

Data Sheet

Product Name: CancerSeq AMS Paraffin Tissue Curl

Catalog No.: T2235152-AC

Lot No.: C202105

Species: Human Mouse Rat Monkey (Rh) Guinea Pig Porcine
 Bovine Hamster Dog Monkey (Cy) Rabbit Plant

Tissue Type: Normal Adult Fetal Tumor Disease Cell line

Tissue Name: Lung

Donor Information:

Male: _____ year(s) old
Female: 60 year(s) old

Pathological Diagnosis: Adenocarcinoma

Tumor Size: N/A

Location: left lower lobe

Components:

1. 5 curls per package
2. Certificate of Analysis

FOR IN VITRO RESEARCH USE ONLY

APPROVED BY: _____



35 Genes Targeted

AKT1	FGFR2	MAP2K1
ALK	FGFR3	MAP2K2
AR	GNA11	MET
BRAF	GNAQ	MTOR
CDK4	HRAS	NRAS
CTNNB1	IDH1	PDGFRA
DDR2	IDH2	PIK3CA
EGFR	JAK1	RAF1
ERBB2	JAK2	RET
ERBB3	JAK3	ROS1
ERBB4	KIT	SMO
ESR1	KRAS	

Details of Variants

Column Header	Definition
Gene ID	The Gene symbol for the gene located at this position
Chrom	The chromosome where the target region is located
Position	The genomic position of the variant in the build of the genome database
Ref	The reference allele of the variation
Variant	The alternate allele of the variation
Allele Call	The type of variation, either heterozygous or homozygous
Frequency	The percentage of reads for the sample that includes the variant
Quality	The quality score of the variant
Type	The variant type, which can be SNP, MNP, Ins, Del, and Complex
Allele Source	Listed as Hotspot for alleles found within the hotspots sequencing file and Novel for all other alleles
Coverage	The number of reads that cover the region
Allele Name	The allele name that is defined within the hotspots sequencing file (if Novel allele, then there is no name)

C202105

Gene ID	Chrom	Position	Ref	Variant	Allele Call	Frequency	Quality	Type	Allele Source	Coverage	Allele Name
MTOR	chr1	11174400	G	A	Heterozygous	1.1	44	SNP	Novel	2571	---
MTOR	chr1	11174426	C	T	Heterozygous	1.2	18	SNP	Novel	2620	---
MTOR	chr1	11174437	C	T	Heterozygous	1.5	38	SNP	Novel	2654	---
MTOR	chr1	11174466	C	T	Heterozygous	1.3	27	SNP	Novel	2632	---
MTOR	chr1	11184557	G	A	Heterozygous	1.1	15	SNP	Novel	2400	---
MTOR	chr1	11184566	C	T	Heterozygous	1.4	23	SNP	Novel	2332	---
MTOR	chr1	11184567	C	T	Heterozygous	1.5	37	SNP	Novel	2406	---
MTOR	chr1	11188007	G	A	Heterozygous	0.9	36	SNP	Novel	3154	---
MTOR	chr1	11188013	C	T	Heterozygous	1.3	27	SNP	Novel	3236	---
MTOR	chr1	11188096	C	T	Heterozygous	1	10	SNP	Novel	3223	---
MTOR	chr1	11188172	G	A	Heterozygous	1	22	SNP	Novel	1357	---
MTOR	chr1	11188182	G	A	Heterozygous	1.3	31	SNP	Novel	1339	---
MTOR	chr1	11188216	G	A	Heterozygous	1.6	29	SNP	Novel	1392	---
MTOR	chr1	11188221	G	A	Heterozygous	1.6	30	SNP	Novel	1374	---
MTOR	chr1	11188225	G	A	Heterozygous	2.4	80	SNP	Novel	1394	---
MTOR	chr1	11188229	G	A	Heterozygous	0.8	21	SNP	Novel	1382	---
MTOR	chr1	11188234	G	A	Heterozygous	1.4	22	SNP	Novel	1397	---
MTOR	chr1	11189794	C	T	Heterozygous	1.1	12	SNP	Novel	2036	---
MTOR	chr1	11189820	C	T	Heterozygous	1.2	18	SNP	Novel	2027	---
MTOR	chr1	11189866	C	T	Heterozygous	1.4	29	SNP	Novel	2022	---
MTOR	chr1	11190851	G	A	Heterozygous	2	220	SNP	Novel	1491	---
MTOR	chr1	11190869	G	A	Heterozygous	1.4	23	SNP	Novel	1561	---
MTOR	chr1	11217247	C	T	Heterozygous	1.2	25	SNP	Novel	3999	---
MTOR	chr1	11217258	G	A	Heterozygous	1	10	SNP	Novel	4000	---
MTOR	chr1	11217264	C	T	Heterozygous	1	13	SNP	Novel	4000	---
JAK1	chr1	65310468	G	A	Heterozygous	1.3	124	SNP	Novel	3424	---
JAK1	chr1	65310486	G	A	Heterozygous	1	12	SNP	Novel	3457	---
JAK1	chr1	65310489	T	C	Heterozygous	47.5	23440	SNP	Novel	3401	---
JAK1	chr1	65310517	C	T	Heterozygous	1	9	SNP	Hotspot	3425	COSM41751
JAK1	chr1	65312292	C	T	Heterozygous	0.9	17	SNP	Novel	1260	---
JAK1	chr1	65312355	C	T	Heterozygous	1.2	15	SNP	Novel	1586	---
JAK1	chr1	65312380	G	A	Heterozygous	1.7	36	SNP	Novel	1572	---
NRAS	chr1	115252280	C	T	Heterozygous	1.3	26	SNP	Novel	2709	---
NRAS	chr1	115258774	T	C	Heterozygous	2.9	177	SNP	Novel	2252	---
DDR2	chr1	162724526	G	A	Heterozygous	1.7	45	SNP	Novel	1925	---

