484
37	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon8	P334L	chr7	140494247	G	A	0.0304
37	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon7	E473A	chr7	100416146	T	G	0.0927
37	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon6	L341P	chr7	100417454	A	G	0.0515
37	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0264
37	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0386
37	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0315
37	<i>MYC</i>	stopgain SNV	NM_002467	exon3	K412X	chr8	128753073	A	T	0.0695
37	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon11	L318P	chr8	92999158	A	G	0.1086
37	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon19	R685H	chr8	87460432	G	A	0.0502
37	<i>PTPRD</i>	stopgain SNV	NM_001040712	exon8	E287X	chr9	8521370	C	A	0.0455
37	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon10	Q1434R	chrX	39921417	T	C	0.0698
37	<i>PAK3</i>	nonsynonymous SNV	NM_002578	exon9	E182D	chrX	110406220	A	T	0.0838
37	<i>SMARCA1</i>	nonsynonymous SNV	NM_003069	exon15	A608T	chrX	128624163	C	T	0.0873
37	<i>ZRSR2</i>	nonsynonymous SNV	NM_005089	exon7	G150S	chrX	15827332	G	A	0.0430
38	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0558
38	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon4	T76M	chr1	206647813	C	T	0.3535
38	<i>TNKS2</i>	nonsynonymous SNV	NM_025235	exon24	R1027Q	chr10	93617273	G	A	0.0323
38	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon17	D868G	chr11	108138034	A	G	0.1612
38	<i>FGF19</i>	nonsynonymous SNV	NM_005117	exon1	G4R	chr11	69518635	C	T	0.1798
38	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon5	R143C	chr12	46211461	C	T	0.1233
38	<i>SH2B3</i>	nonsynonymous SNV	NM_005475	exon7	A452T	chr12	111885577	G	A	0.1168
38	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon8	R739C	chr12	115109663	G	A	0.1550
38	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0364
38	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon9	R432Q	chr17	38512384	G	A	0.1751
38	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon2	V44A	chr18	25727678	A	G	0.4873

38	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon12	P458H	chr18	39595487	C	A	0.1696
38	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon3	Q123R	chr19	15379771	T	C	0.0751
38	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon6	A176T	chr19	2193720	G	A	0.1390
38	<i>DOT1L</i>	splicing	NM_032482	exon25	c.3596+2C>T	chr19	2223487	C	T	0.1320
38	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon12	R380W	chr19	45864881	G	A	0.1225
38	<i>MEF2B</i>	nonsynonymous SNV	NM_001145785	exon9	A356T	chr19	19256647	C	T	0.0558
38	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon19	C987Y	chr2	141709437	C	T	0.0769
38	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon2	P59H	chr2	142567877	G	T	0.1608
38	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon8	R220H	chr20	36024670	G	A	0.0267
38	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon5	A313V	chr3	187447255	G	A	0.0871
38	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon1	L10I	chr3	134514501	C	A	0.1444
38	<i>KDR</i>	nonsynonymous SNV	NM_002253	exon3	T98A	chr4	55984837	T	C	0.1500
38	<i>KIT</i>	nonsynonymous SNV	NM_000222	exon9	V459A	chr4	55592052	T	C	0.1700
38	<i>CHD1</i>	nonsynonymous SNV	NM_001270	exon8	R393H	chr5	98234376	C	T	0.0718
38	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon12	R551Q	chr5	138260304	G	A	0.1295
38	<i>DOCK2</i>	stopgain SNV	NM_004946	exon9	R260X	chr5	169116272	C	T	0.1678
38	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon1	A3T	chr5	56111407	G	A	0.1615
38	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0395
38	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	V451M	chr7	50468116	G	A	0.0580
38	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	R184H	chr7	106508557	G	A	0.0974
38	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon23	R1015W	chr7	98524857	C	T	0.1426
38	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon14	V444I	chr7	98506565	G	A	0.1229
38	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon15	E800K	chr8	41800349	C	T	0.0250
38	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon34	T2132M	chr9	139391796	G	A	0.1440
38	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon18	R1025H	chr9	98220389	C	T	0.1646
39	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0444
39	<i>GATA3</i>	nonsynonymous SNV	NM_002051	exon6	R366Q	chr10	8115751	G	A	0.0446

39	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon6	S179I	chr10	89711918	G	T	0.1491
39	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon7	W266L	chr11	108115649	G	T	0.0495
39	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon8	V653M	chr11	106579365	C	T	0.1502
39	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon13	M454R	chr11	94192713	A	C	0.0405
39	<i>ARID2</i>	stopgain SNV	NM_152641	exon11	Q484X	chr12	46233231	C	T	0.1791
39	<i>IGF1</i>	nonsynonymous SNV	NM_001111283	exon3	G80S	chr12	102813451	C	T	0.2028
39	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R324H	chr13	110437430	C	T	0.0387
39	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon33	M1653L	chr13	25000626	T	G	0.0504
39	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon19	V726M	chr15	88423659	C	T	0.1793
39	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon14	R1376C	chr16	9857275	G	A	0.2146
39	<i>TRAF7</i>	splicing	NM_032271	exon12	c.1087-1G>T	chr16	2223788	G	T	0.1602
39	<i>AURKB</i>	nonsynonymous SNV	NM_004217	exon9	V334G	chr17	8108223	A	C	0.1283
39	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon30	R1365Q	chr17	15974781	C	T	0.1386
39	<i>NCOR1</i>	stopgain SNV	NM_006311	exon18	R672X	chr17	16021243	G	A	0.0474
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0606
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0461
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	K505E	chr17	29541589	A	G	0.0460
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0419
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0512
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	Y735S	chr17	29553655	A	C	0.0451
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0566
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0503
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0570
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0401
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0557
39	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1482M	chr17	29587402	A	G	0.0511
39	<i>SRSF2</i>	nonsynonymous SNV	NM_003016	exon2	P209L	chr17	74732283	G	A	0.1361

39	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R190C	chr19	42791587	C	T	0.0400
39	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	P178R	chr19	42791552	C	G	0.0655
39	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon21	K972N	chr19	17942099	C	A	0.0496
39	<i>BARD1</i>	nonsynonymous SNV	NM_000465	exon10	K650R	chr2	215595187	T	C	0.1399
39	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon4	R100Q	chr2	209113208	C	T	0.0433
39	<i>PDK1</i>	nonsynonymous SNV	NM_002610	exon9	I328T	chr2	173451043	T	C	0.0530
39	<i>PDK1</i>	nonsynonymous SNV	NM_002610	exon9	N333I	chr2	173451058	A	T	0.0570
39	<i>PDK1</i>	nonsynonymous SNV	NM_002610	exon9	Y336C	chr2	173451067	A	G	0.0526
39	<i>PAK7</i>	nonsynonymous SNV	NM_020341	exon6	G456R	chr20	9546656	C	T	0.1544
39	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	Q298R	chr22	39387506	A	G	0.5231
39	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0511
39	<i>EWSR1</i>	stopgain SNV	NM_005243	exon11	Q366X	chr22	29688527	C	T	0.0751
39	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon13	R461H	chr22	29693904	G	A	0.1584
39	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon24	R735Q	chr3	10107113	G	A	0.1174
39	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon21	A1035V	chr3	178952049	C	T	0.0639
39	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon11	A395V	chr3	12633216	G	A	0.0847
39	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon14	A706T	chr5	180048157	C	T	0.0278
39	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0408
39	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	A144T	chr5	170819791	G	A	0.0286
39	<i>PDGFRB</i>	nonsynonymous SNV	NM_002609	exon7	R334Q	chr5	149512439	C	T	0.0558
39	<i>BRAF</i>	stopgain SNV	NM_004333	exon11	W476X	chr7	140481381	C	T	0.0630
39	<i>EPHB6</i>	nonsynonymous SNV	NM_004445	exon7	E198D	chr7	142562152	G	T	0.0367
39	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon5	E183G	chr7	81381513	T	C	0.0476
39	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0380
39	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon12	A754T	chr7	128852188	G	A	0.1123
39	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon6	R454Q	chr8	38187116	C	T	0.0412
39	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon2	A121V	chr9	21971039	G	A	0.0228

39	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon15	R557W	chrX	47430394	C	T	0.3131
39	<i>ATRX</i>	stopgain SNV	NM_000489	exon35	Q2416X	chrX	76764062	G	A	0.2830
39	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon8	Q1248E	chrX	39922864	G	C	0.0882
39	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon43	L2411F	chrX	41088832	C	T	0.0840
40	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	E1183K	chr1	16256282	G	A	0.0272
40	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R2784Q	chr1	16261086	G	A	0.0640
40	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	T2037M	chr11	92532289	C	T	0.0903
40	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon23	G4218S	chr11	92616274	G	A	0.0494
40	<i>CHD4</i>	stopgain SNV	NM_001273	exon29	R1421X	chr12	6691890	G	A	0.0593
40	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon5	R323Q	chr14	102551696	C	T	0.0302
40	<i>LTK</i>	splicing	NM_002344	exon10	c.1249+1G>A	chr15	41800266	C	T	0.0759
40	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	R623W	chr16	66436584	C	T	0.0762
40	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon13	A825V	chr16	9862829	G	A	0.0654
40	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon40	S2120F	chr17	15960861	G	A	0.5358
40	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0315
40	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0304
40	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0338
40	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0261
40	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	P1421L	chr17	29585450	C	T	0.0284
40	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon9	P371L	chr17	78796999	C	T	0.0447
40	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0339
40	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	S171N	chr2	30143014	C	T	0.4800
40	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon13	R524H	chr2	212543828	C	T	0.0470
40	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon4	R577C	chr2	48026851	C	T	0.4414
40	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0389
40	<i>CTNNB1</i>	stopgain SNV	NM_001904	exon4	R90X	chr3	41266471	C	T	0.0548
40	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon27	R1387C	chr3	78666908	G	A	0.0550

40	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0889
40	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0286
40	<i>NPM1</i>	stopgain SNV	NM_002520	exon3	Q84X	chr5	170818420	C	T	0.0275
40	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon8	N224D	chr5	38982052	T	C	0.0366
40	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	S49F	chr6	157099209	C	T	0.4365
40	<i>PKHD1</i>	splicing	NM_138694	exon54	c.8303-1G>A	chr6	51656172	C	T	0.0641
40	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon1	P25L	chr7	140624430	G	A	0.5818
40	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon7	R216Q	chr7	148524337	C	T	0.0742
40	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	R328C	chr7	27147884	G	A	0.1417
40	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	S364L	chr7	50467856	C	T	0.1225
40	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0242
40	<i>SEMA3E</i>	stopgain SNV	NM_012431	exon6	E224X	chr7	83037684	C	A	0.0432
40	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon7	I445T	chr7	128848669	T	C	0.0797
40	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon11	H1468Y	chrX	39916499	G	A	0.0649
40	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon3	R740H	chrX	129148967	G	A	0.0441
40	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon24	P1206H	chrX	41045828	C	A	0.0267
41	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	G15S	chr1	22405014	G	A	0.0262
41	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon2	R9C	chr1	226252077	C	T	0.2677
41	<i>NTRK1</i>	nonsynonymous SNV	NM_001007792	exon9	A347V	chr1	156843704	C	T	0.2420
41	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon6	Y177H	chr10	89711911	T	C	0.2450
41	<i>CHEK1</i>	nonsynonymous SNV	NM_001114121	exon9	P287L	chr11	125513732	C	T	0.2478
41	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	R2747Q	chr11	92534419	G	A	0.2561
41	<i>FGF3</i>	nonsynonymous SNV	NM_005247	exon3	T169I	chr11	69625287	G	A	0.0121
41	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	A438T	chr11	100998490	C	T	0.0183
41	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon9	R494C	chr12	52385742	C	T	0.0261
41	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0201
41	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0208



41	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon15	M586I	chr12	112942544	G	C	0.0247
41	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	S1288N	chr13	25009416	C	T	0.0232
41	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	D778N	chr14	102548571	C	T	0.0241
41	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A740V	chr14	102548684	G	A	0.0163
41	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0237
41	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0246
41	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon1	A16V	chr14	36989288	G	A	0.2760
41	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon3	D300N	chr15	99434811	G	A	0.2619
41	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon7	A289V	chr16	68845620	C	T	0.2626
41	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	R681Q	chr16	66436759	G	A	0.2706
41	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon14	R458Q	chr16	2112984	G	A	0.2626
41	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon17	R678Q	chr17	37879658	G	A	0.2578
41	<i>GNA13</i>	nonsynonymous SNV	NM_006572	exon1	M1V	chr17	63052711	T	C	0.0142
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0321
41	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0611
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0258
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon11	R416Q	chr17	29528490	G	A	0.0364
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0291
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	K505E	chr17	29541589	A	G	0.0372
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0356
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0188
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0302
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0221
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0498
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0494
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	N793S	chr17	29554593	A	G	0.0231
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0600

41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0297
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0227
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0248
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0274
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0353
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0247
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0255
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0299
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0255
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	D1047V	chr17	29557886	A	T	0.0213
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	L1141R	chr17	29559825	T	G	0.0339
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	T1184I	chr17	29560074	C	T	0.0188
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0332
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0378
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	M1271I	chr17	29562733	G	T	0.0159
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0581
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0230
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0388
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0435
41	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	T1574I	chr17	29588872	C	T	0.0458
41	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon16	V596M	chr17	78857716	G	A	0.2672
41	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon20	T768A	chr17	78867566	A	G	0.0141
41	<i>SOX9</i>	nonsynonymous SNV	NM_000346	exon3	H427Y	chr17	70120277	C	T	0.2740
41	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0277
41	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon11	R292C	chr19	2207590	C	T	0.2296
41	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon20	M1107I	chr19	15290889	C	T	0.2233
41	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon10	R532L	chr19	15298703	C	A	0.2442

41	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon8	A399T	chr19	15299983	C	T	0.2465
41	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon2	R10H	chr19	18266718	G	A	0.2829
41	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon20	E882K	chr19	11132428	G	A	0.2672
41	<i>CASP8</i>	stoploss SNV	NM_001228	exon10	X497R	chr2	202151315	T	C	0.2226
41	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	A399T	chr20	54945231	C	T	0.0201
41	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon8	Y320C	chr20	54945611	T	C	0.0421
41	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon17	R590H	chr20	39744979	G	A	0.0441
41	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0347
41	<i>ZNF217</i>	nonsynonymous SNV	NM_006526	exon3	P651L	chr20	52193351	G	A	0.2486
41	<i>BACH1</i>	nonsynonymous SNV	NM_001186	exon3	D503N	chr21	30699652	G	A	0.2788
41	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0225
41	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0278
41	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0327
41	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0421
41	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0422
41	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon28	T896M	chr3	10115018	C	T	0.0269
41	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	A369T	chr3	138664460	C	T	0.3216
41	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon7	P470H	chr3	128199896	G	T	0.0442
41	<i>GSK3B</i>	nonsynonymous SNV	NM_002093	exon8	A298T	chr3	119595277	C	T	0.0292
41	<i>MLH1</i>	nonsynonymous SNV	NM_000249	exon18	S695L	chr3	37090489	C	T	0.0452
41	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon24	S1255P	chr3	52598103	A	G	0.4372
41	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0321
41	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0682
41	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0320
41	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon30	V1954G	chr6	32163365	A	C	0.7458
41	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon26	G1054V	chr7	55269474	G	T	0.2354
41	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon1	E18K	chr7	100424601	C	T	0.3366

41	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0178
41	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0249
41	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon47	A2309V	chr7	98562369	C	T	0.2332
41	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0383
41	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	A326T	chr8	87424018	G	A	0.0331
41	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon3	R171H	chr9	133730389	G	A	0.2452
41	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	Q237R	chr9	80409404	T	C	0.0324
41	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon21	Q1134R	chr9	139402516	T	C	0.4949
41	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon4	A150T	chr9	139417596	C	T	0.2151
41	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon1	A42V	chr9	98270519	G	A	0.0199
41	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon9	A364T	chrX	76939658	C	T	0.3959
41	<i>ZRSR2</i>	nonsynonymous SNV	NM_005089	exon11	R451H	chrX	15841268	G	A	0.5450
42	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0250
42	<i>HRAS</i>	nonsynonymous SNV	NM_005343	exon3	D69E	chr11	533849	G	C	0.0914
42	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	P241S	chr11	100999081	G	A	0.0290
42	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon2	G59A	chr12	46123910	G	C	0.3925
42	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0151
42	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon30	V1203I	chr13	25016043	C	T	0.0150
42	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon14	S565P	chr13	25051935	A	G	0.0334
42	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A740V	chr14	102548684	G	A	0.0151
42	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0144
42	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0313
42	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0352
42	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon4	S153A	chr15	49776573	T	G	0.0333
42	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0320
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0120
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	A320S	chr17	29527509	G	T	0.0183

42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	V325A	chr17	29527525	T	C	0.0161
42	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0149
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0131
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0201
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0208
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0172
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0195
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0222
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0211
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0136
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0198
42	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0153
42	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	S1567X	chr17	29588851	C	A	0.0148
42	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0204
42	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	V498I	chr22	29091127	C	T	0.0184
42	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon15	D400E	chr3	10088329	C	A	0.0172
42	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0146
42	<i>KIT</i>	nonsynonymous SNV	NM_000222	exon20	T916I	chr4	55603391	C	T	0.4003
42	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0230
42	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0364
42	<i>SKP2</i>	nonsynonymous SNV	NM_005983	exon6	F246C	chr5	36170511	T	G	0.5053
42	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon4	C195G	chr7	140508717	A	C	0.0182
42	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0263
42	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	T144P	chr7	6441583	A	C	0.0168
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	V183I	chr8	87414255	G	A	0.0122
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0117
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon10	D360Y	chr8	87437468	G	T	0.0132

