

Data Sheet

Product Name: CancerSeq AMS Paraffin Tissue Curl

Catalog No.: T2235152-AC

Lot No.: C201100

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: 52 year(s) old
Female: _____ year(s) old

Pathological Diagnosis: Adenocarcinoma, peripheral type, partially broncho-alveolar carcinoma

Tumor Size: 5 x 4 x 3 cm

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)

C201100

Gene ID	Chrom	Position	Ref	Variant	Allele Call	Frequency	Quality	Type	Allele Source	Coverage	Allele Name
MTOR	chr1	11174450	C	T	Heterozygous	3	11	SNP	Novel	1455	---
MTOR	chr1	11174487	G	A	Heterozygous	3.4	20	SNP	Novel	1429	---
MTOR	chr1	11184560	G	A	Heterozygous	3.5	22	SNP	Novel	1253	---
MTOR	chr1	11188009	C	T	Heterozygous	3	13	SNP	Novel	2763	---
MTOR	chr1	11188189	G	A	Heterozygous	3.1	10	SNP	Novel	930	---
MTOR	chr1	11188236	G	A	Heterozygous	3.3	14	SNP	Novel	930	---
MTOR	chr1	11188240	G	A	Heterozygous	4.3	33	SNP	Novel	938	---
MTOR	chr1	11188256	G	A	Heterozygous	5.7	77	SNP	Novel	932	---
MTOR	chr1	11188270	G	A	Heterozygous	3.4	15	SNP	Novel	886	---
MTOR	chr1	11190767	C	T	Heterozygous	4.3	30	SNP	Novel	787	---
JAK1	chr1	65310489	T	C	Heterozygous	39.4	5047	SNP	Novel	1443	---
JAK1	chr1	65310530	G	A	Heterozygous	6.4	156	SNP	Novel	1452	---
JAK1	chr1	65310572	C	T	Heterozygous	3.1	12	SNP	Novel	1447	---
JAK1	chr1	65312283	C	T	Heterozygous	5	48	SNP	Novel	797	---
JAK1	chr1	65312286	G	A	Heterozygous	3.8	20	SNP	Novel	798	---
JAK1	chr1	65312296	C	T	Heterozygous	3.4	13	SNP	Novel	797	---
JAK1	chr1	65312355	C	T	Heterozygous	3.2	11	SNP	Novel	810	---
JAK1	chr1	65312393	C	T	Heterozygous	4.9	45	SNP	Novel	794	---
NRAS	chr1	115252252	C	T	Heterozygous	3.6	23	SNP	Novel	1462	---
NRAS	chr1	115252267	C	T	Heterozygous	3.7	29	SNP	Novel	1467	---
NRAS	chr1	115252298	C	T	Heterozygous	3.5	23	SNP	Novel	1467	---
NRAS	chr1	115252304	C	T	Heterozygous	5.1	85	SNP	Novel	1461	---
DDR2	chr1	162724523	C	T	Heterozygous	3.3	13	SNP	Novel	844	---
DDR2	chr1	162724556	C	T	Heterozygous	3.5	15	SNP	Novel	840	---
DDR2	chr1	162724561	C	T	Heterozygous	3.8	21	SNP	Novel	839	---
DDR2	chr1	162724611	G	A	Heterozygous	3.6	17	SNP	Novel	831	---
DDR2	chr1	162724623	GG	AA	Heterozygous	2.7	30	MNP	Novel	822	---
ALK	chr2	29416091	C	T	Heterozygous	4	14	SNP	Novel	299	---
ALK	chr2	29416112	C	T	Heterozygous	7	49	SNP	Novel	301	---
ALK	chr2	29416128	G	A	Heterozygous	6	38	SNP	Novel	300	---
ALK	chr2	29416148	C	T	Heterozygous	5.9	35	SNP	Novel	305	---
ALK	chr2	29416158	G	A	Heterozygous	3.6	11	SNP	Novel	304	---
ALK	chr2	29416200	C	T	Heterozygous	6	35	SNP	Novel	302	---
ALK	chr2	29416353	C	T	Heterozygous	3.2	12	SNP	Novel	1097	---
ALK	chr2	29416366	G	C	Homozygous	100	17572	SNP	Novel	1103	---