DDR2	chr1	162724551	G	A	Heterozygous	1.4	27	SNP	Novel	1905	---
ALK	chr2	29416082	G	A	Heterozygous	1.3	17	SNP	Novel	1372	---
ALK	chr2	29416112	C	T	Heterozygous	1.8	40	SNP	Novel	1383	---
ALK	chr2	29416148	C	T	Heterozygous	1.3	18	SNP	Novel	1371	---
ALK	chr2	29416198	G	A	Heterozygous	0.9	23	SNP	Novel	1293	---
ALK	chr2	29416332	C	T	Heterozygous	1.5	26	SNP	Novel	1565	---
ALK	chr2	29416340	C	T	Heterozygous	1.8	43	SNP	Novel	1573	---
ALK	chr2	29416366	-	C	Homozygous	100	12397	INS	Novel	872	---
ALK	chr2	29416366	G	C	Homozygous	100	33523	SNP	Novel	1616	---
ALK	chr2	29416368	C	T	Heterozygous	1.5	26	SNP	Novel	1646	---
ALK	chr2	29416392	G	A	Heterozygous	1.1	11	SNP	Novel	1665	---
ALK	chr2	29416436	G	A	Heterozygous	1.1	47	SNP	Novel	1625	---
ALK	chr2	29416458	G	A	Heterozygous	1.2	14	SNP	Novel	1616	---
ALK	chr2	29416543	G	A	Heterozygous	1.6	148	SNP	Novel	1465	---
ALK	chr2	29416566	C	T	Heterozygous	0.9	21	SNP	Novel	1528	---
ALK	chr2	29416572	T	C	Heterozygous	99	31871	SNP	Novel	1576	---
ALK	chr2	29416654	C	T	Heterozygous	1.2	18	SNP	Novel	1581	---
ALK	chr2	29416656	C	T	Heterozygous	1.3	40	SNP	Novel	1575	---
ALK	chr2	29420436	C	T	Heterozygous	1.1	16	SNP	Novel	3929	---
ALK	chr2	29436847	C	T	Heterozygous	1.3	24	SNP	Novel	2195	---
ALK	chr2	29436886	C	T	Heterozygous	1.2	16	SNP	Novel	2226	---
ALK	chr2	29436948	C	T	Heterozygous	1	10	SNP	Novel	2240	---
ALK	chr2	29443602	C	T	Heterozygous	1.1	10	SNP	Novel	1653	---
ALK	chr2	29443608	G	A	Heterozygous	1.1	11	SNP	Novel	1659	---
ALK	chr2	29443644	G	A	Heterozygous	1.2	63	SNP	Novel	1691	---
ALK	chr2	29443667	C	T	Heterozygous	0.8	24	SNP	Novel	1727	---
ALK	chr2	29443671	G	A	Heterozygous	1.7	42	SNP	Novel	1755	---
ALK	chr2	29445273	G	A	Heterozygous	1	12	SNP	Novel	3997	---
ALK	chr2	29445297	G	A	Heterozygous	1.2	329	SNP	Novel	3820	---
ALK	chr2	29445458	G	T	Heterozygous	50.4	30211	SNP	Novel	3987	---
ALK	chr2	29445465	C	T	Heterozygous	1	11	SNP	Novel	3944	---
IDH1	chr2	209113112	C	T	Heterozygous	1	10	SNP	Hotspot	3998	COSM28746
IDH1	chr2	209113174	G	A	Heterozygous	1.3	30	SNP	Novel	3996	---
ERBB4	chr2	212488779	G	A	Heterozygous	1	10	SNP	Novel	3997	---
RAF1	chr3	12632370	G	A	Heterozygous	1	13	SNP	Novel	3990	---
RAF1	chr3	12632424	C	T	Heterozygous	1	13	SNP	Novel	4000	---
CTNNB1	chr3	41266078	G	A	Heterozygous	1.3	16	SNP	Novel	1232	---
CTNNB1	chr3	41266104	G	A	Heterozygous	0.8	10	SNP	Hotspot	1240	COSM5671