42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon18	F657Y	chr8	87454979	T	A	0.0167
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	R764H	chr8	87464805	G	A	0.0181
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon23	R845L	chr8	87473487	G	T	0.0212
42	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon23	P857S	chr8	87473522	C	T	0.0196
42	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon3	V121G	chr9	80430646	A	C	0.0196
43	<i>CDC73</i>	nonsynonymous SNV	NM_024529	exon9	R281H	chr1	193119447	G	A	0.0361
43	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon15	R668H	chr1	162745588	G	A	0.0467
43	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon9	T331M	chr1	206651682	C	T	0.0340
43	<i>IKBKE</i>	stopgain SNV	NM_014002	exon20	R657X	chr1	206666635	C	T	0.0259
43	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon11	R514H	chr1	65321299	C	T	0.0309
43	<i>MDM4</i>	nonsynonymous SNV	NM_002393	exon4	H54Y	chr1	204499818	C	T	0.0227
43	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon38	A1779T	chr1	11193166	C	T	0.0152
43	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon36	R1709H	chr1	11199365	C	T	0.0375
43	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon33	R1568S	chr1	11205085	C	A	0.0412
43	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon12	D666Y	chr1	11298465	C	A	0.0242
43	<i>MUTYH</i>	nonsynonymous SNV	NM_012222	exon13	S403F	chr1	45797198	G	A	0.0278
43	<i>MUTYH</i>	nonsynonymous SNV	NM_012222	exon8	A224T	chr1	45798257	C	T	0.0316
43	<i>NOTCH2</i>	nonsynonymous SNV	NM_024408	exon20	A1094V	chr1	120480536	G	A	0.0329
43	<i>NTRK1</i>	nonsynonymous SNV	NM_001007792	exon16	G688S	chr1	156849914	G	A	0.0304
43	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon15	A768V	chr1	45293142	G	A	0.0285
43	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon2	R37C	chr1	45307675	G	A	0.0274
43	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon8	R535Q	chr1	16245981	G	A	0.0198
43	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R1013H	chr1	16255773	G	A	0.0372
43	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	S2789P	chr1	16261100	T	C	0.0276
43	<i>FGFR2</i>	nonsynonymous SNV	NM_022970	exon5	A171V	chr10	123310916	G	A	0.0193
43	<i>FGFR2</i>	nonsynonymous SNV	NM_022970	exon3	R61C	chr10	123325147	G	A	0.0312
43	<i>GATA3</i>	nonsynonymous SNV	NM_002051	exon6	A441T	chr10	8115975	G	A	0.0423

43	<i>RET</i>	nonsynonymous SNV	NM_020975	exon2	R79Q	chr10	43596069	G	A	0.0359
43	<i>RET</i>	nonsynonymous SNV	NM_020975	exon9	R587W	chr10	43608411	C	T	0.0238
43	<i>RET</i>	nonsynonymous SNV	NM_020975	exon12	L760M	chr10	43612173	C	A	0.0270
43	<i>RET</i>	nonsynonymous SNV	NM_020975	exon14	R813W	chr10	43615023	C	T	0.0398
43	<i>RET</i>	nonsynonymous SNV	NM_020975	exon18	P996L	chr10	43620378	C	T	0.0385
43	<i>SUFU</i>	nonsynonymous SNV	NM_016169	exon10	A416T	chr10	104377135	G	A	0.0169
43	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon10	R457Q	chr11	108121562	G	A	0.0238
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon1	R557H	chr11	92086948	G	A	0.0196
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon4	A1289T	chr11	92495217	G	A	0.0310
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon13	A3257D	chr11	92565076	C	A	0.0468
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon18	L3722M	chr11	92577697	C	A	0.0111
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon21	T3973M	chr11	92600166	C	T	0.0319
43	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon21	R3974W	chr11	92600168	C	T	0.0200
43	<i>FGF3</i>	nonsynonymous SNV	NM_005247	exon3	A149T	chr11	69625348	C	T	0.0238
43	<i>FGF3</i>	nonsynonymous SNV	NM_005247	exon2	L91F	chr11	69631141	G	A	0.0117
43	<i>FGF4</i>	nonsynonymous SNV	NM_002007	exon1	G93S	chr11	69589576	C	T	0.0225
43	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon1	P43L	chr11	106888654	G	A	0.0299
43	<i>MRE11A</i>	splicing	NM_005590	exon8	c.659+2T>C	chr11	94209453	A	G	0.0240
43	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon10	T527M	chr12	52387833	C	T	0.0373
43	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon5	R143H	chr12	46211462	G	A	0.0508
43	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon22	R1095C	chr12	6700689	G	A	0.0679
43	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon12	R572Q	chr12	6707237	C	T	0.0310
43	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon35	R1695C	chr12	6687611	G	A	0.0403
43	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon15	R738C	chr12	6703726	G	A	0.0521
43	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon8	S325N	chr12	6709789	C	T	0.0379
43	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon14	A544T	chr12	56487899	G	A	0.0424
43	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon15	R611W	chr12	56488312	C	T	0.0525

43	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon25	A1030T	chr12	56493772	G	A	0.0447
43	<i>HNF1A</i>	nonsynonymous SNV	NM_000545	exon9	G554E	chr12	121437323	G	A	0.0373
43	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon13	K369N	chr12	50028987	G	T	0.0263
43	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon8	A676T	chr12	115109852	C	T	0.0475
43	<i>DIS3</i>	nonsynonymous SNV	NM_014953	exon20	V907I	chr13	73334741	C	T	0.0271
43	<i>FGF14</i>	nonsynonymous SNV	NM_004115	exon1	R23Q	chr13	102568928	C	T	0.0347
43	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon29	S1246I	chr13	28880893	C	A	0.0268
43	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon10	F418S	chr13	28611378	A	G	0.0364
43	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A853T	chr13	110435844	C	T	0.0400
43	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon28	A1129T	chr13	25017850	C	T	0.0163
43	<i>BCL2L2</i>	nonsynonymous SNV	NM_004050	exon3	R11W	chr14	23777007	C	T	0.0312
43	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon14	R899M	chr14	45644653	G	T	0.0268
43	<i>FOXA1</i>	nonsynonymous SNV	NM_004496	exon2	K267T	chr14	38061189	T	G	0.0389
43	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon2	A103V	chr14	36988345	G	A	0.0319
43	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0271
43	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon2	G108S	chr15	99251018	G	A	0.0264
43	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon2	T79M	chr15	99250932	C	T	0.0342
43	<i>LTK</i>	nonsynonymous SNV	NM_002344	exon18	P751H	chr15	41796707	G	T	0.0255
43	<i>LTK</i>	nonsynonymous SNV	NM_002344	exon5	A191V	chr15	41804100	G	A	0.0344
43	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon7	R169C	chr15	88680752	G	A	0.0271
43	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon10	A804T	chr16	339492	C	T	0.0291
43	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon9	T457A	chr16	66431893	A	G	0.0200
43	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon31	R1774C	chr16	3779728	G	A	0.0261
43	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon18	V1157I	chr16	3807950	C	T	0.0204
43	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon43	A1434T	chr16	89805077	C	T	0.0266
43	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon14	L1178F	chr16	9857869	G	A	0.0205
43	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon3	G97S	chr16	10273980	C	T	0.0331



43	<i>NUP93</i>	nonsynonymous SNV	NM_014669	exon11	A389V	chr16	56865834	C	T	0.0155
43	<i>NUP93</i>	nonsynonymous SNV	NM_014669	exon18	P648T	chr16	56871562	C	A	0.0149
43	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon2	R8H	chr16	2213944	G	A	0.0337
43	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon8	R189W	chr16	2222281	C	T	0.0119
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon2	L18M	chr16	2098668	C	A	0.0224
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon12	V384I	chr16	2111902	G	A	0.0313
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon22	A822V	chr16	2124310	C	T	0.0330
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon24	V909A	chr16	2126155	T	C	0.0237
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon26	P952S	chr16	2127615	C	T	0.0372
43	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon29	A1108V	chr16	2129596	C	T	0.0253
43	<i>ALOX12B</i>	nonsynonymous SNV	NM_001139	exon9	A397T	chr17	7980394	C	T	0.0267
43	<i>ALOX12B</i>	nonsynonymous SNV	NM_001139	exon2	R73W	chr17	7989469	G	A	0.0297
43	<i>AURKB</i>	nonsynonymous SNV	NM_004217	exon5	R123C	chr17	8110525	G	A	0.0234
43	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon10	N682S	chr17	41245503	T	C	0.0427
43	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon14	A678S	chr17	59853827	C	A	0.0354
43	<i>CD79B</i>	nonsynonymous SNV	NM_000626	exon1	V15A	chr17	62009578	A	G	0.0330
43	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon4	R157Q	chr17	37865601	G	A	0.0271
43	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon11	R432W	chr17	37871770	C	T	0.0256
43	<i>ETV4</i>	splicing	NM_001079675	exon10	c.886+1G>A	chr17	41607474	C	T	0.0265
43	<i>GNA13</i>	nonsynonymous SNV	NM_006572	exon4	D294Y	chr17	63010629	C	A	0.0417
43	<i>GNA13</i>	nonsynonymous SNV	NM_006572	exon2	W110R	chr17	63049802	A	G	0.0393
43	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon27	P1191S	chr17	15978947	G	A	0.0195
43	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon16	I554K	chr17	16024557	A	T	0.0338
43	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0167
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0216
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0327
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0178

43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0199
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0164
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0251
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0232
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0437
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0256
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0203
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0189
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1540S	chr17	29588769	G	T	0.0133
43	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0191
43	<i>SPOP</i>	nonsynonymous SNV	NM_001007226	exon6	S80N	chr17	47696709	C	T	0.0257
43	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon3	R207W	chr18	60795959	G	A	0.0216
43	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	G54R	chr18	60985740	C	T	0.0329
43	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	A4T	chr18	60985890	C	T	0.0170
43	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon14	V520I	chr18	39607480	G	A	0.0282
43	<i>SETBP1</i>	stopgain SNV	NM_015559	exon4	R625X	chr18	42531178	C	T	0.0281
43	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon4	R1146Q	chr18	42532742	G	A	0.0496
43	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon10	R669C	chr19	15366150	G	A	0.0208
43	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon19	P1485L	chr19	42798882	C	T	0.0162
43	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon11	A928T	chr19	42795793	G	A	0.0304
43	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon24	R746H	chr19	10262102	C	T	0.0364
43	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon24	A711T	chr19	10262208	C	T	0.0263
43	<i>DNMT1</i>	stopgain SNV	NM_001130823	exon21	R568X	chr19	10265392	G	A	0.0365
43	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon11	R343W	chr19	45867092	G	A	0.0350
43	<i>KEAP1</i>	nonsynonymous SNV	NM_203500	exon4	A487S	chr19	10600396	C	A	0.4964
43	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon33	R2150C	chr19	15271991	G	A	0.0274
43	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	A1356V	chr19	15288672	G	A	0.0667

43	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon19	R1031H	chr19	15291542	C	T	0.0303
43	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon13	R571H	chr19	18278092	G	A	0.0310
43	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon16	R717C	chr19	18280066	C	T	0.0188
43	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon6	R249C	chr19	52716301	C	T	0.0340
43	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon21	R973Q	chr19	11134252	G	A	0.0274
43	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon30	R1336H	chr19	11145645	G	A	0.0320
43	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon16	A747V	chr19	11121173	C	T	0.0257
43	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon27	R1203H	chr19	11144027	G	A	0.0105
43	<i>U2AF2</i>	nonsynonymous SNV	NM_007279	exon8	D256N	chr19	56179896	G	A	0.0242
43	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	R48H	chr2	30143383	C	T	0.0370
43	<i>DNMT3A</i>	stopgain SNV	NM_175629	exon19	R771X	chr2	25463182	G	A	0.0230
43	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon62	H3286R	chr2	141214130	T	C	0.0296
43	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon30	R1661H	chr2	141598619	C	T	0.0461
43	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon4	R959H	chr2	48027998	G	A	0.0427
43	<i>ARFRP1</i>	nonsynonymous SNV	NM_003224	exon8	H192R	chr20	62331826	T	C	0.0308
43	<i>ARFRP1</i>	nonsynonymous SNV	NM_003224	exon8	R177C	chr20	62331872	G	A	0.0309
43	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon12	S1295N	chr20	31024399	G	A	0.0231
43	<i>BCL2L1</i>	nonsynonymous SNV	NM_001191	exon2	R103Q	chr20	30309714	C	T	0.0336
43	<i>EYA2</i>	nonsynonymous SNV	NM_005244	exon15	A495V	chr20	45811987	C	T	0.0363
43	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	R16H	chr20	57428367	G	A	0.0306
43	<i>NCOA3</i>	nonsynonymous SNV	NM_006534	exon6	L121S	chr20	46255750	T	C	0.0606
43	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon2	D102N	chr20	39788332	G	A	0.0228
43	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon17	R609H	chr20	39794860	G	A	0.0320
43	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon19	R748H	chr20	39795441	G	A	0.0276
43	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon24	A935T	chr20	39798904	G	A	0.0301
43	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon4	R16H	chr20	36012603	G	A	0.0346
43	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon10	E313D	chr20	36028597	G	T	0.0393

43	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	A352T	chr21	36164821	C	T	0.0358
43	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon1	R352C	chr22	23524201	C	T	0.0253
43	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon10	N775S	chr22	23627306	A	G	0.0260
43	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon15	R948C	chr22	23634787	C	T	0.0309
43	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0248
43	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	E493K	chr22	29091142	C	T	0.0151
43	<i>CRKL</i>	nonsynonymous SNV	NM_005207	exon2	P217S	chr22	21288404	C	T	0.0342
43	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon15	I997M	chr22	41548010	T	G	0.0343
43	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon9	R444H	chr22	30736229	C	T	0.0252
43	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon4	R191C	chr22	30741002	G	A	0.0390
43	<i>SF3A1</i>	nonsynonymous SNV	NM_005877	exon3	A112T	chr22	30742360	C	T	0.0214
43	<i>XBP1</i>	nonsynonymous SNV	NM_001079539	exon6	T242M	chr22	29191569	G	A	0.0396
43	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon12	T855A	chr3	142272552	T	C	0.0310
43	<i>BAP1</i>	splicing	NM_004656	exon12	c.1116+2T>C	chr3	52439124	A	G	0.0511
43	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon5	L97P	chr3	52442059	A	G	0.0335
43	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon5	R158Q	chr3	187447720	C	T	0.0288
43	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon7	K335T	chr3	41268766	A	C	0.0653
43	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon11	G575R	chr3	41277254	G	A	0.0317
43	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon1	P24L	chr3	89156969	C	T	0.0207
43	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon3	R337C	chr3	96706732	C	T	0.0288
43	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon7	E625K	chr3	97167553	G	A	0.0363
43	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon13	A797T	chr3	134960032	G	A	0.0462
43	<i>ETV5</i>	nonsynonymous SNV	NM_004454	exon3	P26H	chr3	185823470	G	T	0.0459
43	<i>GATA2</i>	nonsynonymous SNV	NM_001145661	exon4	R78H	chr3	128205208	C	T	0.0331
43	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon6	A321V	chr3	185165687	C	T	0.0319
43	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon4	A118V	chr3	12650802	G	A	0.0314
43	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon14	R635S	chr3	78717094	C	A	0.0326

43	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon13	R640C	chr3	77617532	C	T	0.0243
43	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon16	E827V	chr3	77629249	A	T	0.0214
43	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon24	R1295W	chr3	77684143	C	T	0.0352
43	<i>TGFBR2</i>	stopgain SNV	NM_001024847	exon5	Q443X	chr3	30713927	C	T	0.0284
43	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon3	E270K	chr4	66467461	C	T	0.0351
43	<i>FBXW7</i>	nonsynonymous SNV	NM_033632	exon10	R505H	chr4	153247288	C	T	0.0448
43	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon9	S402N	chr4	1806180	G	A	0.0353
43	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon18	D788N	chr4	1808924	G	A	0.0321
43	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon4	T134M	chr4	55129867	C	T	0.0682
43	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon15	S716I	chr4	55144673	G	T	0.0289
43	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	N2675S	chr5	112179369	A	G	0.0384
43	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon4	R150C	chr5	149459759	G	A	0.0149
43	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon17	S530P	chr5	169139156	T	C	0.0249
43	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon22	S750P	chr5	169145776	T	C	0.0355
43	<i>FGF10</i>	nonsynonymous SNV	NM_004465	exon2	V123I	chr5	44310591	C	T	0.0375
43	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon9	A374E	chr5	176520202	C	A	0.0347
43	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon20	A945T	chr5	180046038	C	T	0.0507
43	<i>IL7R</i>	nonsynonymous SNV	NM_002185	exon8	P347L	chr5	35876248	C	T	0.0360
43	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0203
43	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0364
43	<i>PDGFRB</i>	nonsynonymous SNV	NM_002609	exon12	R597Q	chr5	149505025	C	T	0.0297
43	<i>RICTOR</i>	nonsynonymous SNV	NM_152756	exon31	E1180K	chr5	38950412	C	T	0.0222
43	<i>TERT</i>	upstream	.	.	.	chr5	1295405	G	A	0.0335
43	<i>DAXX</i>	nonsynonymous SNV	NM_001350	exon3	R270H	chr6	33288743	C	T	0.0205
43	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon3	C250F	chr6	94120302	C	A	0.0832
43	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon1	A27V	chr6	94128980	G	A	0.0379
43	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon1	L19F	chr6	94129005	G	A	0.0325