ALK	chr2	29416375	C	T	Heterozygous	3.5	18	SNP	Novel	1124	---
ALK	chr2	29416378	C	T	Heterozygous	6.5	127	SNP	Novel	1126	---
ALK	chr2	29416436	G	A	Heterozygous	4.2	36	SNP	Novel	1146	---
ALK	chr2	29416445	C	T	Heterozygous	4	31	SNP	Novel	1143	---
ALK	chr2	29416547	G	A	Heterozygous	4.4	30	SNP	Novel	734	---
ALK	chr2	29416556	G	A	Heterozygous	4.6	35	SNP	Novel	738	---
ALK	chr2	29416563	G	A	Heterozygous	3.5	14	SNP	Novel	746	---
ALK	chr2	29416572	T	C	Heterozygous	92.7	11517	SNP	Novel	749	---
ALK	chr2	29416572	TC	CT	Heterozygous	7.3	11517	MNP	Novel	749	---
ALK	chr2	29416577	G	A	Heterozygous	3.7	18	SNP	Novel	755	---
ALK	chr2	29416615	G	A	Heterozygous	4.7	39	SNP	Novel	760	---
ALK	chr2	29416665	C	T	Heterozygous	3.4	14	SNP	Novel	755	---
ALK	chr2	29416668	G	A	Heterozygous	3.3	12	SNP	Novel	751	---
ALK	chr2	29436850	C	T	Heterozygous	5.7	50	SNP	Novel	542	---
ALK	chr2	29436897	G	A	Heterozygous	5.3	42	SNP	Novel	543	---
ALK	chr2	29436936	G	A	Heterozygous	4.8	32	SNP	Novel	543	---
ALK	chr2	29436942	C	T	Heterozygous	4.4	25	SNP	Novel	543	---
ALK	chr2	29436972	C	T	Heterozygous	3.5	13	SNP	Novel	537	---
ALK	chr2	29443623	G	A	Heterozygous	3.3	13	SNP	Novel	936	---
ALK	chr2	29445212	G	A	Heterozygous	4.1	10	SNP	Novel	1451	---
ALK	chr2	29445287	G	A	Heterozygous	3.1	12	SNP	Novel	1445	---
ALK	chr2	29445298	G	A	Heterozygous	3.3	16	SNP	Novel	1431	---
ALK	chr2	29445458	G	T	Homozygous	97.9	30078	SNP	Novel	1908	---
RAF1	chr3	12632384	C	T	Heterozygous	3.3	22	SNP	Novel	2503	---
PIK3CA	chr3	178916698	G	A	Heterozygous	6.3	84	SNP	Novel	796	---
PIK3CA	chr3	178916703	G	A	Heterozygous	3.6	17	SNP	Novel	798	---
PIK3CA	chr3	178916787	C	T	Heterozygous	3.4	13	SNP	Novel	707	---
PIK3CA	chr3	178916914	G	A	Heterozygous	4	19	SNP	Novel	679	---
PIK3CA	chr3	178921502	G	A	Heterozygous	2.9	11	SNP	Novel	2219	---
PIK3CA	chr3	178922338	C	T	Heterozygous	3.5	17	SNP	Novel	994	---
PIK3CA	chr3	178927943	G	A	Heterozygous	3	10	SNP	Novel	1156	---
PIK3CA	chr3	178936096	G	A	Heterozygous	4.8	17	SNP	Novel	788	---
PIK3CA	chr3	178936138	G	A	Heterozygous	4.1	26	SNP	Novel	780	---
PIK3CA	chr3	178938842	G	A	Heterozygous	3.9	20	SNP	Novel	698	---
PIK3CA	chr3	178938849	G	A	Heterozygous	7.3	110	SNP	Novel	700	---
PIK3CA	chr3	178938855	G	A	Heterozygous	4.9	40	SNP	Novel	700	---
PIK3CA	chr3	178938924	G	A	Heterozygous	4.3	28	SNP	Novel	720	---
PIK3CA	chr3	178938959	G	A	Heterozygous	4.8	38	SNP	Novel	686	---