CTNNB1	chr3	41266115	G	A	Heterozygous	1.1	11	SNP	Novel	1241	---
CTNNB1	chr3	41266146	G	A	Heterozygous	1.6	29	SNP	Novel	1227	---
PIK3CA	chr3	178916781	C	T	Heterozygous	1	25	SNP	Novel	1548	---
PIK3CA	chr3	178916894	T	C	Heterozygous	0.8	19	SNP	Novel	1975	---
PIK3CA	chr3	178916936	G	A	Heterozygous	1.5	32	SNP	Hotspot	1994	COSM27497
PIK3CA	chr3	178921476	G	A	Heterozygous	1.2	16	SNP	Novel	2129	---
PIK3CA	chr3	178921489	C	T	Heterozygous	1	25	SNP	Novel	2091	---
PIK3CA	chr3	178922261	C	T	Heterozygous	1.6	31	SNP	Novel	1605	---
PIK3CA	chr3	178922314	C	T	Heterozygous	1.2	16	SNP	Novel	1837	---
PIK3CA	chr3	178922334	G	A	Heterozygous	1.4	24	SNP	Novel	1824	---
PIK3CA	chr3	178922364	G	A	Heterozygous	1.2	16	SNP	Hotspot	1638	COSM1041478
PIK3CA	chr3	178927943	G	A	Heterozygous	1.1	11	SNP	Novel	2085	---
PIK3CA	chr3	178927981	G	A	Heterozygous	1	10	SNP	Novel	2151	---
PIK3CA	chr3	178928013	G	A	Heterozygous	1.3	23	SNP	Novel	2122	---
PIK3CA	chr3	178936094	C	T	Heterozygous	1	10	SNP	Novel	1631	---
PIK3CA	chr3	178936099	G	A	Heterozygous	1.2	14	SNP	Novel	1622	---
PIK3CA	chr3	178938836	G	A	Heterozygous	1.1	12	SNP	Novel	1588	---
PIK3CA	chr3	178938855	G	A	Heterozygous	1.1	10	SNP	Novel	1600	---
PIK3CA	chr3	178938919	C	T	Heterozygous	1.1	13	SNP	Novel	1741	---
PIK3CA	chr3	178952013	G	A	Heterozygous	1.2	15	SNP	Novel	1979	---
FGFR3	chr4	1797217	G	A	Heterozygous	1.5	25	SNP	Novel	1413	---
FGFR3	chr4	1797250	G	A	Heterozygous	2.5	88	SNP	Novel	1421	---
FGFR3	chr4	1797255	G	A	Heterozygous	1	30	SNP	Novel	1409	---
FGFR3	chr4	1797287	G	A	Heterozygous	1.5	24	SNP	Novel	1434	---
FGFR3	chr4	1797303	G	A	Heterozygous	1.2	13	SNP	Novel	1436	---
FGFR3	chr4	1797313	C	T	Heterozygous	1.1	47	SNP	Novel	1436	---
FGFR3	chr4	1797319	C	T	Heterozygous	1.2	15	SNP	Novel	1453	---
FGFR3	chr4	1797746	C	T	Heterozygous	0.9	86	SNP	Novel	3971	---
FGFR3	chr4	1801126	G	A	Heterozygous	1.1	12	SNP	Novel	2009	---
FGFR3	chr4	1801154	C	T	Heterozygous	1.1	13	SNP	Novel	2056	---
FGFR3	chr4	1801187	G	A	Heterozygous	1.4	151	SNP	Novel	1925	---
FGFR3	chr4	1801212	C	T	Heterozygous	1.1	12	SNP	Novel	2015	---
FGFR3	chr4	1801227	G	A	Heterozygous	1.2	17	SNP	Novel	1900	---
FGFR3	chr4	1805820	C	T	Heterozygous	1.3	22	SNP	Novel	2266	---
FGFR3	chr4	1805826	C	T	Heterozygous	1.4	30	SNP	Novel	2273	---
FGFR3	chr4	1805863	G	A	Heterozygous	1.2	18	SNP	Novel	2240	---
FGFR3	chr4	1805885	C	T	Heterozygous	1.5	138	SNP	Novel	2208	---
FGFR3	chr4	1806095	G	A	Heterozygous	1.1	15	SNP	Novel	3998	---

FGFR3	chr4	1806133	C	T	Heterozygous	1.1	16	SNP	Novel	4000	---
FGFR3	chr4	1806134	C	T	Heterozygous	1.1	18	SNP	Novel	3997	---
FGFR3	chr4	1807894	G	A	Homozygous	99.7	83322	SNP	Novel	3999	---
FGFR3	chr4	1809239	G	T	Heterozygous	1.3	18	SNP	Novel	1740	---
FGFR3	chr4	1809278	C	T	Heterozygous	1.2	75	SNP	Novel	1767	---
FGFR3	chr4	1809304	C	T	Heterozygous	0.9	94	SNP	Novel	2004	---
FGFR3	chr4	1809316	C	T	Heterozygous	1	51	SNP	Novel	2009	---
FGFR3	chr4	1809332	G	A	Heterozygous	1.3	23	SNP	Novel	2030	---
FGFR3	chr4	1809333	G	A	Heterozygous	1.5	32	SNP	Novel	2028	---
PDGFRA	chr4	55097718	C	T	Heterozygous	0.8	34	SNP	Novel	2711	---
PDGFRA	chr4	55097730	G	A	Heterozygous	1.1	12	SNP	Novel	2740	---
PDGFRA	chr4	55097742	C	T	Heterozygous	1	13	SNP	Novel	2676	---
PDGFRA	chr4	55097749	C	T	Heterozygous	1.4	32	SNP	Novel	2688	---
PDGFRA	chr4	55097757	C	T	Heterozygous	1.2	20	SNP	Novel	2742	---
PDGFRA	chr4	55097811	C	T	Heterozygous	1	47	SNP	Novel	2740	---
PDGFRA	chr4	55097826	G	A	Heterozygous	1.4	32	SNP	Novel	2747	---
PDGFRA	chr4	55097835	G	C	Heterozygous	63.2	28109	SNP	Novel	2726	---
PDGFRA	chr4	55097839	G	A	Heterozygous	1.2	18	SNP	Novel	2728	---
PDGFRA	chr4	55104322	C	T	Heterozygous	1.3	26	SNP	Novel	2506	---
PDGFRA	chr4	55104374	C	T	Heterozygous	1.1	15	SNP	Novel	2508	---
PDGFRA	chr4	55121601	C	T	Heterozygous	1.4	29	SNP	Novel	2015	---
PDGFRA	chr4	55121604	G	A	Heterozygous	1.6	39	SNP	Novel	2007	---
PDGFRA	chr4	55123696	G	A	Heterozygous	1.2	16	SNP	Novel	2007	---
PDGFRA	chr4	55123704	G	A	Heterozygous	1.2	16	SNP	Novel	2015	---
PDGFRA	chr4	55123780	C	T	Heterozygous	1.4	26	SNP	Novel	2019	---
PDGFRA	chr4	55123809	C	T	Heterozygous	1	34	SNP	Novel	1976	---
PDGFRA	chr4	55133668	C	T	Heterozygous	0.8	22	SNP	Novel	3618	---
PDGFRA	chr4	55133700	G	A	Heterozygous	1.3	29	SNP	Novel	3634	---
PDGFRA	chr4	55133726	T	G	Heterozygous	46.9	25045	SNP	Novel	3674	---
PDGFRA	chr4	55140988	C	T	Heterozygous	1.4	34	SNP	Novel	2414	---
PDGFRA	chr4	55141011	C	T	Heterozygous	0.9	27	SNP	Novel	2395	---
PDGFRA	chr4	55141030	G	A	Heterozygous	1.2	17	SNP	Novel	2385	---
PDGFRA	chr4	55141055	AG	GA	Heterozygous	1.3	47301	MNP	Novel	2315	---
PDGFRA	chr4	55141055	A	G	Heterozygous	98.3	47301	SNP	Novel	2315	---
PDGFRA	chr4	55152025	G	A	Heterozygous	1	10	SNP	Novel	4000	---
PDGFRA	chr4	55152039	-	T	Heterozygous	0.7	98	INS	Novel	2114	---
PDGFRA	chr4	55152040	C	T	Heterozygous	47.2	27645	SNP	Novel	3999	---
PDGFRA	chr4	55152135	G	A	Heterozygous	1.2	30	SNP	Novel	4000	---