43	<i>ESR1</i>	nonsynonymous SNV	NM_001122742	exon3	A70T	chr6	152129255	G	A	0.0508
43	<i>ESR1</i>	nonsynonymous SNV	NM_001122742	exon10	A571V	chr6	152420025	C	T	0.0245
43	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon4	V150A	chr6	160431753	T	C	0.0315
43	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon9	K377T	chr6	160454058	A	C	0.0388
43	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon16	A735T	chr6	160468342	G	A	0.0230
43	<i>IRF4</i>	nonsynonymous SNV	NM_002460	exon8	A370V	chr6	405027	C	T	0.0244
43	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon67	P3984T	chr6	51484154	G	T	0.0310
43	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon32	M1388I	chr6	51890444	C	T	0.0281
43	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	T359M	chr6	106553111	C	T	0.0311
43	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon12	C453Y	chr6	117710914	C	T	0.0309
43	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon5	A225T	chr6	138197171	G	A	0.0344
43	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon25	A1112V	chr7	2946402	G	A	0.0140
43	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon5	R157W	chr7	2984061	G	A	0.0232
43	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon5	G123C	chr7	2984163	C	A	0.0422
43	<i>CDK6</i>	nonsynonymous SNV	NM_001145306	exon8	C280Y	chr7	92244596	C	T	0.0327
43	<i>ELMO1</i>	nonsynonymous SNV	NM_001206480	exon17	R518C	chr7	36934508	G	A	0.0362
43	<i>EPHB6</i>	nonsynonymous SNV	NM_004445	exon7	A103V	chr7	142561866	C	T	0.0289
43	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon1	A25T	chr7	81399215	C	T	0.0296
43	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon3	R306H	chr7	41729612	C	T	0.0108
43	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon3	G316D	chr7	41729582	C	T	0.0234
43	<i>INHBA</i>	nonsynonymous SNV	NM_002192	exon3	R308C	chr7	41729607	G	A	0.0265
43	<i>MET</i>	nonsynonymous SNV	NM_000245	exon21	P1364L	chr7	116436096	C	T	0.0526
43	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	R273H	chr7	106508824	G	A	0.0304
43	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0141
43	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon17	R770M	chr7	82996921	C	A	0.0390
43	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon8	V296A	chr7	83035302	A	G	0.0402
43	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon7	S431I	chr7	128848627	G	T	0.0286

43	<i>SMO</i>	nonsynonymous SNV	NM_005631	exon8	R482C	chr7	128849216	C	T	0.0401
43	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon2	A2V	chr7	98478778	C	T	0.0250
43	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon21	R893C	chr7	98519430	C	T	0.0297
43	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon25	R1170W	chr7	98528370	C	T	0.0389
43	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon39	R1859C	chr7	98550922	C	T	0.0240
43	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon71	A3760T	chr7	98609141	G	A	0.0510
43	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon18	A1862V	chr8	41790153	G	A	0.0224
43	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon15	T536I	chr8	92972597	G	A	0.0203
43	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon10	A279V	chr8	93003941	G	A	0.0193
43	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon18	Y892C	chr8	9605565	A	G	0.0233
43	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0138
43	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	D333Y	chr8	87424039	G	T	0.0178
43	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	A560T	chr8	37556097	G	A	0.0251
43	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon11	R1040W	chr9	133760738	C	T	0.0385
43	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon6	A328T	chr9	136913309	C	T	0.0314
43	<i>FANCG</i>	nonsynonymous SNV	NM_004629	exon6	I221T	chr9	35077083	A	G	0.0511
43	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon2	A89V	chr9	80537132	G	A	0.0363
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon30	A1869T	chr9	139396233	C	T	0.0284
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon30	R1854C	chr9	139396278	G	A	0.0204
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon29	D1807N	chr9	139396506	C	T	0.0258
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon20	A1105V	chr9	139402695	G	A	0.0352
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon17	R902H	chr9	139405140	C	T	0.0440
43	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon3	P101S	chr9	139418271	G	A	0.0370
43	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon19	G649S	chr9	87570205	G	A	0.0266
43	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon19	T1097A	chr9	98218575	T	C	0.0128
43	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon3	G77V	chr9	8633439	C	A	0.0209
43	<i>SYK</i>	nonsynonymous SNV	NM_003177	exon9	Y348C	chr9	93636993	A	G	0.0406

43	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon15	G525D	chrX	47430299	G	A	0.0455
43	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon17	T663A	chrX	44928887	A	G	0.0631
43	<i>SMARCA1</i>	nonsynonymous SNV	NM_003069	exon23	R951H	chrX	128599675	C	T	0.0435
43	<i>TBX22</i>	nonsynonymous SNV	NM_001109878	exon2	A51T	chrX	79277919	G	A	0.0679
43	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon19	V927I	chrX	41029390	G	A	0.0692
44	<i>ARID1A</i>	stopgain SNV	NM_006015	exon8	Y823X	chr1	27089513	C	A	0.3070
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	G15S	chr1	22405014	G	A	0.0255
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	L20Q	chr1	22405030	T	A	0.0339
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0305
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	R120K	chr1	22413232	G	A	0.0165
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	L129P	chr1	22413259	T	C	0.0197
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	A130S	chr1	22413261	G	T	0.0139
44	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	A146V	chr1	22413310	C	T	0.0251
44	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon4	T108N	chr1	226259092	C	A	0.0275
44	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon36	D1790G	chr11	108173629	A	G	0.4885
44	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	S2423R	chr11	92533448	C	G	0.4289
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	L30S	chr12	112884154	T	C	0.0338
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G49R	chr12	112888129	G	A	0.0258
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0259
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	T108A	chr12	112888306	A	G	0.0490
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	R220H	chr12	112893770	G	A	0.0347
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0331
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	T337M	chr12	112915737	C	T	0.0212
44	<i>PTPN11</i>	stopgain SNV	NM_002834	exon9	R351X	chr12	112915778	C	T	0.0188
44	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R351Q	chr12	112915779	G	A	0.0210
44	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	N1275T	chr13	25009455	T	G	0.0353
44	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon16	N675S	chr13	25044054	T	C	0.0308



44	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon13	T408I	chr13	48951061	C	T	0.1024
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	M750V	chr14	102548655	T	C	0.0204
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon12	I820V	chr14	102548156	T	C	0.0909
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	D778N	chr14	102548571	C	T	0.0200
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A774T	chr14	102548583	C	T	0.0240
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	M747T	chr14	102548663	A	G	0.0236
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0303
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	R634G	chr14	102549592	G	C	0.0299
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	Q255H	chr14	102552225	C	A	0.0180
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	A243V	chr14	102552262	G	A	0.0334
44	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon3	S161L	chr14	102552600	G	A	0.0266
44	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon26	T1089S	chr15	93528756	C	G	0.0277
44	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0185
44	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon7	R262K	chr17	12016649	G	A	0.0259
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0489
44	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0364
44	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0333
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	V325A	chr17	29527525	T	C	0.0300
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0433
44	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0205
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0357
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	R711C	chr17	29553582	C	T	0.0163
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0533
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0269
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0265
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0407
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0597

44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0236
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894C	chr17	29556314	T	G	0.0220
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0333
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0259
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0434
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0441
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0262
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	T1184I	chr17	29560074	C	T	0.0270
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0349
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0276
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0487
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0366
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1499R	chr17	29587452	T	G	0.0391
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0370
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0343
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0412
44	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	V1609A	chr17	29592348	T	C	0.0403
44	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0473
44	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	S479N	chr19	42794075	G	A	0.0171
44	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0354
44	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon22	R1270H	chr19	7117407	C	T	0.3830
44	<i>NFE2L2</i>	nonsynonymous SNV	NM_006164	exon2	D29A	chr2	178098959	T	G	0.0638
44	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon8	Y320C	chr20	54945611	T	C	0.0265
44	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0412
44	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon21	E1161K	chr22	23656178	G	A	0.0222
44	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0443
44	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0348

44	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0440
44	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0463
44	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0206
44	<i>GSK3B</i>	nonsynonymous SNV	NM_002093	exon8	M284V	chr3	119595319	T	C	0.0371
44	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon3	L152V	chr3	77526630	C	G	0.0308
44	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon4	V204I	chr3	77530313	G	A	0.0578
44	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon19	R633C	chr4	20541128	C	T	0.1000
44	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon19	T833M	chr5	149435645	G	A	0.2709
44	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	H40R	chr5	170817115	A	G	0.0244
44	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0211
44	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon23	R783W	chr6	51913350	G	A	0.4728
44	<i>EZH2</i>	nonsynonymous SNV	NM_004456	exon18	R684C	chr7	148506462	G	A	0.0340
44	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0310
44	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0387
44	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon6	Q505E	chr8	38186964	G	C	0.0254
44	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	V183I	chr8	87414255	G	A	0.0266
44	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0301
44	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	A326T	chr8	87424018	G	A	0.0304
44	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon13	H477R	chr8	87443677	A	G	0.0350
44	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	E782G	chr8	87464859	A	G	0.0296
44	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon1	L63H	chr8	37553685	T	A	0.4171
44	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	Q237R	chr9	80409404	T	C	0.0522
44	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	V204F	chr9	80409504	C	A	0.0259
44	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon3	V25M	chr9	135804187	C	T	0.4444
45	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0309
45	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	R339H	chr1	118166506	G	A	0.5154
45	<i>MPL</i>	nonsynonymous SNV	NM_005373	exon7	P329H	chr1	43812121	C	A	0.1994

45	<i>RET</i>	nonsynonymous SNV	NM_020975	exon14	R844Q	chr10	43615117	G	A	0.1798
45	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon13	Q445P	chr11	94192740	T	G	0.0316
45	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon3	S128N	chr12	56478927	G	A	0.1917
45	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon20	S765N	chr12	56490848	G	A	0.0368
45	<i>FGF6</i>	nonsynonymous SNV	NM_020996	exon3	A182V	chr12	4543463	G	A	0.2222
45	<i>RAD52</i>	stopgain SNV	NM_134424	exon9	R278X	chr12	1025543	G	A	0.0176
45	<i>RAD52</i>	nonsynonymous SNV	NM_134424	exon8	Y205C	chr12	1025916	T	C	0.2795
45	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon7	T486M	chr12	115112283	G	A	0.2380
45	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	Q1269P	chr13	110434595	T	G	0.5154
45	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	T314M	chr13	110437460	G	A	0.1983
45	<i>AKT1</i>	nonsynonymous SNV	NM_001014431	exon13	P424S	chr14	105237175	G	A	0.2600
45	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A740V	chr14	102548684	G	A	0.0317
45	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon6	S570G	chr16	347798	T	C	0.2183
45	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon19	R1223H	chr16	3807319	C	T	0.2019
45	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon33	P1100S	chr16	89815117	G	A	0.2175
45	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon20	A648T	chr16	2226329	G	A	0.2164
45	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon5	E157K	chr17	59926528	C	T	0.2183
45	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon18	V697L	chr17	37879794	G	T	0.2371
45	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon31	M1492I	chr17	15973516	C	A	0.3793
45	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon20	P755S	chr17	16004991	G	A	0.2080
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0345
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0417
45	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0276
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0351
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0274
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0410
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0419

45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0276
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0364
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0328
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0601
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0482
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0314
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0262
45	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0260
45	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon11	D734N	chr18	59221722	G	A	0.0217
45	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0318
45	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon27	A1411T	chr19	2226751	G	A	0.2716
45	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon2	G37D	chr19	7267898	C	T	0.2202
45	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon1	W110R	chr2	30143198	A	T	0.5346
45	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon60	G3203R	chr2	141232725	C	T	0.2140
45	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0551
45	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T60I	chr22	29669806	C	T	0.0333
45	<i>CRBN</i>	nonsynonymous SNV	NM_016302	exon8	R309H	chr3	3195669	C	T	0.2514
45	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon13	E772G	chr3	89480478	A	G	0.2393
45	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon3	T70M	chr3	185146578	C	T	0.2633
45	<i>RAF1</i>	nonsynonymous SNV	NM_002880	exon7	P271S	chr3	12645658	G	A	0.1886
45	<i>SOX2</i>	nonsynonymous SNV	NM_003106	exon1	G190S	chr3	181430716	G	A	0.0160
45	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon26	M867V	chr4	20555465	A	G	0.2555
45	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0376
45	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0530
45	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0212
45	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	R101K	chr5	170818753	G	A	0.0422
45	<i>NPM1</i>	stopgain SNV	NM_002520	exon8	R197X	chr5	170827849	C	T	0.0324

45	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon58	N3039K	chr6	51613297	A	T	0.2006
45	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon16	T638M	chr7	55238900	C	T	0.1722
45	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	T56M	chr7	106508173	C	T	0.0120
45	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0284
45	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon17	A877V	chr8	9592983	C	T	0.0760
45	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon22	R819Q	chr8	87470211	G	A	0.0210
45	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon2	Q88H	chr9	80537134	C	A	0.1749
45	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon5	G122D	chrX	47424445	G	A	0.1737
45	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon23	R1291C	chrX	53223488	G	A	0.0321
45	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon18	R815L	chrX	70345907	G	T	0.2386
46	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	I117T	chr1	22413223	T	C	0.0370
46	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon3	G133D	chr1	45297881	C	T	0.1523
46	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon1	A233V	chr11	92085976	C	T	0.0997
46	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	L185R	chr11	100999248	A	C	0.4082
46	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon11	I2278N	chr13	32915325	T	A	0.3657
46	<i>CDX2</i>	nonsynonymous SNV	NM_001265	exon3	P260L	chr13	28537415	G	A	0.1948
46	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0443
46	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon4	S153A	chr15	49776573	T	G	0.0381
46	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon11	Y523D	chr16	68853184	T	G	0.2677
46	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon20	R870S	chr17	16004644	C	A	0.3068
46	<i>NCOR1</i>	nonsynonymous SNV	NM_006311	exon10	R350Q	chr17	16049723	C	T	0.0430
46	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0335
46	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0424
46	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0349
46	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0426
46	<i>SOX9</i>	nonsynonymous SNV	NM_000346	exon3	P342S	chr17	70120022	C	T	0.4724
46	<i>APCDD1</i>	nonsynonymous SNV	NM_153000	exon5	R513C	chr18	10488027	C	T	0.2192

46	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon9	D483E	chr19	42794088	C	G	0.0264
46	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon6	I202L	chr19	17953382	T	G	0.0707
46	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon5	G254V	chr19	15302597	C	A	0.2157
46	<i>STAT4</i>	nonsynonymous SNV	NM_001243835	exon11	L347Q	chr2	191923490	A	T	0.0946
46	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon13	A426T	chr20	39793631	G	A	0.1871
46	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon15	Y559H	chr3	52651421	A	G	0.2083
46	<i>TGFBR2</i>	nonsynonymous SNV	NM_001024847	exon6	G445R	chr3	30715600	G	C	0.5436
46	<i>KDR</i>	nonsynonymous SNV	NM_002253	exon8	G335C	chr4	55976909	C	A	0.1538
46	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon12	N535D	chr5	176522414	A	G	0.0382
46	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon1	L78P	chr5	56111633	T	C	0.4793
46	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0260
46	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon8	R197Q	chr5	170827850	G	A	0.0409
46	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon9	P241S	chr5	170832357	C	T	0.0358
46	<i>TERT</i>	upstream	.	.	.	chr5	1295590	C	T	0.2654
46	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	W490C	chr6	157100533	G	C	0.1020
46	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0363
46	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	T144P	chr7	6441583	A	C	0.0374
46	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon13	R500Q	chr7	83023614	C	T	0.4500
46	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon25	R1144C	chr7	98528292	C	T	0.4799
46	<i>NKX3-1</i>	nonsynonymous SNV	NM_001256339	exon3	T89M	chr8	23538948	G	A	0.4467
46	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon11	P782S	chr9	133759964	C	T	0.2159
46	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon16	M839V	chr9	8460529	T	C	0.2479
47	<i>ARID1A</i>	splicing	NM_006015	exon8	c.2420-1G>T	chr1	27089463	G	T	0.2280
47	<i>PTCH2</i>	nonsynonymous SNV	NM_001166292	exon14	G587R	chr1	45293814	C	T	0.2182
47	<i>CCND1</i>	nonsynonymous SNV	NM_053056	exon4	R231C	chr11	69462878	C	T	0.2510
47	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon18	P3777L	chr11	92577863	C	T	0.2082
47	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon21	R4002H	chr11	92600253	G	A	0.2049

47	<i>ARID2</i>	stopgain SNV	NM_152641	exon17	R1677X	chr12	46285669	C	T	0.1900
47	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon15	M753I	chr12	6703679	C	T	0.2337
47	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon23	S769A	chr12	50037105	T	G	0.0361
47	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon4	I290F	chr14	45618148	A	T	0.4627
47	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon5	V188G	chr16	68842627	T	G	0.2185
47	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0231
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0316
47	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0246
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0278
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0244
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0288
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0382
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0256
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0304
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0341
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0268
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0337
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0360
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1499R	chr17	29587452	T	G	0.0290
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0218
47	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0225
47	<i>RNF43</i>	stopgain SNV	NM_017763	exon9	R371X	chr17	56436026	G	A	0.2445
47	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon11	S724G	chr18	59221692	A	G	0.2437
47	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	P178R	chr19	42791552	C	G	0.0167
47	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon13	L682I	chr19	15296398	G	T	0.2301
47	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon9	R444C	chr19	11101910	C	T	0.0242
47	<i>CASP8</i>	stopgain SNV	NM_001228	exon6	G185X	chr2	202137406	G	T	0.1954