FGFR3	chr4	1797234	G	A	Heterozygous	3.4	12	SNP	Novel	712	---
FGFR3	chr4	1797255	G	A	Heterozygous	3.4	12	SNP	Novel	714	---
FGFR3	chr4	1797304	G	A	Heterozygous	4.4	29	SNP	Novel	709	---
FGFR3	chr4	1801111	G	A	Heterozygous	5.2	49	SNP	Novel	757	---
FGFR3	chr4	1801128	G	A	Heterozygous	4.9	45	SNP	Novel	820	---
FGFR3	chr4	1801168	C	T	Heterozygous	3.9	23	SNP	Novel	871	---
FGFR3	chr4	1801205	C	T	Heterozygous	3.2	11	SNP	Novel	873	---
FGFR3	chr4	1801217	C	T	Heterozygous	4	26	SNP	Novel	867	---
FGFR3	chr4	1803588	C	T	Heterozygous	3.1	18	SNP	Novel	2925	---
FGFR3	chr4	1805846	C	T	Heterozygous	3.6	40	SNP	Novel	2753	---
FGFR3	chr4	1806143	C	T	Heterozygous	2.9	10	SNP	Novel	2320	---
FGFR3	chr4	1806185	C	T	Heterozygous	5	80	SNP	Novel	1551	---
FGFR3	chr4	1807894	G	A	Homozygous	100	60461	SNP	Novel	3786	---
FGFR3	chr4	1809227	G	A	Heterozygous	3.3	12	SNP	Novel	726	---
FGFR3	chr4	1809272	G	A	Heterozygous	4.5	33	SNP	Novel	740	---
FGFR3	chr4	1809317	G	A	Heterozygous	6.8	99	SNP	Novel	731	---
FGFR3	chr4	1809327	G	A	Heterozygous	3.2	11	SNP	Novel	836	---
FGFR3	chr4	1809472	C	T	Heterozygous	3.8	19	SNP	Novel	771	---
FGFR3	chr4	1809503	C	T	Heterozygous	5.3	54	SNP	Novel	777	---
PDGFRA	chr4	55097718	C	T	Heterozygous	4.3	29	SNP	Novel	739	---
PDGFRA	chr4	55097744	C	T	Heterozygous	3.4	13	SNP	Novel	744	---
PDGFRA	chr4	55097757	C	T	Heterozygous	3.7	12	SNP	Novel	756	---
PDGFRA	chr4	55097822	C	T	Heterozygous	4.3	29	SNP	Novel	769	---
PDGFRA	chr4	55097835	G	C	Heterozygous	3.3	12	SNP	Novel	761	---
PDGFRA	chr4	55097836	C	T	Heterozygous	4.2	27	SNP	Novel	766	---
PDGFRA	chr4	55104306	C	T	Heterozygous	4.1	48	SNP	Novel	1797	---
PDGFRA	chr4	55121597	G	A	Heterozygous	3.6	25	SNP	Novel	1458	---
PDGFRA	chr4	55123764	C	T	Heterozygous	5	61	SNP	Novel	1051	---
PDGFRA	chr4	55141051	G	A	Heterozygous	3.6	23	SNP	Novel	1265	---
PDGFRA	chr4	55141055	A	G	Homozygous	100	20087	SNP	Novel	1262	---
PDGFRA	chr4	55152034	C	T	Heterozygous	3.8	31	SNP	Novel	1307	---
PDGFRA	chr4	55152116	G	A	Heterozygous	3.6	24	SNP	Novel	1351	---
PDGFRA	chr4	55152149	C	T	Heterozygous	5.8	111	SNP	Novel	1348	---
KIT	chr4	55529134	C	T	Heterozygous	3.5	15	SNP	Novel	655	---
KIT	chr4	55529160	GAAA	-	Heterozygous	23.9	4867	DEL	Novel	506	---
KIT	chr4	55529161	AA	-	Heterozygous	76.1	4867	DEL	Novel	506	---
KIT	chr4	55566266	G	A	Homozygous	100	7303	SNP	Novel	464	---
KIT	chr4	55598903	A	T	Heterozygous	51.4	7717	SNP	Novel	1452	---