PDGFRA	chr4	55152145	C	T	Heterozygous	0.8	26	SNP	Novel	3943	---
KIT	chr4	55529200	-	A	Heterozygous	49.6	7007	INS	Novel	1094	---
KIT	chr4	55566266	G	A	Homozygous	99.7	14743	SNP	Novel	730	---
KIT	chr4	55573051	G	A	Heterozygous	2.1	86	SNP	Novel	1358	---
KIT	chr4	55593605	G	A	Heterozygous	1.3	110	SNP	Novel	1343	---
KIT	chr4	55593639	G	A	Heterozygous	0.9	33	SNP	Novel	1356	---
KIT	chr4	55593651	C	T	Heterozygous	1	62	SNP	Novel	1380	---
KIT	chr4	55593672	C	T	Heterozygous	1.2	13	SNP	Novel	1439	---
KIT	chr4	55594177	C	T	Heterozygous	1.1	15	SNP	Novel	2922	---
KIT	chr4	55594247	C	T	Heterozygous	1.2	23	SNP	Novel	3027	---
KIT	chr4	55598895	G	A	Heterozygous	1.8	43	SNP	Novel	1575	---
ESR1	chr6	152419976	C	T	Heterozygous	0.9	48	SNP	Novel	3042	---
ESR1	chr6	152420001	C	T	Heterozygous	1.4	34	SNP	Novel	3054	---
EGFR	chr7	55198979	T	C	Heterozygous	1.3	33	SNP	Novel	3701	---
EGFR	chr7	55211083	G	A	Heterozygous	1.1	17	SNP	Novel	3977	---
EGFR	chr7	55219934	C	T	Heterozygous	1	10	SNP	Novel	3999	---
EGFR	chr7	55219938	C	T	Heterozygous	1.4	42	SNP	Novel	3997	---
EGFR	chr7	55219941	G	A	Heterozygous	1	10	SNP	Novel	3981	---
EGFR	chr7	55221798	C	T	Heterozygous	1.9	72	SNP	Novel	2572	---
EGFR	chr7	55221878	C	T	Heterozygous	1.5	38	SNP	Novel	2823	---
EGFR	chr7	55221897	C	T	Heterozygous	1.3	28	SNP	Novel	2794	---
EGFR	chr7	55227973	G	A	Heterozygous	1.2	17	SNP	Novel	1601	---
EGFR	chr7	55228053	A	-	Homozygous	100	30849	DEL	Novel	1576	---
EGFR	chr7	55233023	C	T	Heterozygous	1.1	20	SNP	Novel	4000	---
EGFR	chr7	55241639	G	A	Heterozygous	1.1	18	SNP	Novel	4000	---
EGFR	chr7	55241647	C	T	Heterozygous	1	13	SNP	Novel	3962	---
EGFR	chr7	55242456	C	T	Heterozygous	1.7	41	SNP	Novel	1682	---
EGFR	chr7	55242482	C	T	Heterozygous	0.9	57	SNP	Novel	1581	---
EGFR	chr7	55248978	C	T	Heterozygous	1.9	205	SNP	Novel	1774	---
EGFR	chr7	55249016	C	T	Heterozygous	1.2	150	SNP	Novel	1698	---
EGFR	chr7	55249021	C	T	Heterozygous	2	61	SNP	Novel	1770	---
EGFR	chr7	55249028	C	T	Heterozygous	1.4	27	SNP	Novel	1797	---
EGFR	chr7	55249094	C	T	Heterozygous	1.1	12	SNP	Novel	1831	---
EGFR	chr7	55259454	C	T	Heterozygous	0.9	22	SNP	Novel	3968	---
EGFR	chr7	55259474	G	A	Heterozygous	1.1	16	SNP	Novel	4000	---
EGFR	chr7	55259477	G	A	Heterozygous	1.1	14	SNP	Novel	3977	---
EGFR	chr7	55259485	C	T	Heterozygous	1.3	30	SNP	Novel	3999	---
EGFR	chr7	55259501	C	T	Heterozygous	1	12	SNP	Novel	4000	---