47	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon8	G213D	chr20	36024649	G	A	0.0576
47	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon11	L325Q	chr20	39726976	T	A	0.2479
47	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0304
47	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	R311H	chr22	39387545	G	A	0.1650
47	<i>ETV5</i>	nonsynonymous SNV	NM_004454	exon6	Q106H	chr3	185798879	C	A	0.0339
47	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon26	V1253M	chr3	78676589	C	T	0.1935
47	<i>FBXW7</i>	nonsynonymous SNV	NM_033632	exon9	R465C	chr4	153249385	G	A	0.0968
47	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0325
47	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0820
47	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0256
47	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon24	G1920W	chr5	176720934	G	T	0.2317
47	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon22	P1369S	chr6	32168928	G	A	0.1961
47	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon43	C2252F	chr6	117609944	C	A	0.0298
47	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0384
47	<i>KAT6A</i>	nonsynonymous SNV	NM_001099412	exon18	T1572M	chr8	41791023	G	A	0.1708
47	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon16	Q834H	chr8	9592563	G	T	0.1355
47	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon25	A1343T	chr9	139400321	C	T	0.2232
47	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon22	R1073G	chrX	44941967	A	G	0.2037
48	<i>MUTYH</i>	nonsynonymous SNV	NM_012222	exon14	Q451P	chr1	45796969	T	G	0.4533
48	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon12	S481L	chr13	25058797	G	A	0.0263
48	<i>XRCC3</i>	nonsynonymous SNV	NM_005432	exon5	H29Y	chr14	104174967	G	A	0.2435
48	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0442
48	<i>CDK12</i>	nonsynonymous SNV	NM_015083	exon1	N31D	chr17	37618415	A	G	0.5037
48	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0504
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0395
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0385
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0476

48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0622
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0582
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0353
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0463
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	W1314G	chr17	29563005	T	G	0.0398
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0360
48	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0395
48	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0377
48	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon9	R366C	chr2	25469946	G	A	0.2261
48	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0833
48	<i>PNRC1</i>	nonsynonymous SNV	NM_006813	exon1	A171S	chr6	89791124	G	T	0.4103
48	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0306
48	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0237
48	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon9	S856R	chrX	76938180	G	T	0.0457
49	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon40	A1334T	chr16	89805896	C	T	0.3860
49	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon9	K590N	chr16	9927969	T	G	0.4577
49	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0603
49	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0645
49	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0495
49	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0622
49	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0576
49	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0772
49	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon14	P1019L	chr19	15353824	G	A	0.4853
49	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon4	A66V	chr21	36259294	G	A	0.0556
49	<i>EPHA6</i>	upstream	.	.	.	chr3	96533403	C	T	0.5847
49	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0661
49	<i>DAXX</i>	nonsynonymous SNV	NM_001350	exon6	L500P	chr6	33287598	A	G	0.4301

49	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon22	E1292Q	chr6	32169159	C	G	0.0667
49	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0468
50	<i>MPL</i>	nonsynonymous SNV	NM_005373	exon3	R102H	chr1	43804305	G	A	0.2373
50	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	S2400Y	chr1	16259934	C	A	0.1512
50	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon28	L1372F	chr11	108159710	G	T	0.1126
50	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon11	K312T	chr12	50028237	A	C	0.2258
50	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	D601N	chr14	102549934	C	T	0.1045
50	<i>MAP2K1</i>	nonsynonymous SNV	NM_002755	exon3	R113K	chr15	66729130	G	A	0.0838
50	<i>TP53</i>	stopgain SNV	NM_000546	exon9	Q317X	chr17	7576897	G	A	0.2035
50	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon1	Y72C	chr18	59158001	A	G	0.3200
50	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon2	D72N	chr19	7267794	C	T	0.0976
50	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon18	Y834C	chr19	11129695	A	G	0.4096
50	<i>NCOA3</i>	stopgain SNV	NM_006534	exon3	Q27X	chr20	46251070	C	T	0.1458
50	<i>EPHA6</i>	nonsynonymous SNV	NM_001080448	exon4	P391H	chr3	96945165	C	A	0.3583
50	<i>FANCD2</i>	splicing	NM_001018115	exon25	c.2385+2T>G	chr3	10107665	T	G	0.1000
50	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.1223
50	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon6	V798I	chr5	176638599	G	A	0.1695
50	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon22	T987M	chr7	2952980	G	A	0.3780
50	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon16	E926K	chr7	100402846	C	T	0.0671
50	<i>EPHB4</i>	nonsynonymous SNV	NM_004444	exon16	R917Q	chr7	100402872	C	T	0.0643
50	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon2	E44G	chr7	6045555	T	C	0.0560
50	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon5	L103F	chr7	6439781	C	T	0.0594
50	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon9	P370L	chr8	38277220	G	A	0.1609
50	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon7	A416S	chr9	133750358	G	T	0.1863
50	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon11	K857T	chr9	133760190	A	C	0.3143
50	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon9	S496N	chr9	139411792	C	T	0.2133
50	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon4	V878A	chrX	39931966	A	G	0.5465

50	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon6	V156A	chrX	40996088	T	C	0.2300
50	<i>ZRSR2</i>	nonsynonymous SNV	NM_005089	exon4	Q100L	chrX	15821906	A	T	0.0510
51	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon1	S426L	chr11	92086555	C	T	0.4192
51	<i>RB1</i>	nonsynonymous SNV	NM_000321	exon4	N146H	chr13	48919271	A	C	0.5074
51	<i>HSP90AA1</i>	stopgain SNV	NM_001017963	exon4	W284X	chr14	102552138	C	T	0.0566
51	<i>BLM</i>	nonsynonymous SNV	NM_000057	exon18	L1145H	chr15	91346826	T	A	0.4620
51	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	V113G	chr15	49775399	T	G	0.0769
51	<i>ETV4</i>	nonsynonymous SNV	NM_001079675	exon11	P354S	chr17	41606940	G	A	0.0741
51	<i>GNA13</i>	nonsynonymous SNV	NM_006572	exon4	N278D	chr17	63010677	T	C	0.0618
51	<i>GNA13</i>	nonsynonymous SNV	NM_006572	exon4	V276F	chr17	63010683	C	A	0.0615
51	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0645
51	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0679
51	<i>TP53</i>	splicing	NM_000546	exon6	c.376-1G>A	chr17	7578555	C	T	0.2152
51	<i>GNA11</i>	nonsynonymous SNV	NM_002067	exon7	L351P	chr19	3121149	T	C	0.0618
51	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon47	F2556L	chr2	141291686	A	G	0.1176
51	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon8	E1237K	chr2	48033405	G	A	0.0582
51	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon1	G11C	chr20	39766312	G	T	0.4317
51	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	L472P	chr21	36164460	A	G	0.4891
51	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	R346H	chr21	36164838	C	T	0.0350
51	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon10	N442K	chr5	138240067	T	A	0.0616
51	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0691
51	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	A1764T	chr6	157527565	G	A	0.0417
51	<i>MYC</i>	upstream	.	.	.	chr8	128747876	C	T	0.5103
51	<i>PAK3</i>	nonsynonymous SNV	NM_002578	exon9	D175E	chrX	110406199	T	A	0.1091
52	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon3	L83M	chr1	226253475	C	A	0.2407
52	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon5	F187Y	chr12	112892402	T	A	0.1920
52	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	D489Y	chr12	112926845	G	T	0.1622

52	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon24	R994H	chr13	25026577	C	T	0.1270
52	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon26	R1446H	chr16	3788617	C	T	0.2000
52	<i>APCDD1</i>	nonsynonymous SNV	NM_153000	exon3	P252S	chr18	10472038	C	T	0.4400
52	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon25	R1546H	chr19	15284978	C	T	0.2349
52	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon20	M1103V	chr19	15290903	T	C	0.6941
52	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon6	R203Q	chr2	25497841	C	T	0.1508
52	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon3	L48F	chr20	54961488	C	G	0.1118
52	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A548V	chr20	57429963	C	T	0.1755
52	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	Q298R	chr22	39387506	A	G	0.3083
52	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon6	S452G	chr3	89445034	A	G	0.1325
52	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	K463M	chr3	10089710	A	T	0.1250
52	<i>TGFBR2</i>	nonsynonymous SNV	NM_001024847	exon5	S311F	chr3	30713532	C	T	0.1048
52	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon13	G576S	chr5	176522629	G	A	0.1852
52	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon13	T559A	chr5	180048887	T	C	0.2545
52	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon14	L1338I	chr5	176684005	C	A	0.1124
52	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon24	V2349I	chr5	176722221	G	A	0.2976
52	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon5	A503T	chr6	106553542	G	A	0.1007
52	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon17	R767C	chr7	82996931	G	A	0.0926
52	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	P117L	chr8	38205340	G	A	0.1867
52	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon22	G1212S	chr9	98211521	C	T	0.3822
52	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon30	E2206G	chrX	76813004	T	C	0.1386
52	<i>BCORL1</i>	stopgain SNV	NM_021946	exon3	R1090X	chrX	129150016	C	T	0.1548
52	<i>CUL4B</i>	nonsynonymous SNV	NM_003588	exon9	T393I	chrX	119678018	G	A	0.1294
52	<i>PAK3</i>	nonsynonymous SNV	NM_002578	exon9	D175E	chrX	110406199	T	A	0.0933
52	<i>ZRSR2</i>	nonsynonymous SNV	NM_005089	exon11	R448H	chrX	15841259	G	A	0.1195
53	<i>KRAS</i>	nonsynonymous SNV	NM_033360	exon2	A18V	chr12	25398266	G	A	0.0756
53	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon14	T543I	chr12	112939976	C	T	0.0952

53	<i>XRCC3</i>	nonsynonymous SNV	NM_005432	exon7	L169P	chr14	104169565	A	G	0.2107
53	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon28	R1158H	chr15	93536106	G	A	0.4485
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0539
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.1176
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0714
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0470
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	M1041I	chr17	29557869	G	T	0.0725
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	V1308E	chr17	29562988	T	A	0.0619
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	P1421L	chr17	29585450	C	T	0.0574
53	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0549
53	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon5	G1069R	chr2	48030591	G	C	0.6100
53	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon1	G11C	chr20	39766312	G	T	0.3161
53	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon10	T341M	chr20	36028680	C	T	0.2360
53	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon1	G124C	chr22	23523517	G	T	0.3085
53	<i>GSK3B</i>	stopgain SNV	NM_002093	exon10	R321X	chr3	119582440	G	A	0.0866
53	<i>INPP4B</i>	nonsynonymous SNV	NM_003866	exon20	R597Q	chr4	143045844	C	T	0.4218
53	<i>FGFR4</i>	splicing	NM_002011	exon9	c.1251+1G>A	chr5	176520333	G	A	0.3060
53	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0680
53	<i>WISP3</i>	nonsynonymous SNV	NM_003880	exon4	E123K	chr6	112385978	G	A	0.7451
53	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	L91M	chr7	106508277	C	A	0.2735
53	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon5	L103F	chr7	6439781	C	T	0.0710
53	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon13	V779I	chr8	38162871	C	T	0.7278
53	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	L759F	chr8	87464791	A	T	0.1045
53	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	M760L	chr8	87464792	A	T	0.1000
53	<i>SYK</i>	nonsynonymous SNV	NM_003177	exon12	G532R	chr9	93650043	G	A	0.0533
54	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0466
54	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon20	V901A	chr1	226551728	A	G	0.0704

54	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon5	K195N	chr12	46211619	A	T	0.0451
54	<i>PTPN11</i>	stopgain SNV	NM_002834	exon4	R138X	chr12	112891078	C	T	0.0429
54	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R351Q	chr12	112915779	G	A	0.0288
54	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	D487N	chr12	112926839	G	A	0.0419
54	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon21	V960I	chr13	28897002	C	T	0.0410
54	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon6	T415R	chr14	102551121	G	C	0.0313
54	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0540
54	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon18	P1106S	chr15	99482448	C	T	0.4309
54	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon5	E837K	chr16	23640966	C	T	0.6221
54	<i>PHLPP2</i>	nonsynonymous SNV	NM_015020	exon17	D886N	chr16	71686854	C	T	0.0388
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0645
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0435
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0431
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0508
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0505
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	N793S	chr17	29554593	A	G	0.0374
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0587
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0426
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0367
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0396
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0323
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	R1000C	chr17	29557285	C	T	0.0676
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0328
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0394
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	V1120A	chr17	29559762	T	C	0.0309
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	A1224V	chr17	29560194	C	T	0.0364
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	V1308E	chr17	29562988	T	A	0.0362

54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	P1421L	chr17	29585450	C	T	0.0451
54	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1499R	chr17	29587452	T	G	0.0405
54	<i>RNF43</i>	stopgain SNV	NM_017763	exon5	Q180X	chr17	56440680	G	A	0.3178
54	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0557
54	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0388
54	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0407
54	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon26	K904N	chr4	20555578	A	T	0.1600
54	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon4	R74K	chr5	169097598	G	A	0.4753
54	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0462
54	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0797
54	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0267
54	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	R101W	chr5	170818752	A	T	0.0381
54	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon6	C333G	chr5	176637204	T	G	0.5230
54	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon13	P787S	chr6	93965569	G	A	0.1822
54	<i>ELMO1</i>	nonsynonymous SNV	NM_001206480	exon22	L701P	chr7	36895238	A	G	0.2351
54	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon3	D70G	chr7	6043644	T	C	0.0446
54	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	E222K	chr8	38205026	C	T	0.0347
54	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	R764H	chr8	87464805	G	A	0.0535
54	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	L372R	chr8	37555534	T	G	0.4926
54	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon4	I190V	chr9	80412473	T	C	0.0435
55	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon6	D171N	chr1	162725039	G	A	0.1781
55	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon1	L8F	chr1	226595609	G	A	0.4042
55	<i>RET</i>	nonsynonymous SNV	NM_020975	exon4	R250H	chr10	43600523	G	A	0.1992
55	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon5	R1336C	chr11	92498066	C	T	0.1488
55	<i>FGF4</i>	nonsynonymous SNV	NM_002007	exon3	P149S	chr11	69588253	G	A	0.2593
55	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon10	R351H	chr11	94201025	C	T	0.1420
55	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon7	Q281H	chr12	56481915	G	C	0.1101



55	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G93E	chr12	112888262	G	A	0.0662
55	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon15	S591R	chr12	112942557	A	C	0.0813
55	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon15	S591N	chr12	112942558	G	A	0.0839
55	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon15	F592L	chr12	112942562	C	A	0.0872
55	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon12	E2292A	chr13	32918728	A	C	0.5769
55	<i>FANCM</i>	nonsynonymous SNV	NM_020937	exon20	S1638N	chr14	45658138	G	A	0.4545
55	<i>MAP2K1</i>	nonsynonymous SNV	NM_002755	exon11	L375I	chr15	66782894	C	A	0.3380
55	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0543
55	<i>AKT2</i>	nonsynonymous SNV	NM_001626	exon9	V272A	chr19	40743892	A	G	0.1775
55	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon6	N445S	chr19	7170697	T	C	0.1034
55	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon9	R403H	chr19	17951085	C	T	0.1791
55	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon8	A399T	chr19	15299983	C	T	0.1435
55	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon5	T142A	chr2	209110139	T	C	0.1057
55	<i>ARFRP1</i>	nonsynonymous SNV	NM_003224	exon8	R177C	chr20	62331872	G	A	0.1330
55	<i>NCOA3</i>	stopgain SNV	NM_006534	exon14	R854X	chr20	46267799	C	T	0.2097
55	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon19	G902C	chr3	78700990	C	A	0.0632
55	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon5	E238D	chr3	77542441	G	T	0.2014
55	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon10	A437S	chr5	138240050	G	T	0.0960
55	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon23	R1041Q	chr5	180043464	C	T	0.1255
55	<i>MAML1</i>	nonsynonymous SNV	NM_014757	exon5	H780Y	chr5	179201165	C	T	0.5032
55	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0707
55	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon20	R1843H	chr6	157527803	G	A	0.1402
55	<i>IRF4</i>	nonsynonymous SNV	NM_002460	exon7	S270G	chr6	401486	A	G	0.1408
55	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon16	I597N	chr7	81335037	A	T	0.1491
55	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon37	I1711T	chr7	98547704	T	C	0.1478
55	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon69	V3584M	chr7	98606038	G	A	0.1676
55	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	A234T	chr8	87414408	G	A	0.1198

55	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	T258M	chr8	87423815	C	T	0.1040
55	<i>PTCH1</i>	nonsynonymous SNV	NM_000264	exon23	R1345H	chr9	98209504	C	T	0.0390
56	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon11	A562T	chr1	11300462	C	T	0.1647
56	<i>NOTCH2</i>	stopgain SNV	NM_024408	exon1	W16X	chr1	120611973	C	T	0.0524
56	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon8	V317A	chr10	89720799	T	C	0.2931
56	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon23	D4298N	chr11	92616514	G	A	0.2455
56	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon5	A287V	chr12	52376518	C	T	0.1011
56	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon28	R1309S	chr12	56495735	C	A	0.1818
56	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	H84Y	chr12	112888234	C	T	0.2472
56	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon7	T284A	chr13	28623804	T	C	0.2353
56	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon2	L15P	chr15	93444511	T	C	0.2500
56	<i>FANCI</i>	nonsynonymous SNV	NM_001113378	exon29	E1020D	chr15	89848347	G	C	0.1667
56	<i>IDH2</i>	nonsynonymous SNV	NM_002168	exon1	P23R	chr15	90645555	G	C	0.4880
56	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon40	S1698I	chr16	2138073	G	T	0.0709
56	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon18	P1210L	chr19	15350023	G	A	0.2761
56	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon3	A307T	chr2	16085743	G	A	0.1556
56	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon7	R308H	chr5	138163268	G	A	0.2519
56	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon7	T325M	chr5	138163319	C	T	0.1731
56	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon3	T69A	chr5	138118965	A	G	0.1900
56	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon3	G76E	chr5	138118987	G	A	0.1759
56	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon24	V2349I	chr5	176722221	G	A	0.5800
56	<i>EPHA7</i>	splicing	NM_004440	exon3	c.162+2T>C	chr6	94124419	A	G	0.1719
56	<i>HIST1H3B</i>	nonsynonymous SNV	NM_003537	exon1	R129L	chr6	26031903	C	A	0.1867
56	<i>EGFR</i>	stopgain SNV	NM_005228	exon28	Y1110X	chr7	55273007	T	G	0.2258
56	<i>EZH2</i>	splicing	NM_004456	exon19	c.2030-1G>T	chr7	148506483	C	A	0.1447
56	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon11	T573N	chr7	6026678	G	T	0.1600
56	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.1176