ROS1	chr6	117638379	G	A	Heterozygous	3.4	22	SNP	Novel	1954	---
ROS1	chr6	117641099	C	T	Heterozygous	3.4	16	SNP	Novel	1154	---
ESR1	chr6	152419913	G	A	Heterozygous	3.5	16	SNP	Novel	858	---
EGFR	chr7	55221856	C	T	Heterozygous	4.6	69	SNP	Novel	1774	---
EGFR	chr7	55221866	C	T	Heterozygous	4	45	SNP	Novel	1781	---
EGFR	chr7	55221878	C	T	Heterozygous	5.3	110	SNP	Novel	1775	---
EGFR	chr7	55221893	C	T	Heterozygous	3.6	27	SNP	Novel	1766	---
EGFR	chr7	55221897	C	T	Heterozygous	3	12	SNP	Novel	1765	---
EGFR	chr7	55221903	C	T	Heterozygous	3.8	34	SNP	Novel	1767	---
EGFR	chr7	55249011	A	C	Heterozygous	16.1	488	SNP	Novel	853	---
EGFR	chr7	55249014	-	ACCCCAAC	Heterozygous	12.9	450	INS	Novel	858	---
EGFR	chr7	55249045	C	T	Heterozygous	3.4	14	SNP	Novel	955	---
EGFR	chr7	55249063	G	A	Heterozygous	44.4	4011	SNP	Novel	960	---
EGFR	chr7	55249087	C	T	Heterozygous	5.8	86	SNP	Novel	959	---
EGFR	chr7	55259429	G	A	Heterozygous	3	13	SNP	Novel	2454	---
EGFR	chr7	55259451	G	A	Heterozygous	6.7	283	SNP	Novel	2461	---
EGFR	chr7	55259474	G	A	Heterozygous	3.5	31	SNP	Novel	2457	---
MET	chr7	116313515	C	T	Heterozygous	3.3	14	SNP	Novel	1155	---
MET	chr7	116313568	G	A	Heterozygous	3.1	11	SNP	Novel	1154	---
MET	chr7	116403181	C	T	Heterozygous	3.5	18	SNP	Novel	989	---
MET	chr7	116415096	C	T	Heterozygous	3.7	27	SNP	Novel	1390	---
MET	chr7	116434542	G	A	Heterozygous	3.3	16	SNP	Novel	1370	---
SMO	chr7	128845518	C	T	Heterozygous	4	33	SNP	Novel	1186	---
SMO	chr7	128845553	C	T	Heterozygous	3.2	13	SNP	Novel	1192	---
SMO	chr7	128845588	C	T	Heterozygous	3.8	26	SNP	Novel	1226	---
SMO	chr7	128845606	G	A	Heterozygous	4.4	43	SNP	Novel	1218	---
SMO	chr7	128849169	C	T	Heterozygous	3.4	18	SNP	Novel	1251	---
SMO	chr7	128849201	C	T	Heterozygous	3.4	18	SNP	Novel	1250	---
BRAF	chr7	140453113	G	A	Heterozygous	4.1	26	SNP	Novel	802	---
BRAF	chr7	140453139	G	A	Heterozygous	4.9	46	SNP	Novel	810	---
BRAF	chr7	140453198	G	A	Heterozygous	4	24	SNP	Novel	800	---
BRAF	chr7	140482791	C	T	Heterozygous	3	12	SNP	Novel	2172	---
JAK2	chr9	5073762	G	A	Heterozygous	3.4	13	SNP	Novel	674	---
JAK2	chr9	5073768	G	A	Heterozygous	4.3	27	SNP	Novel	676	---
GNAQ	chr9	80409378	C	T	Heterozygous	3.2	14	SNP	Novel	1303	---
GNAQ	chr9	80409422	G	A	Heterozygous	3.2	14	SNP	Novel	1306	---
GNAQ	chr9	80409458	C	T	Heterozygous	3.8	29	SNP	Novel	1301	---
GNAQ	chr9	80409491	C	T	Heterozygous	4.3	42	SNP	Novel	1269	---