MET	chr7	116313545	G	A	Heterozygous	1.4	21	SNP	Novel	1343	---
MET	chr7	116339373	C	T	Heterozygous	1.1	14	SNP	Novel	2841	---
MET	chr7	116339399	G	A	Heterozygous	1.6	49	SNP	Novel	2851	---
MET	chr7	116339403	G	A	Heterozygous	1.1	14	SNP	Novel	2846	---
MET	chr7	116339405	G	A	Heterozygous	1	11	SNP	Novel	2846	---
MET	chr7	116340219	G	A	Heterozygous	1	14	SNP	Novel	3967	---
MET	chr7	116403149	C	T	Heterozygous	1.6	41	SNP	Novel	1956	---
MET	chr7	116403223	C	T	Heterozygous	1.4	24	SNP	Novel	1905	---
MET	chr7	116412054	G	A	Heterozygous	1.8	45	SNP	Novel	1312	---
MET	chr7	116415116	G	A	Heterozygous	1.1	16	SNP	Novel	2836	---
MET	chr7	116434484	G	A	Heterozygous	1.1	16	SNP	Novel	2824	---
MET	chr7	116434502	G	A	Heterozygous	1.1	17	SNP	Novel	2853	---
MET	chr7	116434535	G	A	Heterozygous	1.1	15	SNP	Novel	2876	---
MET	chr7	116434542	G	A	Heterozygous	1	109	SNP	Novel	2859	---
SMO	chr7	128845517	G	A	Heterozygous	1	10	SNP	Novel	2457	---
SMO	chr7	128845551	C	T	Heterozygous	1.1	15	SNP	Novel	2492	---
SMO	chr7	128845562	G	A	Heterozygous	0.8	21	SNP	Novel	2514	---
SMO	chr7	128845574	C	T	Heterozygous	1.6	232	SNP	Novel	2496	---
SMO	chr7	128845577	G	A	Heterozygous	1.5	44	SNP	Novel	2653	---
SMO	chr7	128845603	C	T	Heterozygous	1.1	14	SNP	Novel	2657	---
SMO	chr7	128849131	C	T	Heterozygous	1.2	19	SNP	Novel	2988	---
SMO	chr7	128849143	C	T	Heterozygous	1.1	14	SNP	Novel	2996	---
SMO	chr7	128849188	C	T	Heterozygous	1.1	15	SNP	Novel	3010	---
BRAF	chr7	140434447	G	A	Heterozygous	1.4	35	SNP	Novel	3993	---
BRAF	chr7	140453137	C	T	Heterozygous	1.3	15	SNP	Hotspot	1353	COSM1130
BRAF	chr7	140453146	G	A	Heterozygous	1.1	10	SNP	Novel	1349	---
BRAF	chr7	140453158	C	T	Heterozygous	1.3	16	SNP	Novel	1347	---
BRAF	chr7	140476720	C	T	Heterozygous	1.3	22	SNP	Novel	2342	---
BRAF	chr7	140476743	C	T	Heterozygous	1.1	12	SNP	Novel	2330	---
BRAF	chr7	140481411	C	T	Heterozygous	1	11	SNP	Hotspot	4000	COSM453
BRAF	chr7	140482877	G	A	Heterozygous	1.2	17	SNP	Novel	2298	---
BRAF	chr7	140501253	A	G	Heterozygous	1.9	114	SNP	Novel	4000	---
GNAQ	chr9	80409378	C	T	Heterozygous	1	10	SNP	Novel	2224	---
GNAQ	chr9	80409385	G	A	Heterozygous	1.6	43	SNP	Novel	2228	---
GNAQ	chr9	80409394	C	T	Heterozygous	1.9	69	SNP	Novel	2237	---
GNAQ	chr9	80409405	G	A	Heterozygous	1.3	23	SNP	Novel	2243	---
GNAQ	chr9	80409426	C	T	Heterozygous	1.2	16	SNP	Novel	2238	---
GNAQ	chr9	80409456	A	G	Heterozygous	0.8	77	SNP	Novel	2186	---

GNAQ	chr9	80412464	G	A	Heterozygous	0.9	39	SNP	Novel	3911	---
GNAQ	chr9	80412543	G	A	Heterozygous	1	11	SNP	Novel	3976	---
RET	chr10	43609119	C	T	Heterozygous	1	10	SNP	Novel	4000	---
RET	chr10	43609145	C	T	Heterozygous	1.6	194	SNP	Novel	3848	---
RET	chr10	43609888	C	T	Heterozygous	1.2	16	SNP	Novel	2015	---
RET	chr10	43609921	C	T	Heterozygous	1	93	SNP	Novel	1940	---
RET	chr10	43609953	C	T	Heterozygous	1.3	20	SNP	Novel	2151	---
RET	chr10	43609962	C	T	Heterozygous	1.2	17	SNP	Novel	2169	---
RET	chr10	43613843	G	T	Heterozygous	48.4	28387	SNP	Novel	3963	---
RET	chr10	43615576	G	A	Heterozygous	1.3	43	SNP	Novel	1818	---
RET	chr10	43615593	C	T	Heterozygous	1.1	13	SNP	Novel	1789	---
RET	chr10	43615606	G	A	Heterozygous	1.8	47	SNP	Novel	1810	---
RET	chr10	43615645	G	A	Heterozygous	1.7	39	SNP	Novel	1748	---
RET	chr10	43615663	C	T	Heterozygous	0.8	21	SNP	Novel	1451	---
RET	chr10	43615672	G	A	Heterozygous	1.3	17	SNP	Novel	1485	---
RET	chr10	43615673	G	A	Heterozygous	1.1	12	SNP	Novel	1482	---
RET	chr10	43617386	C	T	Heterozygous	1.4	25	SNP	Novel	1775	---
FGFR2	chr10	123247576	C	T	Heterozygous	1.3	32	SNP	Novel	4000	---
FGFR2	chr10	123257989	C	T	Heterozygous	1.1	18	SNP	Novel	4000	---
FGFR2	chr10	123274745	C	T	Heterozygous	1.7	47	SNP	Novel	2063	---
FGFR2	chr10	123274765	C	T	Heterozygous	1	62	SNP	Novel	2048	---
FGFR2	chr10	123276929	G	A	Heterozygous	2.3	172	SNP	Novel	3853	---
FGFR2	chr10	123279613	G	A	Heterozygous	1.2	25	SNP	Novel	3995	---
FGFR2	chr10	123279644	G	A	Heterozygous	1.1	20	SNP	Novel	3998	---
FGFR2	chr10	123279645	G	A	Heterozygous	1.1	18	SNP	Novel	3997	---
FGFR2	chr10	123279669	G	A	Heterozygous	1	12	SNP	Novel	3995	---
FGFR2	chr10	123284057	C	T	Heterozygous	1.1	16	SNP	Novel	2527	---
FGFR2	chr10	123284060	G	A	Heterozygous	1.1	16	SNP	Novel	2532	---
FGFR2	chr10	123284079	C	T	Heterozygous	1.3	22	SNP	Novel	2537	---
FGFR2	chr10	123284163	G	A	Heterozygous	1.2	20	SNP	Novel	2462	---
FGFR2	chr10	123312200	C	T	Heterozygous	1.3	18	SNP	Novel	2056	---
FGFR2	chr10	123312238	C	T	Heterozygous	1.1	11	SNP	Novel	2085	---
FGFR2	chr10	123312240	G	A	Heterozygous	1.2	17	SNP	Novel	2087	---
HRAS	chr11	533900	C	T	Heterozygous	1.5	39	SNP	Novel	2872	---
HRAS	chr11	533906	C	T	Heterozygous	1.9	80	SNP	Novel	2870	---
KRAS	chr12	25380342	G	A	Heterozygous	1.5	58	SNP	Novel	3999	---
KRAS	chr12	25386033	C	T	Heterozygous	2.2	14	SNP	Novel	139	---
KRAS	chr12	25386041	C	T	Heterozygous	2.8	20	SNP	Novel	143	---