56	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	H390R	chr8	37555588	A	G	0.2333
56	<i>ZRSR2</i>	nonsynonymous SNV	NM_005089	exon4	E94K	chrX	15821887	G	A	0.1682
57	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon20	R2164W	chr1	27106879	C	T	0.1523
57	<i>NOTCH2</i>	stopgain SNV	NM_024408	exon13	E685X	chr1	120497829	C	A	0.2057
57	<i>TNFRSF14</i>	nonsynonymous SNV	NM_003820	exon4	A137T	chr1	2491366	G	A	0.2234
57	<i>TNKS2</i>	nonsynonymous SNV	NM_025235	exon20	P872L	chr10	93609272	C	T	0.4461
57	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon22	R1095H	chr12	6700688	C	T	0.1213
57	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon12	R576Q	chr12	6707225	C	T	0.0511
57	<i>B2M</i>	nonsynonymous SNV	NM_004048	exon1	M1V	chr15	45003745	A	G	0.2466
57	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon11	R800C	chr15	99465573	C	T	0.1379
57	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon9	E642K	chr16	3828718	C	T	0.2917
57	<i>CTCF</i>	stopgain SNV	NM_006565	exon3	Q192X	chr16	67645309	C	T	0.1595
57	<i>GRIN2A</i>	nonsynonymous SNV	NM_000833	exon4	V187I	chr16	10032264	C	T	0.4681
57	<i>PHLPP2</i>	nonsynonymous SNV	NM_015020	exon10	V542M	chr16	71703182	C	T	0.2680
57	<i>TRAF7</i>	nonsynonymous SNV	NM_032271	exon11	E353G	chr16	2223527	A	G	0.1084
57	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0563
57	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon16	D753G	chr17	59820495	T	C	0.5259
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon15	H553R	chr17	29548884	A	G	0.0536
57	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0676
57	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0619
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon5	C167Y	chr17	29496929	G	A	0.1905
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0494
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	Y735S	chr17	29553655	A	C	0.0432
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0545
57	<i>NF1</i>	stopgain SNV	NM_001042492	exon19	E767X	chr17	29554283	G	T	0.0399
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0565
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0746

57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	P931L	chr17	29556425	C	T	0.0365
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0368
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	T990P	chr17	29556970	A	C	0.0387
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	N994Y	chr17	29556982	A	T	0.0472
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0497
57	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0419
57	<i>RPA1</i>	nonsynonymous SNV	NM_002945	exon13	G436R	chr17	1787170	G	A	0.4608
57	<i>APCDD1</i>	nonsynonymous SNV	NM_153000	exon4	S353L	chr18	10485742	C	T	0.3853
57	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	R127W	chr18	60985521	G	A	0.2981
57	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon24	L850P	chr18	39647377	T	C	0.1927
57	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon27	G1305R	chr19	2226433	G	A	0.1904
57	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon27	E1211A	chr19	11144051	A	C	0.2435
57	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0408
57	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon14	P802S	chr22	41545789	C	T	0.0631
57	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0380
57	<i>SMARCB1</i>	nonsynonymous SNV	NM_003073	exon8	R366C	chr22	24175868	C	T	0.2133
57	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon8	G549R	chr3	134884869	G	A	0.1140
57	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon3	K148R	chr4	66467826	T	C	0.0792
57	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon3	S1023G	chr4	106158166	A	G	0.2083
57	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon17	G765D	chr5	149436875	C	T	0.1866
57	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon2	G2C	chr5	149465987	C	A	0.0890
57	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0440
57	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0530
57	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0658
57	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon6	P866T	chr5	176638803	C	A	0.2328
57	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon32	D1542Y	chr6	51889984	C	A	0.4362
57	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon1	D22N	chr7	140624440	C	T	0.3966

57	<i>ETV1</i>	upstream	.	.	.	chr7	14029906	G	A	0.1641
57	<i>MET</i>	nonsynonymous SNV	NM_000245	exon10	K765E	chr7	116399473	A	G	0.1909
57	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	R49H	chr7	106508152	G	A	0.0261
57	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0336
57	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0500
57	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon3	L53R	chr7	6431605	T	G	0.0748
57	<i>FGFR1</i>	nonsynonymous SNV	NM_015850	exon6	K223N	chr8	38283710	C	G	0.0441
57	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon19	V717M	chr9	87570409	G	A	0.1684
57	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon25	N1291T	chr9	8341114	T	G	0.0711
57	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon33	V2335A	chrX	76776948	A	G	0.1062
57	<i>BCOR</i>	splicing	NM_017745	exon8	c.3239-1G>T	chrX	39923853	C	A	0.5538
57	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon6	S1246G	chrX	129159012	A	G	0.0971
58	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	V7G	chr1	22404991	T	G	0.0400
58	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon1	M1R	chr10	89624228	T	G	0.0356
58	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon12	R475W	chr12	56487277	C	T	0.1270
58	<i>LRP6</i>	nonsynonymous SNV	NM_002336	exon3	R165C	chr12	12356291	G	A	0.1396
58	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0360
58	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0368
58	<i>SMARCD1</i>	nonsynonymous SNV	NM_003076	exon3	M128V	chr12	50480420	A	G	0.1245
58	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0370
58	<i>MAP2K1</i>	nonsynonymous SNV	NM_002755	exon2	D67N	chr15	66727483	G	A	0.0924
58	<i>AURKB</i>	nonsynonymous SNV	NM_004217	exon8	R248H	chr17	8108652	C	T	0.1686
58	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0271
58	<i>BRIP1</i>	nonsynonymous SNV	NM_032043	exon10	A485V	chr17	59870977	G	A	0.1220
58	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon3	T78S	chr17	11984686	A	T	0.0444
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0383
58	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0519

58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0323
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0339
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0361
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0253
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0685
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0510
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0456
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	R1207K	chr17	29560143	G	A	0.0239
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	A1224V	chr17	29560194	C	T	0.0308
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0766
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0352
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	H1558Y	chr17	29588823	C	T	0.0281
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	W1559R	chr17	29588826	T	C	0.0325
58	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0394
58	<i>AKT2</i>	nonsynonymous SNV	NM_001626	exon14	S476L	chr19	40739798	G	A	0.1237
58	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0492
58	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon12	V774M	chr19	7143049	C	T	0.1179
58	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon9	H380Y	chr20	54945288	G	A	0.0394
58	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon3	R24H	chr20	54961561	C	T	0.0318
58	<i>SRC</i>	nonsynonymous SNV	NM_005417	exon14	T524M	chr20	36031742	C	T	0.1418
58	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	T680M	chr20	39750424	C	T	0.0517
58	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0350
58	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T60I	chr22	29669806	C	T	0.0290
58	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon5	Y93C	chr22	29674070	A	G	0.0409
58	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon3	L152V	chr3	77526630	C	G	0.0317
58	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon19	K2453R	chr3	47061323	T	C	0.4810
58	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	R2703H	chr5	112179453	G	A	0.0848

58	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon15	G709A	chr5	138266277	G	C	0.0271
58	<i>MAP3K1</i>	stopgain SNV	NM_005921	exon20	R1482X	chr5	56189412	C	T	0.1246
58	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0627
58	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0320
58	<i>TERT</i>	upstream	.	.	.	chr5	1295432	G	A	0.1529
58	<i>ARID1B</i>	stopgain SNV	NM_020732	exon12	R1102X	chr6	157502271	C	T	0.1214
58	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon23	A1414V	chr6	32168682	G	A	0.1073
58	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon9	R761H	chr6	138202365	G	A	0.1205
58	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon4	R178G	chr7	140508768	G	C	0.0440
58	<i>IKZF1</i>	nonsynonymous SNV	NM_006060	exon8	E371K	chr7	50467876	G	A	0.0215
58	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0264
58	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon21	Q920R	chr7	98519512	A	G	0.0411
58	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon2	P252L	chr8	9437750	C	T	0.1199
58	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	Q557K	chr8	38184287	G	T	0.0264
58	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0267
58	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon1	R54H	chr9	21994170	C	T	0.1173
58	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	Q237R	chr9	80409404	T	C	0.0481
58	<i>JAK2</i>	nonsynonymous SNV	NM_004972	exon8	D319N	chr9	5055687	G	A	0.1287
58	<i>PAX5</i>	nonsynonymous SNV	NM_016734	exon6	G211S	chr9	36966695	C	T	0.1149
58	<i>SYK</i>	nonsynonymous SNV	NM_003177	exon9	V363I	chr9	93637037	G	A	0.4607
58	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon4	R540Q	chrX	39932980	C	T	0.1217
58	<i>STAG2</i>	stopgain SNV	NM_001042749	exon16	E505X	chrX	123195170	G	T	0.0727
58	<i>TBX22</i>	nonsynonymous SNV	NM_001109878	exon2	A7V	chrX	79277788	C	T	0.1157
59	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon46	M2132V	chr1	11186811	T	C	0.1239
59	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon13	A434T	chr1	46738399	G	A	0.1333
59	<i>TNFRSF14</i>	nonsynonymous SNV	NM_003820	exon6	R231K	chr1	2493252	G	A	0.1437
59	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon21	Y1034C	chr11	108143282	A	G	0.5487

59	<i>WT1</i>	nonsynonymous SNV	NM_024424	exon1	A109V	chr11	32456566	G	A	0.1642
59	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon7	A566V	chr12	115112043	G	A	0.1294
59	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon8	S413N	chr16	66429982	G	A	0.1267
59	<i>CTCF</i>	nonsynonymous SNV	NM_006565	exon10	V583I	chr16	67663346	G	A	0.1086
59	<i>SOCS1</i>	nonsynonymous SNV	NM_003745	exon2	A120V	chr16	11348977	G	A	0.6379
59	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon7	L245V	chr17	12016597	C	G	0.0676
59	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon7	V255M	chr17	12016627	G	A	0.0752
59	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon15	T535M	chr17	78857238	C	T	0.1221
59	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon6	H269Y	chr18	25585855	G	A	0.0862
59	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon10	R262Q	chr19	10279024	C	T	0.0726
59	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon14	Q443R	chr19	2210831	A	G	0.1518
59	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon15	R469Q	chr19	2211152	G	A	0.0716
59	<i>GNA11</i>	nonsynonymous SNV	NM_002067	exon7	R300Q	chr19	3120996	G	A	0.0906
59	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon2	R19Q	chr19	18266745	G	A	0.1156
59	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon41	D2150N	chr2	141458170	C	T	0.0734
59	<i>NFE2L2</i>	nonsynonymous SNV	NM_006164	exon5	L464P	chr2	178095940	A	G	0.0759
59	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon3	Y72C	chr20	30956889	A	G	0.4383
59	<i>MLH1</i>	nonsynonymous SNV	NM_000249	exon19	R725H	chr3	37092047	G	A	0.1006
59	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon9	R408C	chr3	51980305	C	T	0.0588
59	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon33	S1194N	chr4	20599907	G	A	0.4621
59	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon14	A615V	chr5	176523080	C	T	0.0578
59	<i>DAXX</i>	nonsynonymous SNV	NM_001350	exon2	S53L	chr6	33289545	G	A	0.3772
59	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon14	A615V	chr6	160466855	C	T	0.0759
59	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon3	P50L	chr7	6431596	C	T	0.0746
59	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon1	P41L	chr8	37553619	C	T	0.0372
59	<i>JAK2</i>	nonsynonymous SNV	NM_004972	exon7	R228Q	chr9	5054631	G	A	0.0838
59	<i>JAK2</i>	nonsynonymous SNV	NM_004972	exon16	P693H	chr9	5078391	C	A	0.1351



59	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon4	A136S	chrX	39934193	C	A	0.1098
60	<i>ARID1A</i>	splicing	NM_006015	exon10	c.2879-1G>A	chr1	27092947	G	A	0.1130
60	<i>ARID1A</i>	stopgain SNV	NM_006015	exon20	Q1947X	chr1	27106228	C	T	0.1356
60	<i>H3F3A</i>	nonsynonymous SNV	NM_002107	exon2	R3G	chr1	226252059	C	G	0.0641
60	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon14	K664E	chr1	226562007	T	C	0.1128
60	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	R1854W	chr1	16258295	C	T	0.2416
60	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon14	Q3621R	chr1	16265370	A	G	0.1148
60	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon2	T45M	chr12	52369091	C	T	0.2128
60	<i>ETV6</i>	stopgain SNV	NM_001987	exon2	R14X	chr12	11905390	C	T	0.1000
60	<i>FGF6</i>	nonsynonymous SNV	NM_020996	exon2	S143N	chr12	4553321	C	T	0.4694
60	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	T336M	chr13	110437394	G	A	0.0437
60	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	T1493S	chr13	25008801	G	C	0.0867
60	<i>HSP90AA1</i>	stopgain SNV	NM_001017963	exon12	S848X	chr14	102548071	G	T	0.1022
60	<i>FANCI</i>	stopgain SNV	NM_001113378	exon18	R602X	chr15	89828432	C	T	0.2750
60	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon24	V886M	chr16	2126085	G	A	0.1704
60	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	S1474L	chr17	41231353	G	A	0.0418
60	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon17	R678Q	chr17	37879658	G	A	0.1550
60	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0889
60	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0533
60	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	L792F	chr17	29554589	C	T	0.0581
60	<i>RPTOR</i>	nonsynonymous SNV	NM_020761	exon17	R616C	chr17	78858811	C	T	0.1140
60	<i>TP53</i>	nonsynonymous SNV	NM_000546	exon4	G105S	chr17	7579374	C	T	0.1741
60	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon6	A1519V	chr18	42643428	C	T	0.1345
60	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon8	T435M	chr19	42793502	C	T	0.0977
60	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon13	N561D	chr19	18278061	A	G	0.0458
60	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon29	V1302I	chr19	11144829	G	A	0.0580
60	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon2	L38P	chr2	142567940	A	G	0.1045

60	<i>MYCN</i>	nonsynonymous SNV	NM_005378	exon2	G247C	chr2	16082925	G	T	0.0650
60	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon11	R413W	chr20	31021238	C	T	0.4620
60	<i>U2AF1</i>	nonsynonymous SNV	NM_001025204	exon6	Y20C	chr21	44515618	T	C	0.1524
60	<i>ROBO1</i>	nonsynonymous SNV	NM_002941	exon26	E1232D	chr3	78676650	C	A	0.1810
60	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon6	P1237L	chr4	106164842	C	T	0.1503
60	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0725
60	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.1036
60	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon6	T690M	chr6	157405827	C	T	0.0878
60	<i>ESR1</i>	nonsynonymous SNV	NM_001122742	exon3	A59T	chr6	152129222	G	A	0.1915
60	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon17	Y880C	chr8	9592992	A	G	0.0778
60	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon25	R1438C	chr9	139400036	G	A	0.0452
60	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon12	V1687A	chrX	129190035	T	C	0.0924
60	<i>MED12</i>	nonsynonymous SNV	NM_005120	exon26	K1225R	chrX	70349262	A	G	0.1679
60	<i>STAG2</i>	nonsynonymous SNV	NM_001042749	exon7	S142A	chrX	123176457	T	G	0.0870
61	<i>ARID1A</i>	stopgain SNV	NM_006015	exon15	R1276X	chr1	27099947	C	T	0.2082
61	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon33	M1653L	chr13	25000626	T	G	0.0556
61	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon33	K1652E	chr13	25000629	T	C	0.0565
61	<i>NKX2-1</i>	nonsynonymous SNV	NM_001079668	exon3	G388D	chr14	36986526	C	T	0.2584
61	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0515
61	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon7	E368K	chr16	66426171	G	A	0.2019
61	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon10	T508I	chr16	66432396	C	T	0.0588
61	<i>CREBBP</i>	stopgain SNV	NM_004380	exon19	Q1209X	chr16	3807362	G	A	0.2331
61	<i>NUP93</i>	nonsynonymous SNV	NM_014669	exon11	L379F	chr16	56865803	C	T	0.4851
61	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon5	C824R	chr16	23641005	A	G	0.2676
61	<i>ERBB2</i>	nonsynonymous SNV	NM_004448	exon17	R678Q	chr17	37879658	G	A	0.2204
61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0585
61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0700

