patient #	Gene	mutation type	chr	nt	reference sequence	variant sequence	variant read fraction	aa	cDNA	total-read-depth
1	PBRM1	nonsense	3	52692301	C	A	0.30	p.E187*	c.559G>T	23
1	VHL	del-FS	3	10188302	GC	G	0.21	p.A149fs	c.445_446GC>G	33
2	TSC1	missense	9	135772842	CTT	GTC	0.20	p.K927D	c.2779_2781AAG>GAC	117
2	KDM5C	del-FS	X	53243877	GAC	G	0.31	p.V372fs	c.1114_1116GTC>C	61
2	PBRM1	del-FS	3	52668742	CTG	C	0.15	p.T392fs	c.1175_1177CAG>G	134
2	SETD2	del-infr	3	47147550	TCGA	T	0.24	p.R1592del	c.4773_4776TCGA>A	147
3	ATM	del-FS	11	108142076	ACT	A	0.26	p.D1007fs	c.3020_3022ACT>A	131
3	BAP1	nonsense	3	52440271	G	A	0.40	p.Q261*	c.781C>T	52
3	VHL	missense	3	10183787	C	T	0.40	p.P86S	c.256C>T	107
3	MTOR	missense	1	11217299	A	G	0.46	p.L1460P	c.4379T>C	48
3	PTEN	Ins-FS	10	89692816	T	TA	0.11	p.L100fs	c.300_300T>TA	142
4	KDM5C	del-FS	X	53226111	AC	A	0.54	p.V913fs	c.2737_2738GT>T	155
4	PBRM1	Ins-FS	3	52682399	A	AT	0.44	p.N258fs	c.774_774T>AT	126
4	VHL	splice	3	10183872	G	T	0.36	p.G114_splice	c.340_splice	59
5	SETD2	missense	3	47155393	C	T	0.25	p.G1563D	c.4688G>A	44
5	VHL	del-FS	3	10188230	CA	C	0.20	p.H125fs	c.373_374CA>C	86
6	TP53	nonsense	17	7578212	G	A	0.60	p.R213*	c.637C>T	43
6	VHL	del-FS	3	10188277	CA	C	0.60	p.L140fs	c.420_421CA>C	115
7	MTOR	missense	1	11217310	C	A	0.25	p.W1456C	c.4368G>T	83
7	ARID1A	del-FS	1	27057672	CG	C	0.16	p.S460fs	c.1380_1381CG>C	204
7	BAP1	del-FS	3	52437691	AT	A	0.24	p.N490fs	c.1469_1470AT>T	188
7	PBRM1	splice	3	52682358	A	T	0.17	p.K271_splice	c.813_splice	95
7	SETD2	del-FS	3	47162334	TTGAGAGAAGTCCCAACCTAAGTTTC	T	0.11	p.R1256fs	c.3767_3792GAAACTTAGGTTGGGACTTCTCTCAA>A	114
7	VHL	splice	3	10188196	A	T	0.23	p.G114_splice	c.341_splice	159
8	BAP1	splice	3	52442488	A	T	0.31	p.Q85_splice	c.255_splice	98
8	VHL	del-FS	3	10183729	GAACTCGCGCGAGC	G	0.14	p.V66fs	c.198_211GAACTCGCGCGAGC>G	141
9										
10	VHL	del-FS	3	10183711	GC	G	0.62	p.R60fs	c.180_181GC>G	65
11	BAP1	del-FS	3	52437882	CT	C	0.35	p.P426fs	c.1278_1279AG>G	43
11	VHL	nonsense	3	10183795	G	A	0.39	p.W88*	c.264G>A	33
12	BAP1	del-infr	3	52443610	GCAC	G	0.29	p.V27del	c.79_82GTGC>C	86
13	BAP1	del-FS	3	52437817	CA	C	0.45	p.L448fs	c.1343_1344TG>G	114
13	TP53	missense	17	7578403	C	G	0.41	p.C176S	c.527G>C	149
13	VHL	nonsense	3	10183825	C	G	0.41	p.Y98*	c.294C>G	86
13	CDKN2A	missense	9	21974738	G	T	0.35	p.A30E	c.89C>A	119
14	BAP1	del-FS	3	52436866	ACTTCAGCAGT	A	0.12	p.A634fs	c.1902_1912ACTGCTGAAGT>T	287
14	KDM5C	missense	X	53239895	C	T	0.36	p.E516K	c.1546G>A	44