KRAS	chr12	25386050	A	G	Heterozygous	2.1	14	SNP	Novel	143	---
KRAS	chr12	25386054	C	G	Heterozygous	8.8	95	SNP	Novel	160	---
KRAS	chr12	25386062	-	A	Heterozygous	51.5	512	INS	Novel	167	---
KRAS	chr12	25386063	C	A	Heterozygous	51.8	1176	SNP	Novel	168	---
KRAS	chr12	25386067	C	T	Heterozygous	1.8	38	SNP	Novel	169	---
KRAS	chr12	25386091	T	C	Heterozygous	1.1	12	SNP	Novel	184	---
KRAS	chr12	25386966	C	T	Heterozygous	1.2	16	SNP	Novel	1708	---
KRAS	chr12	25387015	C	T	Heterozygous	1.2	14	SNP	Novel	1717	---
KRAS	chr12	25387190	G	A	Heterozygous	1.1	27	SNP	Novel	1541	---
KRAS	chr12	25387214	G	A	Heterozygous	1.7	97	SNP	Novel	1567	---
KRAS	chr12	25387266	G	-	Heterozygous	1.1	19	DEL	Novel	1323	---
KRAS	chr12	25391235	G	A	Heterozygous	1.4	25	SNP	Novel	1673	---
KRAS	chr12	25391239	G	C	Heterozygous	57	14895	SNP	Novel	1662	---
KRAS	chr12	25398208	C	T	Heterozygous	1	10	SNP	Novel	2344	---
KRAS	chr12	25400171	G	A	Heterozygous	1.4	19	SNP	Novel	1057	---
KRAS	chr12	25400206	G	T	Heterozygous	46.3	7010	SNP	Novel	1059	---
ERBB3	chr12	56477635	G	A	Heterozygous	1.2	107	SNP	Novel	3505	---
ERBB3	chr12	56477657	G	A	Heterozygous	1.2	26	SNP	Novel	3555	---
ERBB3	chr12	56477694	A	T	Homozygous	99.2	71320	SNP	Novel	3443	---
ERBB3	chr12	56481574	C	T	Heterozygous	1.1	17	SNP	Novel	3827	---
ERBB3	chr12	56481634	C	T	Heterozygous	1.6	61	SNP	Novel	3781	---
ERBB3	chr12	56481660	C	T	Heterozygous	1.2	22	SNP	Hotspot	3879	COSM1242239
ERBB3	chr12	56481662	G	A	Heterozygous	1.1	76	SNP	Novel	3845	---
ERBB3	chr12	56481676	C	T	Heterozygous	0.8	26	SNP	Novel	3907	---
ERBB3	chr12	56482558	C	T	Heterozygous	1.3	24	SNP	Novel	2173	---
ERBB3	chr12	56482564	C	T	Heterozygous	1.2	19	SNP	Novel	2174	---
ERBB3	chr12	56482642	G	A	Heterozygous	1.3	20	SNP	Novel	2154	---
CDK4	chr12	58142059	G	A	Heterozygous	1.1	10	SNP	Novel	1049	---
CDK4	chr12	58142078	G	A	Heterozygous	1.2	13	SNP	Novel	1149	---
CDK4	chr12	58142086	G	A	Heterozygous	1.6	29	SNP	Novel	1231	---
CDK4	chr12	58142114	G	A	Heterozygous	1.3	18	SNP	Novel	1343	---
CDK4	chr12	58142126	G	A	Heterozygous	1.1	10	SNP	Novel	1339	---
CDK4	chr12	58142127	G	A	Heterozygous	1.3	16	SNP	Novel	1338	---
CDK4	chr12	58142138	G	A	Heterozygous	1.1	11	SNP	Novel	1332	---
CDK4	chr12	58142255	G	A	Heterozygous	1.2	14	SNP	Novel	1529	---
CDK4	chr12	58142275	C	T	Heterozygous	1.5	46	SNP	Novel	1515	---
CDK4	chr12	58142309	C	T	Heterozygous	1.3	17	SNP	Novel	1585	---
CDK4	chr12	58142949	C	T	Heterozygous	1	10	SNP	Novel	4000	---