61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0412
61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0301
61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0468
61	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0447
61	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0706
61	<i>KEAP1</i>	nonsynonymous SNV	NM_203500	exon2	R169C	chr19	10610205	G	A	0.1814
61	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon17	G952E	chr2	29450499	C	T	0.1714
61	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon9	H334R	chr2	202149686	A	G	0.2194
61	<i>ERBB4</i>	nonsynonymous SNV	NM_005235	exon27	A1116V	chr2	212251712	G	A	0.2167
61	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon12	A627T	chr2	141777582	C	T	0.1548
61	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon8	A376T	chr2	141819730	C	T	0.2296
61	<i>MSH2</i>	nonsynonymous SNV	NM_001258281	exon8	R316C	chr2	47656948	C	T	0.4896
61	<i>STAT4</i>	nonsynonymous SNV	NM_001243835	exon21	V682F	chr2	191897684	C	A	0.2077
61	<i>XPO1</i>	nonsynonymous SNV	NM_003400	exon15	H574Y	chr2	61719463	G	A	0.2368
61	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0373
61	<i>ERG</i>	nonsynonymous SNV	NM_001243432	exon9	T274M	chr21	39764312	G	A	0.2154
61	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	L472P	chr21	36164460	A	G	0.5496
61	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon9	R471C	chr21	36164464	G	A	0.1623
61	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0484
61	<i>PARP3</i>	nonsynonymous SNV	NM_005485	exon4	R140Q	chr3	51978512	G	A	0.2327
61	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon9	P447H	chr3	77607203	C	A	0.2415
61	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon17	E806K	chr5	138268384	G	A	0.1865
61	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon8	P247T	chr5	169111332	C	A	0.2074
61	<i>DOCK2</i>	stopgain SNV	NM_004946	exon18	R572X	chr5	169141086	C	T	0.5359
61	<i>MAML1</i>	nonsynonymous SNV	NM_014757	exon2	R408C	chr5	179193233	C	T	0.1966
61	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0380
61	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon4	R101K	chr5	170818753	G	A	0.0386

61	<i>TERT</i>	upstream	.	.	.	chr5	1295259	G	A	0.3208
61	<i>TERT</i>	upstream	.	.	.	chr5	1295699	C	T	0.4296
61	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0421
61	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	T144P	chr7	6441583	A	C	0.0524
61	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon58	R2921W	chr7	98579539	C	T	0.2018
61	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	A222T	chr8	87414372	G	A	0.0354
61	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon25	P1386L	chr9	139400191	G	A	0.2116
61	<i>USP9X</i>	nonsynonymous SNV	NM_001039590	exon39	S2200N	chrX	41082503	G	A	0.0696
62	<i>JAK1</i>	nonsynonymous SNV	NM_002227	exon8	R343Q	chr1	65330618	C	T	0.0636
62	<i>NOTCH2</i>	nonsynonymous SNV	NM_024408	exon34	M2267I	chr1	120458544	C	T	0.0972
62	<i>CBL</i>	nonsynonymous SNV	NM_005188	exon2	A76V	chr11	119103189	C	T	0.0702
62	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon7	H1526D	chr11	92523349	C	G	0.5979
62	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	T1633M	chr11	92531077	C	T	0.0680
62	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon3	G86R	chr12	112888240	G	A	0.0349
62	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	R351Q	chr12	112915779	G	A	0.0287
62	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	R498Q	chr12	112926873	G	A	0.0275
62	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon20	T820N	chr13	28592686	G	T	0.4367
62	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	I922V	chr13	110435637	T	C	0.0955
62	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A740V	chr14	102548684	G	A	0.0230
62	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	A243V	chr14	102552262	G	A	0.0302
62	<i>BLM</i>	nonsynonymous SNV	NM_000057	exon21	E1317K	chr15	91354509	G	A	0.1124
62	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0341
62	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon6	R153Q	chr15	88690572	C	T	0.0917
62	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon5	L214P	chr16	68842705	T	C	0.0610
62	<i>CREBBP</i>	splicing	NM_004380	exon20	c.3610-2A>G	chr16	3807379	T	C	0.0800
62	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	S1474L	chr17	41231353	G	A	0.0201
62	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon10	S425P	chr17	41246275	A	G	0.0864

62	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon4	R134Q	chr17	11998899	G	A	0.0831
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0439
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0243
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0278
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0339
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0442
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0376
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0376
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0436
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0353
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0337
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0451
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0337
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0364
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0586
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0458
62	<i>NF1</i>	stopgain SNV	NM_001042492	exon29	Q1298X	chr17	29562957	C	T	0.0443
62	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0305
62	<i>BCL2</i>	nonsynonymous SNV	NM_000633	exon2	A174T	chr18	60985380	C	T	0.0870
62	<i>BCL2</i>	upstream	.	.	.	chr18	60987212	G	A	0.0847
62	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0357
62	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon20	S1079N	chr19	15290974	C	T	0.4353
62	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon31	R1429H	chr19	11152098	G	A	0.0940
62	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A316T	chr20	57429266	G	A	0.0969
62	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0381
62	<i>BCR</i>	nonsynonymous SNV	NM_004327	exon1	G166V	chr22	23523644	G	T	0.4787
62	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon15	P552L	chr22	29085139	G	A	0.0328

62	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0493
62	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0189
62	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon19	G574W	chr3	10102041	G	T	0.0291
62	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon19	G574V	chr3	10102042	G	T	0.0317
62	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon15	Q606R	chr3	52651279	T	C	0.0657
62	<i>CSF1R</i>	nonsynonymous SNV	NM_005211	exon11	T507M	chr5	149447884	G	A	0.1038
62	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon15	Y476H	chr5	169135215	T	C	0.0662
62	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	D26N	chr5	170817072	G	A	0.0479
62	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0833
62	<i>PKHD1</i>	nonsynonymous SNV	NM_138694	exon32	S1314N	chr6	51890667	C	T	0.0535
62	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	E263K	chr7	106508793	G	A	0.0635
62	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0303
62	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0344
62	<i>TNKS</i>	stopgain SNV	NM_003747	exon10	E542X	chr8	9567510	G	T	0.0701
62	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon3	D232H	chr8	38196107	C	G	0.0254
62	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon5	G251D	chr9	139414008	C	T	0.0208
63	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	R147H	chr1	22413313	G	A	0.0228
63	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon1	M1R	chr10	89624228	T	G	0.0260
63	<i>ATM</i>	nonsynonymous SNV	NM_000051	exon45	V2166A	chr11	108192072	T	C	0.4289
63	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon13	Q445P	chr11	94192740	T	G	0.0278
63	<i>PGR</i>	nonsynonymous SNV	NM_000926	exon1	P426L	chr11	100998525	G	A	0.0893
63	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon2	L47R	chr12	46123874	T	G	0.1027
63	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon19	M864T	chr12	427578	A	G	0.0885
63	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	G503E	chr12	112926888	G	A	0.0185
63	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	R220H	chr12	112893770	G	A	0.0341
63	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	V497M	chr12	112926869	G	A	0.0313
63	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	A509T	chr12	112926905	G	A	0.0153

63	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon21	R956K	chr13	28897013	C	T	0.0222
63	<i>BCL2L2</i>	nonsynonymous SNV	NM_004050	exon4	R160W	chr14	23778070	C	T	0.4304
63	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon12	R849C	chr14	102548069	G	A	0.0256
63	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	I810T	chr14	102548474	A	G	0.0419
63	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0439
63	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon5	R324K	chr14	102551693	C	T	0.0252
63	<i>B2M</i>	nonsynonymous SNV	NM_004048	exon2	V57A	chr15	45007723	T	C	0.0658
63	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0641
63	<i>IDH2</i>	nonsynonymous SNV	NM_002168	exon4	R140W	chr15	90631935	G	A	0.0719
63	<i>NTRK3</i>	nonsynonymous SNV	NM_001012338	exon17	K694Q	chr15	88472475	T	G	0.0717
63	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon7	A231T	chr16	89871706	C	T	0.0697
63	<i>CD79B</i>	nonsynonymous SNV	NM_000626	exon6	E217D	chr17	62006625	T	A	0.0484
63	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon7	R262G	chr17	12016648	A	G	0.0285
63	<i>MAP2K4</i>	nonsynonymous SNV	NM_003010	exon7	R262K	chr17	12016649	G	A	0.0287
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	R1509H	chr17	29587482	G	A	0.0302
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0450
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon13	T467I	chr17	29541476	C	T	0.0357
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0277
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0209
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0450
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	R720W	chr17	29553609	C	T	0.0195
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	N730H	chr17	29553639	A	C	0.0254
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	R752T	chr17	29554239	G	C	0.0415
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0234
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0259
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R873H	chr17	29556251	G	A	0.0238
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0326

63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0445
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	T915A	chr17	29556376	A	G	0.0334
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0252
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	D919E	chr17	29556390	T	A	0.0275
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0376
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0318
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0335
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon25	L1085V	chr17	29559146	C	G	0.0320
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	N1154S	chr17	29559864	A	G	0.0244
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	S1159G	chr17	29559878	A	G	0.0243
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0272
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	S1262C	chr17	29562705	C	G	0.0417
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0323
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	R1306Q	chr17	29562982	G	A	0.0280
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	V1308E	chr17	29562988	T	A	0.0408
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	I1414M	chr17	29585430	C	G	0.0275
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0372
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	I1499R	chr17	29587452	T	G	0.0252
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon34	W1512R	chr17	29587490	T	C	0.0223
63	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0227
63	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon5	I334V	chr18	59174776	A	G	0.0948
63	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon11	R664C	chr18	59221512	C	T	0.0578
63	<i>SETBP1</i>	nonsynonymous SNV	NM_015559	exon4	I822V	chr18	42531769	A	G	0.0580
63	<i>SMAD2</i>	stopgain SNV	NM_001003652	exon10	R427X	chr18	45371712	G	A	0.0938
63	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0325
63	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon6	M469V	chr19	7170626	T	C	0.0880
63	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	A1364V	chr19	15288648	G	A	0.1128



63	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon27	A1186V	chr19	11143976	C	T	0.0739
63	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon17	A791V	chr19	11123722	C	T	0.0732
63	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon21	Q1134R	chr2	29445432	T	C	0.4734
63	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon9	R366H	chr2	25469945	C	T	0.0167
63	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon1	P16L	chr2	142888252	G	A	0.0877
63	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	V264I	chr20	57429110	G	A	0.0810
63	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0353
63	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0278
63	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T60I	chr22	29669806	C	T	0.0360
63	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon6	D141N	chr22	29678386	G	A	0.0368
63	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0403
63	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q235L	chr22	29683034	A	T	0.0218
63	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0213
63	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon19	V567I	chr3	10102020	G	A	0.0294
63	<i>PIK3CA</i>	nonsynonymous SNV	NM_006218	exon2	L37I	chr3	178916722	C	A	0.1178
63	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon7	L201R	chr4	20487885	T	G	0.0423
63	<i>CTNNA1</i>	nonsynonymous SNV	NM_001903	exon16	A745G	chr5	138266560	C	G	0.0946
63	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0302
63	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142W	chr5	170819785	C	T	0.0285
63	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	V151I	chr5	170819812	G	A	0.0193
63	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon10	R277W	chr5	170834761	C	T	0.0350
63	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon7	C498R	chr6	138200074	T	C	0.0930
63	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon17	R671Q	chr7	140439727	C	T	0.0319
63	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0333
63	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon2	E44G	chr7	6045555	T	C	0.0287
63	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon3	P50L	chr7	6431596	C	T	0.0402
63	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	T144P	chr7	6441583	A	C	0.0232

63	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon8	V293I	chr7	83035312	C	T	0.0808
63	<i>NKX3-1</i>	nonsynonymous SNV	NM_001256339	exon3	T44P	chr8	23539084	T	G	0.0264
63	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0263
63	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	V183I	chr8	87414255	G	A	0.0379
63	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	T213I	chr8	87414346	C	T	0.0281
63	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon23	R845L	chr8	87473487	G	T	0.0412
63	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	V204F	chr9	80409504	C	A	0.0333
63	<i>PAX5</i>	nonsynonymous SNV	NM_016734	exon2	V26G	chr9	37020768	A	C	0.0703
63	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon2	V21I	chrX	47422427	G	A	0.0693
63	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon16	P595T	chrX	47430818	C	A	0.0563
63	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon9	R1536S	chrX	129173245	C	A	0.0485
63	<i>CUL4B</i>	nonsynonymous SNV	NM_003588	exon8	R358M	chrX	119678400	C	A	0.0479
64	<i>ABL2</i>	nonsynonymous SNV	NM_001136000	exon12	R653C	chr1	179078400	G	A	0.0381
64	<i>ABL2</i>	nonsynonymous SNV	NM_001136000	exon7	G352R	chr1	179087846	C	T	0.1731
64	<i>AKT3</i>	nonsynonymous SNV	NM_181690	exon3	R75K	chr1	243828134	C	T	0.0379
64	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon20	A2242V	chr1	27107114	C	T	0.0130
64	<i>CDC42</i>	stopgain SNV	NM_001039802	exon5	R68X	chr1	22412955	C	T	0.0196
64	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	G15S	chr1	22405014	G	A	0.0163
64	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	R147H	chr1	22413313	G	A	0.0217
64	<i>CDC73</i>	nonsynonymous SNV	NM_024529	exon2	D58N	chr1	193094282	G	A	0.0213
64	<i>CDKN2C</i>	nonsynonymous SNV	NM_001262	exon2	A13V	chr1	51436078	C	T	0.1918
64	<i>DDR2</i>	stopgain SNV	NM_006182	exon7	Q200X	chr1	162725486	C	T	0.0193
64	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon12	S469P	chr1	162740203	T	C	0.0470
64	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	V69I	chr1	118165695	G	A	0.0804
64	<i>FAM46C</i>	nonsynonymous SNV	NM_017709	exon2	T318I	chr1	118166443	C	T	0.0437
64	<i>MDM4</i>	stopgain SNV	NM_002393	exon11	W330X	chr1	204518327	G	A	0.0489
64	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon5	A197V	chr1	11316164	G	A	0.1960

64	<i>MTOR</i>	nonsynonymous SNV	NM_004958	exon4	R160H	chr1	11317015	C	T	0.0334
64	<i>MUTYH</i>	nonsynonymous SNV	NM_012222	exon13	L428I	chr1	45797124	G	T	0.0376
64	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon6	G94D	chr1	46725645	G	A	0.0308
64	<i>RAD54L</i>	nonsynonymous SNV	NM_001142548	exon16	R558H	chr1	46739872	G	A	0.0219
64	<i>SPEN</i>	nonsynonymous SNV	NM_015001	exon11	H2208P	chr1	16259358	A	C	0.1859
64	<i>CHUK</i>	nonsynonymous SNV	NM_001278	exon1	Q33H	chr10	101989191	C	A	0.0867
64	<i>GATA3</i>	nonsynonymous SNV	NM_002051	exon3	G81E	chr10	8100268	G	A	0.1911
64	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon2	G36R	chr10	89653808	G	A	0.1643
64	<i>PTEN</i>	nonsynonymous SNV	NM_000314	exon5	P96Q	chr10	89692803	C	A	0.1218
64	<i>CBL</i>	nonsynonymous SNV	NM_005188	exon11	P608S	chr11	119156157	C	T	0.0209
64	<i>CCND1</i>	nonsynonymous SNV	NM_053056	exon1	P54S	chr11	69456241	C	T	0.0982
64	<i>CCND1</i>	nonsynonymous SNV	NM_053056	exon4	S219R	chr11	69462844	C	A	0.0397
64	<i>FANCF</i>	nonsynonymous SNV	NM_022725	exon1	G178R	chr11	22646825	C	T	0.0150
64	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon4	S1314Y	chr11	92495293	C	A	0.4906
64	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon7	V1467M	chr11	92523172	G	A	0.1931
64	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	T2334I	chr11	92533180	C	T	0.0383
64	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon9	S2711P	chr11	92534310	T	C	0.0506
64	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon18	R3686C	chr11	92577589	C	T	0.0122
64	<i>FGF3</i>	nonsynonymous SNV	NM_005247	exon1	R45H	chr11	69633568	C	T	0.2199
64	<i>GUCY1A2</i>	nonsynonymous SNV	NM_001256424	exon8	R686H	chr11	106579265	C	T	0.0543
64	<i>HRAS</i>	nonsynonymous SNV	NM_005343	exon4	K104N	chr11	533591	C	A	0.0148
64	<i>MEN1</i>	nonsynonymous SNV	NM_130804	exon11	V516L	chr11	64572108	C	A	0.0824
64	<i>MRE11A</i>	nonsynonymous SNV	NM_005590	exon13	K464R	chr11	94192683	T	C	0.0157
64	<i>WT1</i>	nonsynonymous SNV	NM_024424	exon1	G38D	chr11	32456779	C	T	0.1682
64	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon3	V155I	chr12	52370242	G	A	0.0916
64	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon7	A391T	chr12	52379044	G	A	0.0531
64	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon15	A1519S	chr12	46246461	G	T	0.0840

64	<i>CCND2</i>	nonsynonymous SNV	NM_001759	exon2	R86H	chr12	4385232	G	A	0.0437
64	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon19	R975C	chr12	6701584	G	A	0.1827
64	<i>CHD4</i>	nonsynonymous SNV	NM_001273	exon8	S328I	chr12	6709780	C	A	0.2021
64	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon14	G567D	chr12	56487969	G	A	0.0897
64	<i>FGF23</i>	nonsynonymous SNV	NM_020638	exon3	E186K	chr12	4479709	C	T	0.0203
64	<i>IGF1</i>	nonsynonymous SNV	NM_001111283	exon3	R119H	chr12	102813333	C	T	0.0116
64	<i>KDM5A</i>	nonsynonymous SNV	NM_001042603	exon4	V133I	chr12	475240	C	T	0.1059
64	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon13	R381H	chr12	50029022	G	A	0.1716
64	<i>PRPF40B</i>	nonsynonymous SNV	NM_001031698	exon21	R678C	chr12	50036372	C	T	0.0284
64	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0209
64	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	A509T	chr12	112926905	G	A	0.0161
64	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	I522T	chr12	112926945	T	C	0.0206
64	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon8	A614T	chr12	115110038	C	T	0.1028
64	<i>TBX3</i>	nonsynonymous SNV	NM_016569	exon7	D391N	chr12	115112569	C	T	0.0398
64	<i>BRCA2</i>	nonsynonymous SNV	NM_000059	exon26	T3211A	chr13	32971164	A	G	0.0489
64	<i>CDX2</i>	nonsynonymous SNV	NM_001265	exon3	P284L	chr13	28537343	G	A	0.0838
64	<i>CDX2</i>	nonsynonymous SNV	NM_001265	exon1	L165M	chr13	28542651	G	T	0.1763
64	<i>FLT1</i>	nonsynonymous SNV	NM_002019	exon21	S959I	chr13	28897004	C	A	0.1595
64	<i>FLT3</i>	nonsynonymous SNV	NM_004119	exon3	A79G	chr13	28636136	G	C	0.4351
64	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R744L	chr13	110436170	C	A	0.0420
64	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R362C	chr13	110437317	G	A	0.2467
64	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	R104C	chr13	110438091	G	A	0.2585
64	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	S1288N	chr13	25009416	C	T	0.0174
64	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon28	R1134G	chr13	25017835	T	C	0.0195
64	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon14	S565P	chr13	25051935	A	G	0.0407
64	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon11	G447E	chr13	25060318	C	T	0.0873
64	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	D676V	chr14	102549465	T	A	0.0261