GNAQ	chr9	80412464	G	A	Heterozygous	3.9	73	SNP	Novel	3712	---
RET	chr10	43609104	C	T	Heterozygous	4.3	50	SNP	Novel	1564	---
RET	chr10	43609151	C	T	Heterozygous	3.9	36	SNP	Novel	1588	---
RET	chr10	43609169	G	A	Heterozygous	3.2	15	SNP	Novel	1592	---
RET	chr10	43609894	G	A	Heterozygous	3.2	11	SNP	Novel	887	---
RET	chr10	43609897	G	A	Heterozygous	3.8	22	SNP	Novel	887	---
RET	chr10	43609912	C	T	Heterozygous	3.8	22	SNP	Novel	886	---
RET	chr10	43609918	C	T	Heterozygous	3.8	21	SNP	Novel	846	---
RET	chr10	43609930	C	T	Heterozygous	8.1	177	SNP	Novel	903	---
RET	chr10	43609951	C	T	Heterozygous	6.3	100	SNP	Novel	916	---
RET	chr10	43609963	G	A	Heterozygous	3.1	11	SNP	Novel	922	---
RET	chr10	43609974	C	T	Heterozygous	5.4	66	SNP	Novel	925	---
RET	chr10	43610009	C	T	Heterozygous	5.9	84	SNP	Novel	911	---
RET	chr10	43613843	G	T	Homozygous	100	43550	SNP	Novel	2722	---
RET	chr10	43615547	G	A	Heterozygous	5.7	50	SNP	Novel	557	---
RET	chr10	43615602	G	A	Heterozygous	4.8	32	SNP	Novel	564	---
RET	chr10	43615622	G	A	Heterozygous	4.4	10	SNP	Novel	519	---
RET	chr10	43615633	C	T	Heterozygous	5.6	48	SNP	Novel	558	---
RET	chr10	43615647	G	A	Heterozygous	4.5	27	SNP	Novel	556	---
RET	chr10	43615679	C	T	Heterozygous	4	19	SNP	Novel	523	---
RET	chr10	43617339	C	T	Heterozygous	3.5	16	SNP	Novel	944	---
RET	chr10	43617346	C	T	Heterozygous	6	91	SNP	Novel	945	---
FGFR2	chr10	123257959	C	T	Heterozygous	3.8	58	SNP	Novel	3178	---
FGFR2	chr10	123276895	G	A	Heterozygous	3	13	SNP	Novel	2334	---
FGFR2	chr10	123284147	C	T	Heterozygous	4.1	29	SNP	Novel	983	---
FGFR2	chr10	123284160	G	A	Heterozygous	3.6	19	SNP	Novel	980	---
FGFR2	chr10	123312184	A	G	Heterozygous	3.6	15	SNP	Novel	606	---
FGFR2	chr10	123312216	C	T	Heterozygous	5.6	47	SNP	Novel	604	---
FGFR2	chr10	123312222	C	T	Heterozygous	3.9	20	SNP	Novel	638	---
FGFR2	chr10	123312230	C	T	Heterozygous	3.5	13	SNP	Novel	636	---
HRAS	chr11	533817	C	T	Heterozygous	5.4	79	SNP	Novel	1123	---
HRAS	chr11	533838	C	T	Heterozygous	3.1	11	SNP	Novel	1140	---
HRAS	chr11	533846	C	T	Heterozygous	4.2	35	SNP	Novel	1142	---
HRAS	chr11	533872	C	T	Heterozygous	4.7	52	SNP	Novel	1129	---
HRAS	chr11	533904	C	T	Heterozygous	3.2	13	SNP	Novel	1126	---
HRAS	chr11	534317	C	T	Heterozygous	5.2	114	SNP	Novel	2038	---
KRAS	chr12	25378630	C	T	Heterozygous	3.5	21	SNP	Novel	1448	---
KRAS	chr12	25386037	C	T	Heterozygous	3.4	11	SNP	Novel	532	---