14	VHL	missense	3	10183809	G	T	0.23	p.G93V	c.278G>T	94
15	PBRM1	del-FS	3	52651548	CT	C	0.37	p.K516fs	c.1547_1548AG>G	112
15	VHL	del-FS	3	10188312	CACTGCCA	C	0.11	p.T152fs	c.455_462CACTGCCA>C	96
16	BAP1	del-FS	3	52439191	TG	T	0.30	p.P350fs	c.1050_1051CA>A	57
16	VHL	del-FS	3	10183861	CA	C	0.35	p.H110fs	c.330_331CA>C	80
17	PBRM1	del-FS	3	52597505	GTT	G	0.57	p.K1293fs	c.3878_3880AAC>C	65
17	VHL	missense	3	10183797	T	C	0.50	p.L89P	c.266T>C	101
18	PTEN	missense	10	89717712	C	T	0.51	p.246P>L	c.647C>T	106
19										
20	VHL	splice	3	10188321	G	A	0.45	p.V155_splice	c.463_splice	95
21	PBRM1	splice	3	52668617	C	A	0.44	p.R434_splice	c.1301_splice	27
21	VHL	del-FS	3	10191492	GCC	G	0.48	p.C162fs	c.485_487GCC>G	46
22	MTOR	missense	1	11174395	A	T	0.26	p.L2427Q	c.7280T>A	47
22	VHL	del-FS	3	10183767	GC	G	0.30	p.R79fs	c.236_237GC>G	66
22	PIK3CA	missense	3	178952072	A	G	0.24	p.M1043V	c.3127A>G	113
23	SETD2	del-FS	3	47058706	ACAGT	A	0.15	p.Y2523fs	c.7568_7572ACTGT>T	62
23	TP53	missense	17	7578404	A	G	0.21	p.C176R	c.526T>C	42
23	VHL	missense	3	10191489	G	C	0.23	p.R161P	c.482G>C	35
23	GNB2L1	Ins-FS	5	180666432	A	AC	0.49	p.S153fs	c.457_457T>GT	35
24	BAP1	Ins-FS	3	52436387	C	CT	0.08	p.G703fs	c.2107_2107G>AG	97
24	TSC1	nonsense	9	135778003	C	T	0.08	p.Q794*	c.2380C>T	60
24	VHL	nonsense	3	10188207	G	A	0.28	p.W117*	c.350G>A	114
25	PTEN	missense	10	89711942	A	G	0.25	p.D187G	c.560A>G	71
26	BAP1	del-infr	3	52441985	AACCCTTGGTGAAGTCCTTCATGCG	A	0.36	p.RMKDFTKG114(	c.340_364CGCATGAAGGACTTCACCAAGGGTT>T	11
26	TSC1	del-FS	9	135781398	CT	C	0.60	p.A522fs	c.1566_1567AG>G	25
26	VHL	missense	3	10183797	T	A	0.44	p.L89H	c.266T>A	34
27	BAP1	nonsense	3	52438566	G	A	0.38	p.R385*	c.1153C>T	34
27	VHL	nonsense	3	10188215	A	T	0.46	p.R120*	c.358A>T	112
28	VHL	del-FS	3	10191554	TCGCTCTA	T	0.17	p.S183fs	c.547_554TCGCTCTA>T	71
29	JAK2	del-FS	9	5077550	TA	T	0.07	p.A654fs	c.1962_1963TA>T	54
30	KDM5C	splice	X	53241090	T	A	0.50	p.E375_splice	c.1123_splice	16
30	VHL	nonsense	3	10188290	C	T	0.57	p.Q145*	c.433C>T	75
30	PTEN	splice	10	89720876	G	C	0.25	p.K342_splice	c.1026_splice	20
31	VHL	nonsense	3	10183794	G	A	0.38	p.W88*	c.263G>A	61
32	PBRM1	nonsense	3	52584514	G	C	0.19	p.S1607*	c.4820C>G	47
32	SETD2	Ins-FS	3	47161843	C	CT	0.28	p.R1428fs	c.4283_4283G>AG	74
33	BAP1	missense	3	52441235	G	A	0.07	p.R179W	c.535C>T	82
33	VHL	del-FS	3	10183854	GC	G	0.11	p.R108fs	c.323_324GC>G	45
34	BAP1	missense	3	52441252	T	C	0.38	p.Y173C	c.518A>G	84