CDK4	chr12	58143278	G	A	Heterozygous	1.3	29	SNP	Novel	3998	---
CDK4	chr12	58144581	C	T	Heterozygous	1.2	76	SNP	Novel	3306	---
CDK4	chr12	58144622	G	A	Heterozygous	1.1	13	SNP	Novel	3420	---
CDK4	chr12	58144665	C	T	Homozygous	99.8	70790	SNP	Novel	3406	---
CDK4	chr12	58144929	C	T	Heterozygous	0.8	22	SNP	Novel	3941	---
CDK4	chr12	58145370	C	T	Heterozygous	1.1	32	SNP	Novel	2088	---
CDK4	chr12	58145413	G	A	Heterozygous	1.2	19	SNP	Novel	2408	---
CDK4	chr12	58145461	C	T	Heterozygous	1.6	44	SNP	Novel	2301	---
CDK4	chr12	58145463	C	T	Heterozygous	1.6	41	SNP	Novel	2297	---
CDK4	chr12	58145470	C	T	Heterozygous	1.1	13	SNP	Novel	2294	---
CDK4	chr12	58145480	C	T	Heterozygous	2.2	99	SNP	Novel	2286	---
CDK4	chr12	58145710	G	A	Heterozygous	1.3	22	SNP	Novel	1971	---
CDK4	chr12	58145730	G	A	Heterozygous	1.4	26	SNP	Novel	2018	---
CDK4	chr12	58145770	C	T	Heterozygous	1.1	15	SNP	Novel	2188	---
AKT1	chr14	105246458	G	A	Heterozygous	1.8	24	SNP	Novel	669	---
AKT1	chr14	105246476	G	A	Heterozygous	1.4	15	SNP	Novel	697	---
AKT1	chr14	105246499	G	A	Heterozygous	1.5	17	SNP	Novel	826	---
AKT1	chr14	105246554	C	T	Heterozygous	1.2	37	SNP	Novel	1139	---
AKT1	chr14	105246573	G	A	Heterozygous	1.3	16	SNP	Novel	1146	---
MAP2K1	chr15	66727464	G	A	Heterozygous	0.9	37	SNP	Novel	3134	---
MAP2K1	chr15	66727491	G	A	Heterozygous	1.2	19	SNP	Novel	3201	---
MAP2K1	chr15	66727519	G	A	Heterozygous	1.2	20	SNP	Novel	3145	---
MAP2K1	chr15	66729108	G	A	Heterozygous	1.1	10	SNP	Novel	1999	---
MAP2K1	chr15	66729187	C	T	Heterozygous	1.5	43	SNP	Novel	2920	---
MAP2K1	chr15	66774100	G	A	Heterozygous	1.1	52	SNP	Novel	3497	---
MAP2K1	chr15	66774130	G	A	Heterozygous	1.2	22	SNP	Novel	3551	---
MAP2K1	chr15	66774161	G	A	Heterozygous	1	59	SNP	Novel	3546	---
IDH2	chr15	90631846	G	A	Heterozygous	1.3	20	SNP	Novel	2070	---
IDH2	chr15	90631864	G	A	Heterozygous	1.1	11	SNP	Novel	2078	---
IDH2	chr15	90631902	G	A	Heterozygous	1.1	39	SNP	Novel	2074	---
IDH2	chr15	90631907	C	T	Heterozygous	1	49	SNP	Novel	2075	---
IDH2	chr15	90631920	C	T	Heterozygous	0.8	36	SNP	Novel	2010	---
ERBB2	chr17	37868196	C	T	Heterozygous	1.4	25	SNP	Novel	1869	---
ERBB2	chr17	37872395	C	T	Heterozygous	1.1	71	SNP	Novel	2080	---
ERBB2	chr17	37872430	C	T	Heterozygous	1.1	12	SNP	Novel	1877	---
ERBB2	chr17	37872450	C	T	Heterozygous	1.3	17	SNP	Novel	1473	---
ERBB2	chr17	37872477	C	T	Heterozygous	1.1	33	SNP	Novel	1445	---
ERBB2	chr17	37879835	G	A	Heterozygous	1	12	SNP	Novel	3995	---