KRAS	chr12	25386061	C	T	Heterozygous	7.4	89	SNP	Novel	528	---
KRAS	chr12	25386063	C	A	Heterozygous	96.4	8156	SNP	Novel	526	---
KRAS	chr12	25386063	CC	AT	Heterozygous	3.6	8156	MNP	Novel	526	---
KRAS	chr12	25386099	C	T	Heterozygous	7.4	91	SNP	Novel	539	---
KRAS	chr12	25386986	G	A	Heterozygous	4.3	30	SNP	Novel	799	---
KRAS	chr12	25391146	G	A	Heterozygous	3.1	11	SNP	Novel	1154	---
KRAS	chr12	25398275	C	T	Heterozygous	4.4	51	SNP	Novel	1400	---
KRAS	chr12	25400213	G	A	Heterozygous	4.8	51	SNP	Novel	1001	---
ERBB3	chr12	56477653	C	T	Heterozygous	4.6	50	SNP	Novel	1150	---
ERBB3	chr12	56477694	A	T	Heterozygous	57.8	7025	SNP	Novel	1109	---
ERBB3	chr12	56481570	C	T	Heterozygous	3.6	18	SNP	Novel	860	---
ERBB3	chr12	56481574	C	T	Heterozygous	3.5	16	SNP	Novel	861	---
ERBB3	chr12	56481597	C	T	Heterozygous	5.3	60	SNP	Novel	867	---
ERBB3	chr12	56481627	C	T	Heterozygous	5.2	56	SNP	Novel	868	---
ERBB3	chr12	56481637	C	T	Heterozygous	3.2	11	SNP	Novel	870	---
ERBB3	chr12	56481691	C	T	Heterozygous	3.4	14	SNP	Novel	882	---
ERBB3	chr12	56482548	C	T	Heterozygous	3.5	17	SNP	Novel	1008	---
ERBB3	chr12	56482602	C	T	Heterozygous	3.9	25	SNP	Novel	1012	---
ERBB3	chr12	56482604	G	A	Heterozygous	5.3	69	SNP	Novel	1012	---
ERBB3	chr12	56482641	C	T	Heterozygous	4.4	37	SNP	Novel	1011	---
CDK4	chr12	58142085	G	A	Heterozygous	4.2	24	SNP	Novel	641	---
CDK4	chr12	58142153	G	A	Heterozygous	3.3	11	SNP	Novel	628	---
CDK4	chr12	58142155	G	A	Heterozygous	4	21	SNP	Novel	625	---
CDK4	chr12	58142283	C	T	Heterozygous	3.1	10	SNP	Novel	895	---
CDK4	chr12	58142288	C	T	Heterozygous	3.1	10	SNP	Novel	897	---
CDK4	chr12	58142292	G	A	Heterozygous	4	26	SNP	Novel	899	---
CDK4	chr12	58142302	C	T	Heterozygous	3.2	12	SNP	Novel	901	---
CDK4	chr12	58142983	C	T	Heterozygous	3.2	26	SNP	Novel	3999	---
CDK4	chr12	58144421	G	A	Heterozygous	3.1	11	SNP	Novel	1231	---
CDK4	chr12	58144502	G	A	Heterozygous	3.5	20	SNP	Novel	1222	---
CDK4	chr12	58144614	G	A	Heterozygous	4	29	SNP	Novel	1138	---
CDK4	chr12	58144622	G	A	Heterozygous	3.4	17	SNP	Novel	1137	---
CDK4	chr12	58144665	C	T	Homozygous	100	17595	SNP	Novel	1113	---
CDK4	chr12	58145365	C	T	Heterozygous	3.6	18	SNP	Novel	982	---
CDK4	chr12	58145370	C	T	Heterozygous	3.3	14	SNP	Novel	997	---
CDK4	chr12	58145405	C	T	Heterozygous	3.9	25	SNP	Novel	1035	---
CDK4	chr12	58145428	C	T	Heterozygous	4.6	45	SNP	Novel	1020	---
CDK4	chr12	58145434	C	T	Heterozygous	3.3	13	SNP	Novel	1015	---

