

Data Sheet

Product Name: CancerSeq AMS Paraffin Tissue Curl

Catalog No.: T2235152-AC

Lot No.: C201037

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

Pathological Diagnosis: Peripheral Squamous Cell Carcinoma, Carcinoma Infiltrating Pleura

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)

C201037

Gene ID	Chrom	Position	Ref	Variant	Allele Call	Frequency	Quality	Type	Allele Source	Coverage	Allele Name
MTOR	chr1	11174485	C	T	Heterozygous	26.6	325	SNP	Novel	177	---
MTOR	chr1	11188041	C	T	Heterozygous	6.5	77	SNP	Novel	635	---
MTOR	chr1	11189887	G	A	Heterozygous	94.7	518	SNP	Novel	38	---
MTOR	chr1	11217209	C	T	Heterozygous	23	285	SNP	Novel	191	---
MTOR	chr1	11217215	C	T	Heterozygous	23.6	292	SNP	Novel	191	---
MTOR	chr1	11217277	C	T	Heterozygous	20.8	243	SNP	Novel	192	---
JAK1	chr1	65310489	T	C	Heterozygous	32.7	778	SNP	Novel	306	---
JAK1	chr1	65310519	G	A	Heterozygous	10.2	107	SNP	Novel	304	---
JAK1	chr1	65310561	G	A	Heterozygous	9.6	95	SNP	Novel	301	---
JAK1	chr1	65311199	G	A	Heterozygous	5.9	92	SNP	Novel	1019	---
JAK1	chr1	65311227	G	A	Heterozygous	6.1	98	SNP	Novel	1024	---
JAK1	chr1	65311231	C	T	Heterozygous	4.8	50	SNP	Novel	1026	---
JAK1	chr1	65311248	G	A	Heterozygous	4.8	52	SNP	Novel	1017	---
JAK1	chr1	65311250	G	A	Heterozygous	3.6	20	SNP	Novel	1017	---
NRAS	chr1	115256536	C	T	Heterozygous	8.6	60	SNP	Hotspot	384	COSM578
NRAS	chr1	115256581	C	T	Heterozygous	10.6	142	SNP	Novel	386	---
NRAS	chr1	115258742	C	T	Heterozygous	5.3	38	SNP	Novel	490	---
NRAS	chr1	115258745	C	T	Heterozygous	8	60	SNP	Hotspot	490	COSM571
NRAS	chr1	115258763	C	T	Heterozygous	7.8	93	SNP	Novel	489	---
ALK	chr2	29416141	G	A	Heterozygous	15.2	62	SNP	Novel	79	---
ALK	chr2	29416168	G	A	Heterozygous	28.9	159	SNP	Novel	76	---
ALK	chr2	29416179	G	A	Heterozygous	28.6	159	SNP	Novel	77	---
ALK	chr2	29416200	C	T	Heterozygous	7.9	23	SNP	Novel	76	---
ALK	chr2	29416366	G	C	Heterozygous	96.2	1450	SNP	Novel	105	---
ALK	chr2	29416572	T	C	Homozygous	100	2276	SNP	Novel	144	---
ALK	chr2	29416578	C	T	Heterozygous	8.3	39	SNP	Novel	144	---
ALK	chr2	29420442	G	A	Heterozygous	6.6	77	SNP	Novel	587	---
ALK	chr2	29420461	C	T	Heterozygous	6	58	SNP	Novel	584	---
ALK	chr2	29432706	C	T	Heterozygous	3.8	23	SNP	Novel	1038	---
ALK	chr2	29436899	C	T	Heterozygous	27.4	265	SNP	Novel	135	---
ALK	chr2	29436904	G	A	Heterozygous	20.7	170	SNP	Novel	135	---
ALK	chr2	29436923	G	A	Heterozygous	20.6	169	SNP	Novel	136	---
ALK	chr2	29436957	G	A	Heterozygous	23.3	201	SNP	Novel	133	---
ALK	chr2	29443577	G	A	Heterozygous	11	48	SNP	Novel	100	---
ALK	chr2	29443617	C	G	Heterozygous	11.2	72	SNP	Novel	98	---