ERBB2	chr17	37880230	C	T	Heterozygous	0.9	36	SNP	Novel	1939	---
ERBB2	chr17	37880239	C	T	Heterozygous	1.1	13	SNP	Novel	1948	---
ERBB2	chr17	37880279	C	T	Heterozygous	1.6	36	SNP	Novel	1996	---
ERBB2	chr17	37880324	G	A	Heterozygous	1	23	SNP	Novel	1968	---
ERBB2	chr17	37880328	C	T	Heterozygous	1.7	43	SNP	Novel	1984	---
ERBB2	chr17	37880983	C	T	Heterozygous	1	12	SNP	Novel	4000	---
ERBB2	chr17	37881008	C	T	Heterozygous	1.2	28	SNP	Novel	3944	---
ERBB2	chr17	37881340	G	A	Heterozygous	1.2	74	SNP	Novel	2908	---
ERBB2	chr17	37881351	C	T	Heterozygous	1.2	24	SNP	Novel	2963	---
ERBB2	chr17	37881353	C	T	Heterozygous	1.1	16	SNP	Novel	2962	---
ERBB2	chr17	37881395	G	A	Heterozygous	1	10	SNP	Novel	3115	---
ERBB2	chr17	37881408	C	T	Heterozygous	1.3	26	SNP	Novel	3159	---
ERBB2	chr17	37881453	G	A	Heterozygous	1.1	13	SNP	Novel	2922	---
ERBB2	chr17	37881537	C	T	Heterozygous	1.1	17	SNP	Novel	3531	---
ERBB2	chr17	37881541	C	T	Heterozygous	1	11	SNP	Novel	3636	---
ERBB2	chr17	37881554	G	A	Heterozygous	1.2	26	SNP	Novel	3656	---
ERBB2	chr17	37881559	C	T	Heterozygous	2	118	SNP	Novel	3632	---
ERBB2	chr17	37881588	C	T	Heterozygous	1.5	52	SNP	Novel	3320	---
ERBB2	chr17	37881619	C	T	Heterozygous	1	12	SNP	Novel	2985	---
ERBB2	chr17	37882888	C	T	Heterozygous	1.1	75	SNP	Novel	3919	---
ERBB2	chr17	37883124	G	A	Heterozygous	1.4	25	SNP	Novel	1688	---
ERBB2	chr17	37883130	C	T	Heterozygous	1.4	23	SNP	Novel	1681	---
ERBB2	chr17	37883200	C	T	Heterozygous	1.1	11	SNP	Novel	1777	---
ERBB2	chr17	37883223	G	A	Heterozygous	1	10	SNP	Novel	1817	---
ERBB2	chr17	37883226	C	T	Heterozygous	1.4	28	SNP	Novel	2041	---
GNA11	chr19	3115017	G	A	Heterozygous	0.8	54	SNP	Novel	1921	---
GNA11	chr19	3115042	C	T	Heterozygous	1.2	15	SNP	Novel	1968	---
GNA11	chr19	3115056	G	A	Heterozygous	1.1	11	SNP	Novel	1972	---
GNA11	chr19	3115084	C	T	Heterozygous	1.6	111	SNP	Novel	1743	---
GNA11	chr19	3115089	C	T	Heterozygous	1.2	17	SNP	Novel	1770	---
GNA11	chr19	3115101	G	A	Heterozygous	1.4	74	SNP	Novel	1720	---
MAP2K2	chr19	4117528	G	A	Heterozygous	1.1	12	SNP	Novel	1802	---
MAP2K2	chr19	4117593	C	T	Heterozygous	1	10	SNP	Novel	1810	---
MAP2K2	chr19	4117626	C	T	Heterozygous	1.1	10	SNP	Novel	1801	---
MAP2K2	chr19	4117638	C	T	Heterozygous	1.1	87	SNP	Novel	1759	---
MAP2K2	chr19	4117645	G	A	Heterozygous	1.2	17	SNP	Novel	1773	---
JAK3	chr19	17945910	C	T	Heterozygous	0.9	109	SNP	Novel	2557	---
JAK3	chr19	17945986	C	T	Heterozygous	1.6	45	SNP	Novel	2607	---

JAK3	chr19	17945987	C	T	Heterozygous	0.8	68	SNP	Novel	2584	---
JAK3	chr19	17948753	C	T	Heterozygous	1.3	22	SNP	Novel	2365	---
JAK3	chr19	17948768	C	T	Heterozygous	1.2	17	SNP	Novel	2388	---
JAK3	chr19	17948771	G	A	Heterozygous	1.5	41	SNP	Novel	2391	---
JAK3	chr19	17948786	C	T	Heterozygous	1.5	38	SNP	Novel	2379	---
JAK3	chr19	17948796	C	T	Heterozygous	1.2	104	SNP	Novel	2312	---
JAK3	chr19	17948804	C	T	Heterozygous	0.9	46	SNP	Novel	2337	---
JAK3	chr19	17948813	C	T	Heterozygous	2.1	87	SNP	Novel	2360	---
JAK3	chr19	17948824	G	A	Heterozygous	1.2	20	SNP	Novel	2358	---
JAK3	chr19	17948828	G	A	Heterozygous	1.1	87	SNP	Novel	2329	---
JAK3	chr19	17948861	C	T	Heterozygous	1.3	26	SNP	Novel	2316	---
AR	chrX	66799243	C	T	Heterozygous	0.9	28	SNP	Novel	3978	---
AR	chrX	66799287	C	T	Heterozygous	1	12	SNP	Novel	4000	---
AR	chrX	66866154	G	A	Heterozygous	1.4	40	SNP	Novel	3680	---
AR	chrX	66866189	G	A	Heterozygous	1	11	SNP	Novel	3699	---
AR	chrX	66866192	G	A	Heterozygous	1.1	19	SNP	Novel	3697	---
AR	chrX	66874572	C	T	Heterozygous	1.2	18	SNP	Novel	3039	---
AR	chrX	66915197	C	T	Heterozygous	1.3	26	SNP	Novel	3084	---
AR	chrX	66915214	G	A	Heterozygous	1	11	SNP	Novel	3145	---
AR	chrX	66917768	G	A	Heterozygous	1.3	15	SNP	Novel	1277	---
AR	chrX	66939005	G	A	Heterozygous	1.1	14	SNP	Novel	3689	---
AR	chrX	66941759	C	T	Heterozygous	1.4	30	SNP	Novel	2295	---
AR	chrX	66941784	G	A	Heterozygous	1.3	26	SNP	Novel	2809	---
AR	chrX	66941813	C	T	Heterozygous	1.3	27	SNP	Novel	3123	---
AR	chrX	66941825	G	A	Heterozygous	1.4	37	SNP	Novel	3143	---
AR	chrX	66941833	C	T	Heterozygous	0.9	55	SNP	Novel	3087	---
AR	chrX	66941843	C	T	Heterozygous	1.2	19	SNP	Novel	3085	---
AR	chrX	66945139	C	T	Heterozygous	0.9	31	SNP	Novel	2171	---
AR	chrX	66945158	G	A	Heterozygous	1.2	20	SNP	Novel	2171	---
AR	chrX	66945213	G	A	Heterozygous	1.3	21	SNP	Novel	2284	---