CDK4	chr12	58145470	C	T	Heterozygous	4.3	35	SNP	Novel	1007	---
CDK4	chr12	58145476	C	T	Heterozygous	3.2	12	SNP	Novel	1007	---
CDK4	chr12	58145480	C	T	Heterozygous	3.1	10	SNP	Novel	1002	---
CDK4	chr12	58145742	G	A	Heterozygous	4.6	45	SNP	Novel	1071	---
CDK4	chr12	58145743	G	A	Heterozygous	4	30	SNP	Novel	1072	---
CDK4	chr12	58145811	C	T	Heterozygous	3.9	27	SNP	Novel	1113	---
AKT1	chr14	105246447	G	A	Heterozygous	7	49	SNP	Novel	300	---
AKT1	chr14	105246465	C	T	Heterozygous	4.5	19	SNP	Novel	311	---
AKT1	chr14	105246477	C	T	Heterozygous	6.5	45	SNP	Novel	321	---
AKT1	chr14	105246503	C	T	Heterozygous	5.6	35	SNP	Novel	378	---
AKT1	chr14	105246510	C	T	Heterozygous	5	29	SNP	Novel	397	---
AKT1	chr14	105246527	G	A	Heterozygous	6.7	61	SNP	Novel	431	---
AKT1	chr14	105246546	G	A	Heterozygous	3.5	11	SNP	Novel	433	---
MAP2K1	chr15	66727439	C	T	Heterozygous	3.9	34	SNP	Novel	1426	---
MAP2K1	chr15	66729132	G	A	Heterozygous	3.8	21	SNP	Novel	902	---
MAP2K1	chr15	66774085	C	T	Heterozygous	5.2	77	SNP	Novel	1393	---
MAP2K1	chr15	66774126	G	A	Heterozygous	3.8	30	SNP	Novel	1454	---
MAP2K1	chr15	66774136	C	T	Heterozygous	6.7	173	SNP	Novel	1455	---
MAP2K1	chr15	66774182	G	A	Heterozygous	4.9	73	SNP	Novel	1449	---
IDH2	chr15	90631861	C	T	Heterozygous	4.9	34	SNP	Novel	526	---
IDH2	chr15	90631862	C	G	Heterozygous	4.9	134	SNP	Novel	526	---
IDH2	chr15	90631866	C	T	Heterozygous	3.6	14	SNP	Novel	526	---
IDH2	chr15	90631869	G	A	Heterozygous	3.8	16	SNP	Novel	527	---
IDH2	chr15	90631952	C	T	Heterozygous	5.7	44	SNP	Novel	506	---
ERBB2	chr17	37868188	C	T	Heterozygous	4.5	30	SNP	Novel	644	---
ERBB2	chr17	37868201	G	A	Heterozygous	3.7	16	SNP	Novel	648	---
ERBB2	chr17	37868215	C	T	Heterozygous	3.5	14	SNP	Novel	650	---
ERBB2	chr17	37868231	C	G	Heterozygous	3.4	13	SNP	Novel	640	---
ERBB2	chr17	37868236	C	T	Heterozygous	3.9	19	SNP	Novel	641	---
ERBB2	chr17	37872381	C	T	Heterozygous	4.7	44	SNP	Novel	943	---
ERBB2	chr17	37872398	C	T	Heterozygous	5.9	84	SNP	Novel	929	---
ERBB2	chr17	37872439	C	T	Heterozygous	3.1	10	SNP	Novel	768	---
ERBB2	chr17	37872475	C	T	Heterozygous	4.1	26	SNP	Novel	835	---
ERBB2	chr17	37880221	G	A	Heterozygous	3.3	14	SNP	Novel	1032	---
ERBB2	chr17	37880244	C	T	Heterozygous	3.1	10	SNP	Novel	1043	---
ERBB2	chr17	37880277	C	T	Heterozygous	3.3	13	SNP	Novel	1038	---
ERBB2	chr17	37880305	C	T	Heterozygous	4.2	34	SNP	Novel	1047	---
ERBB2	chr17	37880962	C	T	Heterozygous	3.2	23	SNP	Novel	2844	---

ERBB2	chr17	37881355	G	A	Heterozygous	4.4	48	SNP	Novel	1401	---
ERBB2	chr17	37881358	C	T	Heterozygous	4.7	62	SNP	Novel	1403	---
ERBB2	chr17	37881383	G	A	Heterozygous	4.5	53	SNP	Novel	1403	---
ERBB2	chr17	37881393	C	T	Heterozygous	4.2	45	SNP	Novel	1412	---
ERBB2	chr17	37881401	G	A	Heterozygous	4.3	47	SNP	Novel	1409	---
ERBB2	chr17	37881411	G	A	Heterozygous	3.8	28	SNP	Novel	1413	---
ERBB2	chr17	37881418	G	A	Heterozygous	3.4	19	SNP	Novel	1413	---
ERBB2	chr17	37881436	G	A	Heterozygous	3.3	17	SNP	Novel	1416	---
ERBB2	chr17	37881450	G	A	Heterozygous	4.1	38	SNP	Novel	1344	---
ERBB2	chr17	37881530	C	T	Heterozygous	5.3	81	SNP	Novel	1273	---
ERBB2	chr17	37881559	C	T	Heterozygous	3.4	17	SNP	Novel	1282	---
ERBB2	chr17	37881583	C	T	Heterozygous	4.4	45	SNP	Novel	1223	---
ERBB2	chr17	37881588	C	T	Heterozygous	3.3	14	SNP	Novel	1228	---
ERBB2	chr17	37883125	G	A	Heterozygous	5.3	43	SNP	Novel	590	---
GNA11	chr19	3114989	C	T	Heterozygous	5.5	45	SNP	Novel	549	---
GNA11	chr19	3114994	C	T	Heterozygous	6.4	65	SNP	Novel	551	---
GNA11	chr19	3115000	G	A	Heterozygous	4.5	28	SNP	Novel	550	---
GNA11	chr19	3115005	G	A	Heterozygous	4.7	31	SNP	Novel	549	---
GNA11	chr19	3115027	G	A	Heterozygous	5.7	49	SNP	Novel	548	---
GNA11	chr19	3115042	C	T	Heterozygous	5.5	45	SNP	Novel	549	---
GNA11	chr19	3115100	G	A	Heterozygous	5	36	SNP	Novel	535	---
MAP2K2	chr19	4117557	C	T	Heterozygous	5.6	77	SNP	Novel	979	---
MAP2K2	chr19	4117591	C	T	Heterozygous	3.6	19	SNP	Novel	934	---
MAP2K2	chr19	4117600	C	T	Heterozygous	6.5	109	SNP	Novel	932	---
MAP2K2	chr19	4117606	C	T	Heterozygous	3.2	12	SNP	Novel	932	---
MAP2K2	chr19	4117609	C	T	Heterozygous	3.4	15	SNP	Novel	934	---
MAP2K2	chr19	4117615	C	T	Heterozygous	6.5	106	SNP	Novel	929	---
MAP2K2	chr19	4117626	C	T	Heterozygous	4.5	40	SNP	Novel	927	---
MAP2K2	chr19	4117641	C	T	Heterozygous	6.3	98	SNP	Novel	822	---
JAK3	chr19	17945925	G	A	Heterozygous	4.9	45	SNP	Novel	796	---
JAK3	chr19	17945935	C	T	Heterozygous	3.2	11	SNP	Novel	802	---
JAK3	chr19	17945954	C	T	Heterozygous	3.7	19	SNP	Novel	801	---
JAK3	chr19	17945958	C	T	Heterozygous	4.2	29	SNP	Novel	801	---
JAK3	chr19	17945960	G	A	Heterozygous	4.2	30	SNP	Novel	800	---
JAK3	chr19	17945967	C	T	Heterozygous	4.3	29	SNP	Novel	798	---
JAK3	chr19	17945970	G	A	Heterozygous	3.4	13	SNP	Novel	805	---
JAK3	chr19	17945973	C	T	Heterozygous	8.2	164	SNP	Novel	805	---
JAK3	chr19	17945977	G	A	Heterozygous	4.5	34	SNP	Novel	805	---