ALK	chr2	29445241	G	A	Heterozygous	29.6	227	SNP	Novel	98	---
ALK	chr2	29445304	G	A	Heterozygous	29.3	225	SNP	Novel	99	---
ALK	chr2	29445394	C	T	Heterozygous	7.9	57	SNP	Novel	267	---
ALK	chr2	29445423	C	T	Heterozygous	13.7	161	SNP	Novel	271	---
ALK	chr2	29445458	G	T	Heterozygous	83.6	3100	SNP	Novel	274	---
ALK	chr2	29445469	G	A	Heterozygous	4.5	17	SNP	Novel	269	---
ALK	chr2	29498004	C	T	Heterozygous	5.9	14	SNP	Novel	68	---
IDH1	chr2	209113186	G	A	Heterozygous	34.8	837	SNP	Novel	290	---
ERBB4	chr2	212488770	C	T	Heterozygous	9.1	175	SNP	Novel	684	---
RAF1	chr3	12632380	G	A	Heterozygous	6.7	83	SNP	Novel	623	---
RAF1	chr3	12645673	C	T	Heterozygous	4.1	15	SNP	Novel	316	---
RAF1	chr3	12645723	C	T	Heterozygous	4.1	15	SNP	Novel	314	---
CTNNB1	chr3	41266099	C	T	Heterozygous	18.5	59	SNP	Novel	65	---
PIK3CA	chr3	178921547	C	T	Heterozygous	4.9	20	SNP	Novel	247	---
PIK3CA	chr3	178927945	C	T	Heterozygous	16.2	108	SNP	Novel	130	---
PIK3CA	chr3	178927977	C	T	Heterozygous	11.3	61	SNP	Novel	133	---
PIK3CA	chr3	178938844	G	A	Heterozygous	7.2	38	SNP	Novel	195	---
PIK3CA	chr3	178938885	G	A	Heterozygous	22.2	274	SNP	Novel	198	---
PIK3CA	chr3	178938899	A	G	Heterozygous	6.8	36	SNP	Novel	205	---
PIK3CA	chr3	178938930	G	A	Heterozygous	7.5	44	SNP	Novel	213	---
PIK3CA	chr3	178938945	G	A	Heterozygous	16.3	165	SNP	Novel	209	---
PIK3CA	chr3	178947866	G	A	Heterozygous	4.2	32	SNP	Novel	922	---
PIK3CA	chr3	178947876	C	T	Heterozygous	3.2	11	SNP	Novel	919	---
PIK3CA	chr3	178947891	G	A	Heterozygous	4.3	33	SNP	Novel	914	---
FGFR3	chr4	1797705	G	A	Heterozygous	3.6	19	SNP	Novel	1030	---
FGFR3	chr4	1797735	G	A	Heterozygous	3.5	17	SNP	Novel	1028	---
FGFR3	chr4	1801194	G	C	Heterozygous	13.2	120	SNP	Novel	204	---
FGFR3	chr4	1801199	C	T	Heterozygous	8.9	58	SNP	Novel	203	---
FGFR3	chr4	1803552	G	A	Heterozygous	3.4	14	SNP	Novel	700	---
FGFR3	chr4	1803578	G	A	Heterozygous	4.7	37	SNP	Novel	751	---
FGFR3	chr4	1803591	G	A	Heterozygous	4.4	31	SNP	Novel	751	---
FGFR3	chr4	1803595	G	A	Heterozygous	4.3	28	SNP	Novel	750	---
FGFR3	chr4	1803599	G	A	Heterozygous	4	23	SNP	Novel	751	---
FGFR3	chr4	1803602	G	A	Heterozygous	4.3	28	SNP	Novel	752	---
FGFR3	chr4	1805820	C	T	Heterozygous	5.7	41	SNP	Novel	421	---
FGFR3	chr4	1805829	C	T	Heterozygous	8.1	88	SNP	Novel	421	---
FGFR3	chr4	1805854	C	T	Heterozygous	9.9	135	SNP	Novel	423	---
FGFR3	chr4	1805866	C	T	Heterozygous	10	136	SNP	Novel	420	---