64	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0177
64	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	R634G	chr14	102549592	G	C	0.0200
64	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon4	R182W	chr14	102552446	G	A	0.0242
64	<i>TSHR</i>	nonsynonymous SNV	NM_000369	exon10	V566I	chr14	81610098	G	A	0.0945
64	<i>CHD2</i>	nonsynonymous SNV	NM_001271	exon26	T1089S	chr15	93528756	C	G	0.0162
64	<i>FANCI</i>	splicing	NM_001113378	exon8	c.546-1G>T	chr15	89807133	G	T	0.1817
64	<i>FANCI</i>	nonsynonymous SNV	NM_001113378	exon22	G736D	chr15	89836210	G	A	0.0410
64	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0441
64	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon2	R40H	chr15	99250815	G	A	0.0388
64	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon10	P669L	chr15	99459910	C	T	0.1919
64	<i>LTK</i>	nonsynonymous SNV	NM_002344	exon18	C748Y	chr15	41796716	C	T	0.0212
64	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon6	A443T	chr16	348179	C	T	0.1022
64	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon3	A80T	chr16	66420739	G	A	0.0688
64	<i>CREBBP</i>	nonsynonymous SNV	NM_004380	exon10	I678V	chr16	3828093	T	C	0.2368
64	<i>FANCA</i>	nonsynonymous SNV	NM_000135	exon14	Q417H	chr16	89857919	C	A	0.0144
64	<i>GRIN2A</i>	stopgain SNV	NM_000833	exon14	Q983X	chr16	9858454	G	A	0.0726
64	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon7	A880T	chr16	23637667	C	T	0.0220
64	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon4	R511I	chr16	23646335	C	A	0.0179
64	<i>PALB2</i>	nonsynonymous SNV	NM_024675	exon1	S10N	chr16	23652450	C	T	0.0131
64	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon22	E814D	chr16	2124287	G	T	0.0866
64	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon39	V1671M	chr16	2137885	G	A	0.1809
64	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon10	A410V	chr17	41246319	G	A	0.1701
64	<i>NCOR1</i>	splicing	NM_006311	exon9	c.842+1G>A	chr17	16055259	C	T	0.2516
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0384
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	T700S	chr17	29553550	C	G	0.0136
64	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0555
64	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0242

64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0282
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0254
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0307
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0359
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0259
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0296
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	F894Y	chr17	29556314	T	A	0.0214
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	H906L	chr17	29556350	A	T	0.0199
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0223
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0329
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	M1022T	chr17	29557352	T	C	0.0273
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0188
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0168
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	I1414M	chr17	29585430	C	G	0.0139
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0285
64	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon35	A1544V	chr17	29588782	C	T	0.0167
64	<i>RARA</i>	nonsynonymous SNV	NM_000964	exon8	A389T	chr17	38511667	G	A	0.1769
64	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon10	L366P	chr18	39584432	T	C	0.0158
64	<i>SETBP1</i>	stopgain SNV	NM_015559	exon4	E520X	chr18	42530863	G	T	0.0714
64	<i>SMAD4</i>	nonsynonymous SNV	NM_005359	exon5	K159N	chr18	48581173	G	T	0.0775
64	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon6	L387I	chr19	15375268	G	T	0.0181
64	<i>BRD4</i>	nonsynonymous SNV	NM_058243	exon2	Q64K	chr19	15383721	G	T	0.0134
64	<i>DNMT1</i>	nonsynonymous SNV	NM_001130823	exon9	E255G	chr19	10283770	T	C	0.1061
64	<i>DOT1L</i>	nonsynonymous SNV	NM_032482	exon27	G1223D	chr19	2226188	G	A	0.0163
64	<i>ERCC2</i>	nonsynonymous SNV	NM_000400	exon22	A725T	chr19	45855484	C	T	0.0167
64	<i>GNA11</i>	nonsynonymous SNV	NM_002067	exon2	A89V	chr19	3110276	C	T	0.0238
64	<i>INSR</i>	nonsynonymous SNV	NM_000208	exon2	R162H	chr19	7267523	C	T	0.0134

64	<i>JAK3</i>	splicing	NM_000215	exon8	c.984+2T>C	chr19	17952447	A	G	0.0220
64	<i>MEF2B</i>	nonsynonymous SNV	NM_001145785	exon9	P353H	chr19	19256655	G	T	0.2076
64	<i>MEF2B</i>	nonsynonymous SNV	NM_001145785	exon3	D40N	chr19	19260175	C	T	0.0311
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon28	A1718T	chr19	15280944	C	T	0.0386
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon27	G1679S	chr19	15281221	C	T	0.1757
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon24	A1290V	chr19	15288870	G	A	0.1811
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon14	A737T	chr19	15296155	C	T	0.0464
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon13	P689S	chr19	15296377	G	A	0.0219
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon11	P572L	chr19	15298041	G	A	0.4866
64	<i>NOTCH3</i>	nonsynonymous SNV	NM_000435	exon10	R532H	chr19	15298703	C	T	0.0155
64	<i>PIK3R2</i>	nonsynonymous SNV	NM_005027	exon13	P565S	chr19	18278073	C	T	0.0721
64	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon6	R258H	chr19	52716329	G	A	0.0141
64	<i>PPP2R1A</i>	stopgain SNV	NM_014225	exon2	R48X	chr19	52705260	C	T	0.0826
64	<i>PPP2R1A</i>	nonsynonymous SNV	NM_014225	exon7	D282G	chr19	52719069	A	G	0.0169
64	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon20	A923T	chr19	11132551	G	A	0.1805
64	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon26	R1157Q	chr19	11141493	G	A	0.1840
64	<i>SMARCA4</i>	stopgain SNV	NM_001128844	exon27	R1189X	chr19	11143984	C	T	0.1771
64	<i>SMARCA4</i>	nonsynonymous SNV	NM_001128844	exon31	R1431H	chr19	11152104	G	A	0.0774
64	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon14	G817C	chr2	29456469	C	A	0.0496
64	<i>CASP8</i>	nonsynonymous SNV	NM_001228	exon6	C196Y	chr2	202137440	G	A	0.1898
64	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon7	G263R	chr2	209106781	C	T	0.0457
64	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon91	A4599V	chr2	140990759	G	A	0.0540
64	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon86	Y4399H	chr2	141027863	A	G	0.0305
64	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon81	K4142N	chr2	141081550	T	A	0.0431
64	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon4	Q121K	chr2	142012193	G	T	0.0338
64	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon3	C103Y	chr2	142238000	C	T	0.0181
64	<i>MSH6</i>	nonsynonymous SNV	NM_000179	exon4	G661C	chr2	48027103	G	T	0.0318

64	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon11	R394C	chr20	31021181	C	T	0.0802
64	<i>ASXL1</i>	nonsynonymous SNV	NM_015338	exon12	D979G	chr20	31023451	A	G	0.1769
64	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A548V	chr20	57429963	C	T	0.0226
64	<i>PAK7</i>	nonsynonymous SNV	NM_020341	exon8	G580D	chr20	9538259	C	T	0.1469
64	<i>PLCG1</i>	nonsynonymous SNV	NM_002660	exon15	K536N	chr20	39794188	G	T	0.1735
64	<i>PLCG1</i>	splicing	NM_002660	exon19	c.2121-1G>T	chr20	39795318	G	T	0.0503
64	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0241
64	<i>BACH1</i>	nonsynonymous SNV	NM_001186	exon5	Q699H	chr21	30715040	G	T	0.0165
64	<i>RUNX1</i>	nonsynonymous SNV	NM_001754	exon7	R232W	chr21	36206818	G	A	0.1812
64	<i>APOBEC3B</i>	nonsynonymous SNV	NM_004900	exon6	A322V	chr22	39387578	C	T	0.0388
64	<i>EP300</i>	stopgain SNV	NM_001429	exon2	R86X	chr22	41513352	C	T	0.1705
64	<i>EP300</i>	nonsynonymous SNV	NM_001429	exon31	L2058F	chr22	41573887	C	T	0.0991
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T48I	chr22	29669770	C	T	0.0244
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon4	T60I	chr22	29669806	C	T	0.0210
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0183
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	S371N	chr22	29688543	G	A	0.0191
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378T	chr22	29688563	G	A	0.0316
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon11	A378V	chr22	29688564	C	T	0.0158
64	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon12	A413V	chr22	29692302	C	T	0.1744
64	<i>SOX10</i>	nonsynonymous SNV	NM_006941	exon4	P367T	chr22	38369804	G	T	0.0149
64	<i>XBP1</i>	nonsynonymous SNV	NM_001079539	exon6	S230N	chr22	29191605	C	T	0.0177
64	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon41	D2330Y	chr3	142183992	C	A	0.0402
64	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon35	S2018I	chr3	142211999	C	A	0.0218
64	<i>ATR</i>	nonsynonymous SNV	NM_001184	exon26	R1503Q	chr3	142232476	C	T	0.1337
64	<i>BAP1</i>	nonsynonymous SNV	NM_004656	exon15	E655G	chr3	52436814	T	C	0.0900
64	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon5	N448T	chr3	187446850	T	G	0.0735
64	<i>BCL6</i>	nonsynonymous SNV	NM_001130845	exon4	G82R	chr3	187449636	C	T	0.0189



64	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon5	S222P	chr3	41266993	T	C	0.1115
64	<i>CTNNB1</i>	nonsynonymous SNV	NM_001904	exon9	A478S	chr3	41275266	G	T	0.1511
64	<i>EPHB1</i>	nonsynonymous SNV	NM_004441	exon3	R84H	chr3	134670340	G	A	0.1479
64	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon16	L436M	chr3	10089628	C	A	0.0110
64	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon19	V567I	chr3	10102020	G	A	0.0210
64	<i>FOXL2</i>	nonsynonymous SNV	NM_023067	exon1	A230V	chr3	138664876	G	A	0.1755
64	<i>MAP3K13</i>	nonsynonymous SNV	NM_001242314	exon14	F853L	chr3	185198077	C	A	0.0177
64	<i>PBRM1</i>	nonsynonymous SNV	NM_018313	exon6	R202C	chr3	52692256	G	A	0.0688
64	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon25	A1335S	chr3	77693923	G	T	0.0545
64	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon15	Q2268H	chr3	47098470	C	A	0.0426
64	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon3	K115E	chr3	47165783	T	C	0.0823
64	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon15	Y879C	chr4	66213794	T	C	0.0800
64	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon11	H654Y	chr4	66231740	G	A	0.0458
64	<i>FGFR3</i>	nonsynonymous SNV	NM_001163213	exon18	L763M	chr4	1808849	C	A	0.0484
64	<i>INPP4B</i>	nonsynonymous SNV	NM_003866	exon23	M725I	chr4	143033796	C	T	0.4490
64	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon3	S29F	chr4	55127298	C	T	0.0259
64	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon14	T665I	chr4	55144165	C	T	0.1764
64	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon22	P1027R	chr4	55156679	C	G	0.4766
64	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon1	A30V	chr4	20255527	C	T	0.0401
64	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon19	L635F	chr4	20541134	C	T	0.0950
64	<i>SLIT2</i>	nonsynonymous SNV	NM_004787	exon35	R1294H	chr4	20618566	G	A	0.0805
64	<i>TET2</i>	stopgain SNV	NM_001127208	exon3	Q1021X	chr4	106158160	C	T	0.0139
64	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon3	C332Y	chr4	106156094	G	A	0.0487
64	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon9	G1391C	chr4	106190893	G	T	0.1708
64	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon3	R116C	chr5	112102981	C	T	0.1625
64	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	A1564V	chr5	112176036	C	T	0.0228
64	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	A2102D	chr5	112177650	C	A	0.0436

64	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	R2421C	chr5	112178606	C	T	0.0321
64	<i>CHD1</i>	nonsynonymous SNV	NM_001270	exon34	S1539I	chr5	98194055	C	A	0.0640
64	<i>CTNNA1</i>	stopgain SNV	NM_001903	exon6	E277X	chr5	138160459	G	T	0.0309
64	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon25	S845I	chr5	169188609	G	T	0.0301
64	<i>DOCK2</i>	nonsynonymous SNV	NM_004946	exon50	A1739V	chr5	169507216	C	T	0.1283
64	<i>FGFR4</i>	nonsynonymous SNV	NM_002011	exon5	R171H	chr5	176518014	G	A	0.0924
64	<i>FLT4</i>	nonsynonymous SNV	NM_182925	exon11	P484S	chr5	180051033	G	A	0.1460
64	<i>IL7R</i>	nonsynonymous SNV	NM_002185	exon4	D166N	chr5	35871274	G	A	0.0258
64	<i>IL7R</i>	nonsynonymous SNV	NM_002185	exon6	L255M	chr5	35874607	C	A	0.0186
64	<i>MAP3K1</i>	nonsynonymous SNV	NM_005921	exon17	R1355C	chr5	56181839	C	T	0.1982
64	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0542
64	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon10	R277W	chr5	170834761	C	T	0.0205
64	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon5	R93Q	chr5	176631142	G	A	0.0344
64	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon8	R1042C	chr5	176665247	C	T	0.1883
64	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon15	R1428W	chr5	176687112	C	T	0.1806
64	<i>NSD1</i>	nonsynonymous SNV	NM_172349	exon24	R2148I	chr5	176721619	G	T	0.0822
64	<i>TERT</i>	upstream	.	.	.	chr5	1295857	G	A	0.1478
64	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon19	T1652M	chr6	157525060	C	T	0.0284
64	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon1	Q211H	chr6	157099696	G	T	0.0517
64	<i>ARID1B</i>	nonsynonymous SNV	NM_020732	exon11	S1010F	chr6	157495145	C	T	0.0323
64	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon7	A378D	chr6	32944646	C	A	0.0176
64	<i>BRD2</i>	nonsynonymous SNV	NM_005104	exon12	R739W	chr6	32948187	C	T	0.0313
64	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon11	L667M	chr6	93967928	G	T	0.0247
64	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon5	W374R	chr6	94066639	A	G	0.1827
64	<i>PRDM1</i>	nonsynonymous SNV	NM_001198	exon7	H681Y	chr6	106554924	C	T	0.0832
64	<i>ROS1</i>	nonsynonymous SNV	NM_002944	exon12	R428I	chr6	117710989	C	A	0.2000
64	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon3	R141H	chr6	138196108	G	A	0.0432

64	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon7	P372S	chr6	138199696	C	T	0.0411
64	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon7	R411W	chr6	138199813	C	T	0.0820
64	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon7	G482D	chr6	138200027	G	A	0.2121
64	<i>TNFAIP3</i>	nonsynonymous SNV	NM_006290	exon7	A509T	chr6	138200107	G	A	0.0385
64	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon15	S602F	chr7	140453130	G	A	0.0335
64	<i>BRAF</i>	nonsynonymous SNV	NM_004333	exon7	A311T	chr7	140500211	C	T	0.0815
64	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon24	A1056D	chr7	2949777	G	T	0.0393
64	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon5	R157W	chr7	2984061	G	A	0.1006
64	<i>EGFR</i>	nonsynonymous SNV	NM_005228	exon11	L417I	chr7	55225397	C	A	0.0829
64	<i>HGF</i>	nonsynonymous SNV	NM_000601	exon1	L11M	chr7	81399257	G	T	0.0170
64	<i>HOXA3</i>	nonsynonymous SNV	NM_153631	exon4	P291S	chr7	27147995	G	A	0.0177
64	<i>MET</i>	nonsynonymous SNV	NM_000245	exon3	R412H	chr7	116371756	G	A	0.0440
64	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon2	E570D	chr7	106509716	G	T	0.1570
64	<i>PIK3CG</i>	nonsynonymous SNV	NM_002649	exon11	H1022Y	chr7	106545587	C	T	0.0769
64	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q93R	chr7	6043396	T	C	0.0202
64	<i>SEMA3E</i>	nonsynonymous SNV	NM_012431	exon14	Q502H	chr7	83022032	C	A	0.0214
64	<i>TRRAP</i>	nonsynonymous SNV	NM_001244580	exon33	A1545V	chr7	98545950	C	T	0.0383
64	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon14	V441M	chr8	92983023	C	T	0.1279
64	<i>RUNX1T1</i>	nonsynonymous SNV	NM_001198625	exon14	A476T	chr8	92982918	C	T	0.0111
64	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon8	R584C	chr8	38178649	G	A	0.0205
64	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	T547K	chr8	38184316	G	T	0.0143
64	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon7	V537G	chr8	38184346	A	C	0.1480
64	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon2	A182T	chr8	38205146	C	T	0.0178
64	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	S215T	chr8	37555062	T	A	0.3872
64	<i>ABL1</i>	nonsynonymous SNV	NM_007313	exon4	D226G	chr9	133738220	A	G	0.2165
64	<i>BRD3</i>	nonsynonymous SNV	NM_007371	exon5	A197T	chr9	136915621	C	T	0.0250
64	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon2	P126L	chr9	21971024	G	A	0.2002