34	VHL	del-infr	3	10183748	CAGG	C	0.42	p.73_74QV>L	c.217_220CAGG>C	88
35	PBRM1	missense	3	52649461	A	C	0.38	p.D610E	c.1830T>G	68
35	SETD2	del-FS	3	47061264	CT	C	0.44	p.E2472fs	c.7416_7417AG>G	160
35	VHL	Ins-FS	3	10191472	G	GTA	0.34	p.V155fs	c.465_465G>GTA	98
35	PTEN	nonsense	10	89720808	T	G	0.45	p.L320*	c.959T>G	139
36	ATM	splice	11	108192025	TAGAGTAAAAG	T	0.35	p.R2151_splice	c.6453_splice	96
36	PBRM1	del-FS	3	52651412	TG	T	0.59	p.I561fs	c.1683_1684CA>A	203
36	VHL	Ins-FS	3	10191623	A	AT	0.58	p.I206fs	c.616_616A>AT	131
37	ARID1A	missense	1	27023909	G	A	0.57	p.A339T	c.1015G>A	14
37	ARID1A	del-FS	1	27057729	GC	G	0.06	p.Q479fs	c.1437_1438GC>G	114
37	ATM	del-FS	11	108201132	TCA	T	0.08	p.V2500fs	c.7499_7501TCA>T	53
37	SLITRK6	del-FS	13	86370262	TA	T	0.10	p.L127fs	c.381_382TA>A	41
38	KDM5C	splice	X	53227671	C	G	0.55	p.G839_splice	c.2516_splice	33
38	PBRM1	del-FS	3	52696222	AC	A	0.28	p.V152fs	c.454_455GT>T	68
38	VHL	del-FS	3	10183749	AGG	A	0.18	p.Q73fs	c.218_220AGG>A	92
39	BAP1	nonsense	3	52436360	G	A	0.15	p.Q712*	c.2134C>T	40
39	SETD2	del-FS	3	47165293	GA	G	0.12	p.S278fs	c.832_833TC>C	67
39	VHL	del-FS	3	10188251	CA	C	0.08	p.Q132fs	c.394_395CA>C	77
40	BAP1	del-FS	3	52437171	CCCCA	C	0.47	p.S623fs	c.1869_1873TGGGG>G	86
40	PBRM1	splice	3	52676063	TAC	T	0.05	p.R332_splice	c.996_splice	73
41	VHL	missense	3	10183725	C	G	0.48	p.S65W	c.194C>G	197

42	MTOR	missense	1	11184592	G	C	0.17	p.L2209V	c.6625C>G	35
42	BAP1	splice	3	52440844	C	T	0.21	p.G220_splice	c.659_splice	67
43	ARID1A	nonsense	1	27023957	C	T	0.13	p.Q355*	c.1063C>T	40
43	TSC2	del-FS	16	2110725	AG	A	0.26	p.R344fs	c.1030_1031AG>A	413
43	BAP1	del-FS	3	52437618	TG	T	0.28	p.A514fs	c.1542_1543CA>A	366
43	VHL	missense	3	10188200	C	T	0.20	p.H115Y	c.343C>T	174
44	ATM	missense	11	108142039	C	T	0.18	p.L995F	c.2983C>T	39
45	PBRM1	nonsense	3	52702606	G	A	0.20	p.Q98*	c.292C>T	80
45	TP53	missense	17	7578534	C	A	0.20	p.K132N	c.396G>T	282
45	VHL	Ins-FS	3	10188277	C	CA	0.18	p.L140fs	c.420_420C>CA	255
46	PBRM1	nonsense	3	52643360	C	A	0.18	p.E846*	c.2536G>T	88
46	TSC1	del-FS	9	135797268	AG	A	0.20	p.V200fs	c.600_601CT>T	167
46	TP53	missense	17	7578191	A	G	0.15	p.Y220H	c.658T>C	87
46	VHL	del-FS	3	10191613	ACAGGAGCG	A	0.07	p.T202fs	c.606_614ACAGGAGCG>A	140
47										
48	ARID1A	missense	1	27101460	A	T	0.07	p.H1581L	c.4742A>T	74
48	PBRM1	missense	3	52651282	G	A	0.47	p.S605F	c.1814C>T	49
48	VHL	missense	3	10183788	C	A	0.38	p.P86H	c.257C>A	61