JAK3	chr19	17945979	G	A	Heterozygous	4.3	32	SNP	Novel	805	---
JAK3	chr19	17945983	C	T	Heterozygous	4.1	26	SNP	Novel	805	---
JAK3	chr19	17945997	C	T	Heterozygous	3.8	21	SNP	Novel	808	---
JAK3	chr19	17946006	G	A	Heterozygous	4.3	31	SNP	Novel	838	---
JAK3	chr19	17948774	C	T	Heterozygous	3.3	12	SNP	Novel	888	---
JAK3	chr19	17948785	C	T	Heterozygous	3.9	24	SNP	Novel	889	---
AR	chrX	66866165	G	A	Heterozygous	3.1	11	SNP	Novel	1166	---
AR	chrX	66866192	G	A	Heterozygous	3.9	30	SNP	Novel	1166	---
AR	chrX	66874600	C	T	Heterozygous	3.9	21	SNP	Novel	745	---
AR	chrX	66915189	C	T	Heterozygous	4.4	46	SNP	Novel	1248	---
AR	chrX	66915289	G	A	Heterozygous	4.1	36	SNP	Novel	1298	---
AR	chrX	66917717	C	T	Heterozygous	4.6	58	SNP	Novel	1388	---
AR	chrX	66917729	C	T	Heterozygous	3.4	17	SNP	Novel	1391	---
AR	chrX	66917765	C	T	Heterozygous	3	11	SNP	Novel	1389	---
AR	chrX	66938992	C	T	Heterozygous	3.1	13	SNP	Novel	1537	---
AR	chrX	66938993	C	T	Heterozygous	4.7	66	SNP	Novel	1537	---
AR	chrX	66939040	G	A	Heterozygous	5.2	89	SNP	Novel	1503	---
AR	chrX	66941727	C	T	Heterozygous	5.8	62	SNP	Novel	694	---
AR	chrX	66941729	C	T	Heterozygous	3.3	11	SNP	Novel	697	---
AR	chrX	66941742	G	A	Heterozygous	3.5	14	SNP	Novel	718	---
AR	chrX	66941777	C	T	Heterozygous	4.5	39	SNP	Novel	960	---
AR	chrX	66941834	C	T	Heterozygous	3.6	20	SNP	Novel	1017	---
AR	chrX	66945189	G	A	Heterozygous	3.7	23	SNP	Novel	1199	---