64	<i>KLF4</i>	nonsynonymous SNV	NM_004235	exon5	A472T	chr9	110248058	C	T	0.0164
64	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon28	R1784W	chr9	139396758	G	A	0.0122
64	<i>NOTCH1</i>	nonsynonymous SNV	NM_017617	exon27	A1705V	chr9	139397687	G	A	0.0143
64	<i>NTRK2</i>	nonsynonymous SNV	NM_006180	exon20	R734H	chr9	87635149	G	A	0.0306
64	<i>PTPRD</i>	nonsynonymous SNV	NM_001040712	exon11	R581C	chr9	8504333	G	A	0.0909
64	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon15	P545S	chr9	135781332	G	A	0.0128
64	<i>TSC1</i>	nonsynonymous SNV	NM_000368	exon10	P323S	chr9	135786902	G	A	0.0952
64	<i>ARAF</i>	nonsynonymous SNV	NM_001654	exon2	E13D	chrX	47422405	G	T	0.1684
64	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon12	T1358A	chrX	76918919	T	C	0.0424
64	<i>ATRX</i>	nonsynonymous SNV	NM_000489	exon12	R1337I	chrX	76918981	C	A	0.0349
64	<i>BCOR</i>	nonsynonymous SNV	NM_017745	exon4	A230T	chrX	39933911	C	T	0.0136
64	<i>BCORL1</i>	nonsynonymous SNV	NM_021946	exon12	R1691W	chrX	129190046	C	T	0.0361
64	<i>GATA1</i>	nonsynonymous SNV	NM_002049	exon6	G359C	chrX	48652404	G	T	0.0198
64	<i>KDM5C</i>	nonsynonymous SNV	NM_004187	exon15	T713M	chrX	53228264	G	A	0.0727
64	<i>KDM6A</i>	nonsynonymous SNV	NM_021140	exon17	Q709H	chrX	44929027	A	T	0.0352
64	<i>USP9X</i>	stopgain SNV	NM_001039590	exon21	Q1023X	chrX	41031130	C	T	0.0948
65	<i>ARID1A</i>	nonsynonymous SNV	NM_006015	exon18	S1513R	chr1	27101255	A	C	0.2663
65	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon3	V7G	chr1	22404991	T	G	0.0314
65	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon6	K153R	chr1	22413331	A	G	0.0251
65	<i>CDC42</i>	nonsynonymous SNV	NM_001039802	exon7	A176T	chr1	22417960	G	A	0.1686
65	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon15	R668C	chr1	162745587	C	T	0.0274
65	<i>DDR2</i>	nonsynonymous SNV	NM_006182	exon17	S790F	chr1	162748455	C	T	0.4267
65	<i>IKBKE</i>	nonsynonymous SNV	NM_014002	exon13	M447I	chr1	206653790	G	T	0.1768
65	<i>PARP1</i>	nonsynonymous SNV	NM_001618	exon2	E90D	chr1	226589931	T	G	0.1769
65	<i>TNKS2</i>	nonsynonymous SNV	NM_025235	exon26	Q1146R	chr10	93621911	A	G	0.1200
65	<i>CCND1</i>	nonsynonymous SNV	NM_053056	exon5	P287H	chr11	69466022	C	A	0.1505
65	<i>ACVR1B</i>	nonsynonymous SNV	NM_020328	exon7	H374R	chr12	52378994	A	G	0.0320

65	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon15	G1281E	chr12	46245748	G	A	0.3022
65	<i>FGF6</i>	nonsynonymous SNV	NM_020996	exon2	S143N	chr12	4553321	C	T	0.3833
65	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	K244R	chr12	112893842	A	G	0.0326
65	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	E249K	chr12	112893856	G	A	0.0250
65	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon9	E361D	chr12	112915810	G	T	0.0183
65	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	A509T	chr12	112926905	G	A	0.0142
65	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon8	R173K	chr13	113889429	G	A	0.1393
65	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	Q1269P	chr13	110434595	T	G	0.4398
65	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon31	S1288N	chr13	25009416	C	T	0.0238
65	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon30	M1209V	chr13	25016025	T	C	0.1671
65	<i>PARP4</i>	nonsynonymous SNV	NM_006437	exon14	S565P	chr13	25051935	A	G	0.0337
65	<i>FANCM</i>	splicing	NM_020937	exon2	c.681+2T>C	chr14	45606446	T	C	0.1447
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	M750V	chr14	102548655	T	C	0.0214
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon11	A730E	chr14	102548714	G	T	0.0218
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon10	S665P	chr14	102549499	A	G	0.0311
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	H572Q	chr14	102550019	G	T	0.0423
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon7	V490D	chr14	102550780	A	T	0.0356
65	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon5	L312P	chr14	102551729	A	G	0.1603
65	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0666
65	<i>IGF1R</i>	nonsynonymous SNV	NM_000875	exon18	G1117R	chr15	99482481	G	A	0.2153
65	<i>AXIN1</i>	nonsynonymous SNV	NM_003502	exon2	R293G	chr16	396149	T	C	0.2312
65	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon6	A234V	chr16	68844113	C	T	0.1627
65	<i>PHLPP2</i>	nonsynonymous SNV	NM_015020	exon2	R121H	chr16	71736557	C	T	0.0265
65	<i>TSC2</i>	nonsynonymous SNV	NM_000548	exon28	S1085L	chr16	2129399	C	T	0.4783
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	I634T	chr17	29552168	T	C	0.0258
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	A320S	chr17	29527509	G	T	0.0201
65	<i>NF1</i>	stopgain SNV	NM_001042492	exon16	Q589X	chr17	29550505	C	T	0.0262

65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon17	S641N	chr17	29552189	G	A	0.0225
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0365
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0360
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0338
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S856R	chr17	29556201	C	G	0.0246
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R873H	chr17	29556251	G	A	0.0208
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0498
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0263
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	R1000C	chr17	29557285	C	T	0.0272
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0309
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	L1141R	chr17	29559825	T	G	0.0178
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon27	M1214V	chr17	29560163	A	G	0.0253
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon28	F1287L	chr17	29562779	T	C	0.0222
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon29	P1303A	chr17	29562972	C	G	0.0239
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon32	E1436G	chr17	29585495	A	G	0.0340
65	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	F1584I	chr17	29592272	T	A	0.0253
65	<i>PRKAR1A</i>	nonsynonymous SNV	NM_001276289	exon4	G98C	chr17	66519011	G	T	0.1510
65	<i>RPA1</i>	nonsynonymous SNV	NM_002945	exon4	G90V	chr17	1747977	G	T	0.1387
65	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon9	K408N	chr18	25572739	C	A	0.0387
65	<i>CDH2</i>	nonsynonymous SNV	NM_001792	exon6	P250S	chr18	25585912	G	A	0.1801
65	<i>CDH20</i>	nonsynonymous SNV	NM_031891	exon11	D734N	chr18	59221722	G	A	0.1971
65	<i>PIK3C3</i>	nonsynonymous SNV	NM_002647	exon14	S525G	chr18	39607495	A	G	0.1784
65	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon3	G90W	chr19	42791208	G	T	0.1596
65	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	P178R	chr19	42791552	C	G	0.0181
65	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon4	R181Q	chr19	42791561	G	A	0.0430
65	<i>CIC</i>	nonsynonymous SNV	NM_015125	exon8	A430V	chr19	42793487	C	T	0.1913
65	<i>STK11</i>	nonsynonymous SNV	NM_000455	exon9	V390A	chr19	1226513	T	C	0.2154

65	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon23	R1192G	chr2	29443643	G	C	0.5005
65	<i>ALK</i>	nonsynonymous SNV	NM_004304	exon20	Y1059C	chr2	29446391	T	C	0.0181
65	<i>IDH1</i>	nonsynonymous SNV	NM_005896	exon9	S363C	chr2	209103861	G	C	0.0278
65	<i>LRP1B</i>	nonsynonymous SNV	NM_018557	exon23	S1251R	chr2	141660504	T	G	0.1746
65	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0323
65	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon6	S162G	chr22	29678449	A	G	0.2066
65	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon6	Y170C	chr22	29678474	A	G	0.0315
65	<i>EWSR1</i>	nonsynonymous SNV	NM_005243	exon7	Q216K	chr22	29682976	C	A	0.0222
65	<i>XBP1</i>	nonsynonymous SNV	NM_001079539	exon6	I259T	chr22	29191518	A	G	0.2000
65	<i>FANCD2</i>	nonsynonymous SNV	NM_001018115	exon27	P852L	chr3	10114615	C	T	0.6539
65	<i>MLH1</i>	nonsynonymous SNV	NM_000249	exon12	M383R	chr3	37067237	T	G	0.0353
65	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon14	Q674R	chr3	77623699	A	G	0.1924
65	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon14	V698I	chr3	77623770	G	A	0.1749
65	<i>SETD2</i>	nonsynonymous SNV	NM_014159	exon15	Q2314R	chr3	47098333	T	C	0.2400
65	<i>EPHA5</i>	nonsynonymous SNV	NM_004439	exon10	C621Y	chr4	66233137	C	T	0.1958
65	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon16	E750V	chr4	55146575	A	T	0.1366
65	<i>TET2</i>	nonsynonymous SNV	NM_001127208	exon7	C1273G	chr4	106180789	T	G	0.1524
65	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon14	Q2482R	chr5	112178790	A	G	0.1596
65	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0765
65	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon3	E68K	chr5	170818372	G	A	0.0242
65	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon5	R142Q	chr5	170819786	G	A	0.0376
65	<i>TERT</i>	upstream	.	.	.	chr5	1295753	C	T	0.2190
65	<i>EPHA7</i>	nonsynonymous SNV	NM_004440	exon3	R247G	chr6	94120312	T	C	0.2054
65	<i>IGF2R</i>	nonsynonymous SNV	NM_000876	exon16	L726P	chr6	160468316	T	C	0.2125
65	<i>NOTCH4</i>	nonsynonymous SNV	NM_004557	exon6	G349D	chr6	32188295	C	T	0.0175
65	<i>CARD11</i>	nonsynonymous SNV	NM_032415	exon7	R292C	chr7	2978456	G	A	0.1280
65	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100R	chr7	6043375	T	C	0.0236

65	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100E	chr7	6043376	G	C	0.0188
65	<i>SEMA3A</i>	nonsynonymous SNV	NM_006080	exon7	S228G	chr7	83643653	T	C	0.2563
65	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	P232L	chr8	87414403	C	T	0.0175
65	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon8	A234T	chr8	87414408	G	A	0.0237
65	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon21	R764H	chr8	87464805	G	A	0.0399
65	<i>FANCG</i>	nonsynonymous SNV	NM_004629	exon5	L191S	chr9	35077335	A	G	0.1985
65	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	Q237R	chr9	80409404	T	C	0.0345
65	<i>GNAQ</i>	nonsynonymous SNV	NM_002072	exon5	V204F	chr9	80409504	C	A	0.0289
66	<i>ARID1A</i>	stopgain SNV	NM_006015	exon3	Q555X	chr1	27057955	C	T	0.0976
66	<i>FAT3</i>	nonsynonymous SNV	NM_001008781	exon2	P1146L	chr11	92257944	C	T	0.1079
66	<i>ARID2</i>	nonsynonymous SNV	NM_152641	exon1	P10T	chr12	46123647	C	A	0.4913
66	<i>ERBB3</i>	nonsynonymous SNV	NM_001982	exon3	V104M	chr12	56478854	G	A	0.1507
66	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon2	L30S	chr12	112884154	T	C	0.0334
66	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon6	R220H	chr12	112893770	G	A	0.0337
66	<i>PTPN11</i>	nonsynonymous SNV	NM_002834	exon13	I522T	chr12	112926945	T	C	0.0308
66	<i>BRCA2</i>	stopgain SNV	NM_000059	exon11	E731X	chr13	32910683	G	T	0.1148
66	<i>CUL4A</i>	nonsynonymous SNV	NM_003589	exon9	C189F	chr13	113891154	G	T	0.0299
66	<i>IRS2</i>	nonsynonymous SNV	NM_003749	exon1	A660T	chr13	110436423	C	T	0.1128
66	<i>HSP90AA1</i>	nonsynonymous SNV	NM_001017963	exon9	R578Q	chr14	102550002	C	T	0.0322
66	<i>FGF7</i>	nonsynonymous SNV	NM_002009	exon3	K123E	chr15	49775428	A	G	0.0360
66	<i>LTK</i>	nonsynonymous SNV	NM_002344	exon16	G666A	chr15	41797191	C	G	0.5279
66	<i>CDH1</i>	nonsynonymous SNV	NM_004360	exon6	A234T	chr16	68844112	G	A	0.0723
66	<i>CDH5</i>	nonsynonymous SNV	NM_001795	exon12	A707V	chr16	66436837	C	T	0.1179
66	<i>BRCA1</i>	nonsynonymous SNV	NM_007300	exon13	H1457R	chr17	41231404	T	C	0.0303
66	<i>NF1</i>	splicing	NM_001042492	exon33	c.4333-1G>A	chr17	29586049	G	A	0.0385
66	<i>NF1</i>	stopgain SNV	NM_001042492	exon35	R1534X	chr17	29588751	C	T	0.0308
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon9	S340A	chr17	29527569	T	G	0.0396



66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon16	R601Q	chr17	29550542	G	A	0.0334
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	W696R	chr17	29553537	T	C	0.0382
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	I719T	chr17	29553607	T	C	0.0290
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon18	M747V	chr17	29553690	A	G	0.0375
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon19	I766T	chr17	29554281	T	C	0.0269
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon20	K798Q	chr17	29554607	A	C	0.0459
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	S825P	chr17	29556106	T	C	0.0462
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	E836A	chr17	29556140	A	C	0.0318
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	R897Q	chr17	29556323	G	A	0.0482
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon21	V917D	chr17	29556383	T	A	0.0316
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon22	G984E	chr17	29556953	G	A	0.0305
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon23	Q1033R	chr17	29557385	A	G	0.0312
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon24	L1064I	chr17	29557936	C	A	0.0215
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon26	S1159G	chr17	29559878	A	G	0.0300
66	<i>NF1</i>	nonsynonymous SNV	NM_001042492	exon36	T1598A	chr17	29592314	A	G	0.0349
66	<i>PRKAR1A</i>	nonsynonymous SNV	NM_001276289	exon3	R13H	chr17	66511578	G	A	0.0890
66	<i>GNA11</i>	nonsynonymous SNV	NM_002067	exon4	A168T	chr19	3114967	G	A	0.0146
66	<i>JAK3</i>	nonsynonymous SNV	NM_000215	exon2	R14H	chr19	17955186	C	T	0.0185
66	<i>DNMT3A</i>	nonsynonymous SNV	NM_175629	exon11	E444D	chr2	25469126	C	A	0.0658
66	<i>AURKA</i>	nonsynonymous SNV	NM_003600	exon3	R56H	chr20	54961465	C	T	0.0357
66	<i>GNAS</i>	nonsynonymous SNV	NM_080425	exon1	A461V	chr20	57429702	C	T	0.0189
66	<i>TOP1</i>	nonsynonymous SNV	NM_003286	exon19	D664N	chr20	39750375	G	A	0.0267
66	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon14	R517C	chr22	29090061	G	A	0.0393
66	<i>CHEK2</i>	nonsynonymous SNV	NM_001005735	exon13	Y488H	chr22	29091157	A	G	0.0515
66	<i>EPHA3</i>	nonsynonymous SNV	NM_005233	exon3	K100N	chr3	89259156	G	T	0.0423
66	<i>KLHL6</i>	nonsynonymous SNV	NM_130446	exon3	D182N	chr3	183226212	C	T	0.1628
66	<i>ROBO2</i>	nonsynonymous SNV	NM_002942	exon4	V204I	chr3	77530313	G	A	0.0403

66	<i>PDGFRA</i>	nonsynonymous SNV	NM_006206	exon23	T1052S	chr4	55161323	A	T	0.5200
66	<i>APC</i>	nonsynonymous SNV	NM_001127511	exon3	C120R	chr5	112102993	T	C	0.0992
66	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon2	Y29D	chr5	170817081	T	G	0.0922
66	<i>NPM1</i>	nonsynonymous SNV	NM_002520	exon10	R277W	chr5	170834761	C	T	0.0275
66	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon5	A127V	chr7	6042241	G	A	0.0193
66	<i>PMS2</i>	nonsynonymous SNV	NM_000535	exon4	Q100E	chr7	6043376	G	C	0.0201
66	<i>RAC1</i>	nonsynonymous SNV	NM_018890	exon6	P159L	chr7	6441629	C	T	0.0284
66	<i>TNKS</i>	nonsynonymous SNV	NM_003747	exon1	G122S	chr8	9413813	G	A	0.4535
66	<i>WHSC1L1</i>	nonsynonymous SNV	NM_023034	exon4	S263F	chr8	38194945	G	A	0.1038
66	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon10	R373Q	chr8	87437508	G	A	0.0377
66	<i>WWP1</i>	nonsynonymous SNV	NM_007013	exon9	E312D	chr8	87423978	G	C	0.0308
66	<i>ZNF703</i>	nonsynonymous SNV	NM_025069	exon2	A322T	chr8	37555383	G	A	0.0881
66	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon2	A108T	chr9	21971079	C	T	0.0809
66	<i>CDKN2A</i>	nonsynonymous SNV	NM_058195	exon2	P126L	chr9	21971024	G	A	0.1191
66	<i>PAK3</i>	nonsynonymous SNV	NM_002578	exon9	S171Y	chrX	110406186	C	A	0.1277

AA, amino acid; dbSNP, single nucleotide polymorphism database; VAF, variant allele frequency; NA, not assessable