49	KDM5C	splice	X	53227820	C	A	0.42	p.S790_splice	c.2369_splice	64
49	PBRM1	splice	3	52621366	TA	T	0.27	p.K1041_splice	c.3123_splice	130
49	SETD2	Ins-FS	3	47125702	G	GTT	0.27	p.N1856fs	c.5568_5568C>AAC	178
50	VHL	missense	3	10183752	T	G	0.36	p.V74G	c.221T>G	59
51	PBRM1	del-FS	3	52621523	TC	T	0.56	p.E990fs	c.2968_2969GA>A	255
51	SETD2	nonsense	3	47147594	C	A	0.61	p.E1578*	c.4732G>T	155
51	VHL	missense	3	10188248	A	T	0.60	p.N131Y	c.391A>T	277
52	PBRM1	splice	3	52712615	T	C	0.47	p.I47_splice	c.139_splice	83
52	VHL	del-FS	3	10183761	GCAATCGCAGTCC GC	G	0.23	p.C77fs	c.230_244GCAATCGCAGTC CGC>G	62
53	VHL	del-FS	3	10183860	ACAGC	A	0.46	p.H110fs	c.329_333ACAGC>A	52
53	PTEN	del-FS	10	89685288	TA	T	0.37	p.H61fs	c.183_184TA>T	60
54	BAP1	del-FS	3	52436408	TG	T	0.29	p.N695fs	c.2085_2086CA>A	258
54	PBRM1	missense	3	52651519	A	G	0.32	p.L526S	c.1577T>C	111
54	SETD2	missense	3	47144887	A	C	0.35	p.N1622K	c.4866T>G	128
54	VHL	del-FS	3	10188264	TTGTGCCA	T	0.17	p.F136fs	c.407_414TTGTGCCA>T	223
55	KDM5C	missense	X	53253927	G	T	0.46	p.P49T	c.145C>A	28
55	PBRM1	missense	3	52643744	A	G	0.47	p.Y718H	c.2152T>C	30
55	VHL	del-FS	3	10191553	GT	G	0.41	p.R182fs	c.546_547GT>G	32
56	PBRM1	nonsense	3	52702657	G	A	0.63	p.Q81*	c.241C>T	78
56	TSC1	splice	9	135801129	C	A	0.60	p.H71_splice	c.211-3C>A	125
56	VHL	del-FS	3	10183824	AC	A	0.52	p.Y98fs	c.293_294AC>A	44
57	TSC1	nonsense	9	135779172	G	A	0.24	p.R692*	c.2074C>T	25
57										
58	ATM	missense	11	108218008	G	C	0.34	p.G2863R	c.8587G>C	173
58	SETD2	del-FS	3	47098399	TGA	T	0.39	p.S2291fs	c.6873_6875TCA>A	167
58	PTEN	nonsense	10	89717615	C	T	0.36	p.Q214*	c.640C>T	142
59	SETD2	del-FS	3	47142979	ACT	A	0.15	p.E1661fs	c.4982_4984AGT>T	189
59	VHL	del-FS	3	10183767	GCA	G	0.09	p.R79fs	c.236_238GCA>G	109
59	PTEN	missense	10	89685314	T	A	0.08	p.L70H	c.209T>A	91
60										
61	BAP1	del-FS	3	52437696	TG	T	0.32	p.P488fs	c.1464_1465CA>A	217
61	VHL	del-FS	3	10188262	AT	A	0.39	p.L135fs	c.405_406AT>A	204
62	BAP1	missense	3	52442074	G	A	0.08	p.A92V	c.275C>T	107
62	VHL	nonsense	3	10183725	C	A	0.14	p.S65*	c.194C>A	87
63	SETD2	missense	3	47162144	G	A	0.48	p.P1328S	c.3982C>T	223
63	TP53	missense	17	7574018	G	A	0.43	p.R337C	c.1009C>T	117
63	PTEN	Ins-FS	10	89653789	T	TCCAA	0.37	p.Y29fs	c.87_87T>TCCAA	162
64	PBRM1	nonsense	3	52584530	G	A	0.61	p.Q1602*	c.4804C>T	167
64	SETD2	del-FS	3	47162355	GT	G	0.56	p.N1257fs	c.3770_3771AC>C	268
65										
66	PBRM1	nonsense	3	52643417	T	A	0.67	p.K827*	c.2479A>T	78
66	SETD2	splice	3	47059127	C	T	0.66	p.K2511_splice	c.7533_splice	128
67	SETD2	nonsense	3	47098949	G CTGGGCATCCTTGA	A	0.63	p.R2109*	c.6325C>T c.1043_1062TGGAACTCAA	142
67	TP53	del-FS	17	7573965	GTTCCA	C	0.51	p.L348fs	GGATGCCCAG>G	140
68	KDM5C	nonsense	X	53225148	C	A	0.15	p.E1024*	c.3070G>T	67
68	PBRM1	nonsense	3	52696214	C	A	0.07	p.G155*	c.463G>T	161
68	SETD2	nonsense	3	47162528	C	A	0.13	p.E1200*	c.3598G>T	134
68	TP53	missense	17	7578272	G	T	0.04	p.H193N	c.577C>A	203
68	VHL	missense	3	10191480	T	A	0.31	p.L158Q	c.473T>A	121
69	BAP1	nonsense	3	52439862	C	A	0.34	p.E284*	c.850G>T	122
70	PBRM1	del-FS	3	52584497	AT	A	0.27	p.K1612fs	c.4836_4837AT>T	208
70	VHL	Ins-FS	3	10183755	T	TC	0.24	p.I75fs	c.224_224T>TC	228
71	TP53	nonsense	17	7577579	G	T	0.26	p.Y234*	c.702C>A	375
71	VHL	del-FS	3	10183854	GC	G	0.22	p.R108fs	c.323_324GC>G	173
71	TSC1	nonsense	9	135779082	T	A	0.29	p.K722*	c.2164A>T	150
72	PBRM1	del-FS	3	52621505	CA	C	0.09	p.C996fs	c.2986_2987TG>G	45
73	PBRM1	del-FS	3	52643633	CT	C	0.28	p.K754fs	c.2262_2263AG>G	53
73	TP53	nonsense	17	7578212	G	A	0.27	p.R213*	c.637C>T	75
73	VHL	Ins-FS	3	10191582	C	CA	0.31	p.P192fs	c.575_575C>CA	67
73	TSC1	del-FS	9	135804204	AGCAT	A	0.31	p.M18fs	c.52_56ATGCT>T	88
74	KDM5C	del-FS	X	53245132	TG	T	0.13	p.P269fs	c.807_808CA>A	32
74	PBRM1	del-FS	3	52584808	AG	A	0.32	p.P1545fs	c.4634_4635CT>T	47
74	VHL	del-FS	3	10191550	CA	C	0.25	p.V181fs	c.543_544CA>C	48
74	MTOR	missense	1	11189845	G	C	0.33	p.F1888L	c.5664C>G	18
75	PBRM1	missense	3	52584493	A	T	0.50	p.I1614N	c.4841T>A	8
75	SETD2	nonsense	3	47164658	T	A	0.53	p.K490*	c.1468A>T	19
75	VHL	Ins-FS	3	10188281	G	GT	0.41	p.V142fs	c.424_424G>GT	41
75	PIK3CA	missense	3	178936082	G	A	0.13	p.E542K	c.1624G>A	54
76	PTEN	del-FS	10	89717727	GT	G	0.13	p.D252fs	c.752_753GT>G	93
76	PTEN	del-FS	10	89717729	GA	G	0.13	p.G251fs	c.754_755GA>G	91
77	BAP1	del-FS	3	52436383	AC	A	0.18	p.V704fs	c.2110_2111GT>T	185
77	PBRM1	del-FS	3	52620470	GA	G	0.22	p.S1119fs	c.3357_3358TC>C	69
77	VHL	nonsense	3	10188261	T	A	0.17	p.L135*	c.404T>A	78
77	TSC1	nonsense	9	135778013	C	G	0.07	p.Y790*	c.2370C>G	80
78	KDM5C	Ins-FS	X	53224544	C	CAGCT	0.46	p.V1057fs	c.3169_3169G>AGCTG	80
78	SETD2	nonsense	3	47147534	G	A	0.16	p.R1598*	c.4792C>T	140
78	VHL	missense	3	10188240	T	C	0.42	p.L128P	c.383T>C	147
79	PBRM1	nonsense	3	52696199	C	A	0.22	p.E160*	c.478G>T	79
79	VHL	del-infr	3	10183751	GTCATCTTCT	G	0.11	p.74_77VIFC>G	c.220_229GTCATCTTCT>G	106
79	TSC1	del-FS	9	135797316	AC	A	0.18	p.V184fs	c.552_553GT>T	73