FGFR3	chr4	1805872	C	T	Heterozygous	7.2	68	SNP	Novel	419	---
FGFR3	chr4	1806102	C	T	Heterozygous	3.5	12	SNP	Novel	515	---
FGFR3	chr4	1806133	C	T	Heterozygous	5.3	39	SNP	Novel	510	---
FGFR3	chr4	1806177	G	A	Heterozygous	7.4	83	SNP	Novel	485	---
FGFR3	chr4	1807867	G	A	Heterozygous	3.2	11	SNP	Novel	879	---
FGFR3	chr4	1807894	G	A	Homozygous	100	13977	SNP	Novel	880	---
FGFR3	chr4	1808320	C	T	Heterozygous	3.2	13	SNP	Novel	1124	---
FGFR3	chr4	1808361	C	T	Heterozygous	5.7	95	SNP	Novel	1173	---
FGFR3	chr4	1808371	G	A	Heterozygous	3.1	11	SNP	Novel	1173	---
FGFR3	chr4	1809314	C	T	Heterozygous	7.5	37	SNP	Novel	173	---
FGFR3	chr4	1809354	C	T	Heterozygous	24.1	266	SNP	Novel	170	---
FGFR3	chr4	1809463	G	A	Heterozygous	20	160	SNP	Novel	135	---
PDGFRA	chr4	55097718	C	T	Heterozygous	5.6	25	SNP	Novel	213	---
PDGFRA	chr4	55097750	C	T	Heterozygous	12.5	112	SNP	Novel	216	---
PDGFRA	chr4	55097792	G	A	Heterozygous	16.4	181	SNP	Novel	219	---
PDGFRA	chr4	55097797	C	T	Heterozygous	12.8	118	SNP	Novel	218	---
PDGFRA	chr4	55097810	C	T	Heterozygous	6.5	31	SNP	Novel	214	---
PDGFRA	chr4	55097823	A	G	Heterozygous	7	38	SNP	Novel	214	---
PDGFRA	chr4	55097825	G	A	Heterozygous	15.9	168	SNP	Novel	214	---
PDGFRA	chr4	55097832	C	T	Heterozygous	6.5	34	SNP	Novel	214	---
PDGFRA	chr4	55097835	G	C	Homozygous	98.1	3157	SNP	Novel	212	---
PDGFRA	chr4	55104299	C	A	Heterozygous	6.2	19	SNP	Novel	96	---
PDGFRA	chr4	55104300	C	T	Heterozygous	7.4	24	SNP	Novel	95	---
PDGFRA	chr4	55104313	G	C	Heterozygous	5.9	18	SNP	Novel	101	---
PDGFRA	chr4	55104352	C	T	Heterozygous	7.8	27	SNP	Novel	103	---
PDGFRA	chr4	55104386	A	G	Heterozygous	5.9	18	SNP	Novel	101	---
PDGFRA	chr4	55121541	G	A	Heterozygous	31.4	335	SNP	Novel	137	---
PDGFRA	chr4	55121602	C	T	Heterozygous	5.1	16	SNP	Novel	136	---
PDGFRA	chr4	55123746	C	T	Heterozygous	29.3	122	SNP	Novel	58	---
PDGFRA	chr4	55126213	C	G	Heterozygous	26.6	380	SNP	Novel	199	---
PDGFRA	chr4	55133726	T	G	Heterozygous	63.2	699	SNP	Novel	95	---
PDGFRA	chr4	55141055	A	G	Homozygous	100	1915	SNP	Novel	124	---
PDGFRA	chr4	55152040	C	T	Heterozygous	32.1	493	SNP	Novel	193	---
PDGFRA	chr4	55152092	G	T	Heterozygous	7.1	22	SNP	Hotspot	196	COSM12396
PDGFRA	chr4	55152117	T	C	Heterozygous	9	59	SNP	Novel	199	---
PDGFRA	chr4	55161882	C	T	Heterozygous	10.7	52	SNP	Novel	122	---
KIT	chr4	55529180	C	T	Heterozygous	12	50	SNP	Novel	92	---
KIT	chr4	55529200	-	A	Heterozygous	65.6	592	INS	Novel	90	---

KIT	chr4	55566266	G	A	Heterozygous	27.6	50	SNP	Novel	29	---
KIT	chr4	55589793	G	A	Heterozygous	6.2	76	SNP	Novel	709	---
KIT	chr4	55589805	G	A	Heterozygous	5.4	53	SNP	Novel	707	---
KIT	chr4	55592158	C	T	Heterozygous	4.6	24	SNP	Novel	409	---
KIT	chr4	55592216	G	A	Heterozygous	6	46	SNP	Novel	414	---
KIT	chr4	55593440	G	A	Heterozygous	15	228	SNP	Novel	326	---
KIT	chr4	55593496	C	T	Heterozygous	8.7	81	SNP	Novel	322	---
KIT	chr4	55593695	C	T	Heterozygous	24.7	257	SNP	Novel	150	---
ROS1	chr6	117638379	G	A	Heterozygous	14	89	SNP	Novel	136	---
ESR1	chr6	152419913	G	A	Heterozygous	9.2	76	SNP	Novel	262	---
ESR1	chr6	152419915	G	A	Heterozygous	14.4	169	SNP	Novel	257	---
EGFR	chr7	55199001	C	T	Heterozygous	8.5	50	SNP	Novel	188	---
EGFR	chr7	55199005	C	T	Heterozygous	6.5	29	SNP	Novel	186	---
EGFR	chr7	55199047	C	T	Heterozygous	3.8	10	SNP	Novel	182	---
EGFR	chr7	55211097	G	A	Heterozygous	4.6	25	SNP	Novel	453	---
EGFR	chr7	55221829	C	T	Heterozygous	19.7	145	SNP	Novel	127	---
EGFR	chr7	55221842	C	T	Heterozygous	13.1	79	SNP	Novel	130	---
EGFR	chr7	55221883	A	G	Heterozygous	8.1	36	SNP	Novel	136	---
EGFR	chr7	55228042	G	A	Heterozygous	6.2	19	SNP	Novel	96	---
EGFR	chr7	55228053	A	-	Homozygous	100	1372	DEL	Novel	93	---
EGFR	chr7	55241677	G	A	Heterozygous	7.6	64	SNP	Hotspot	592	COSM12988
EGFR	chr7	55241712	C	T	Heterozygous	6.3	68	SNP	Novel	585	---
EGFR	chr7	55241723	G	A	Heterozygous	4.5	27	SNP	Novel	581	---
EGFR	chr7	55241728	G	A	Heterozygous	4.6	28	SNP	Novel	571	---
EGFR	chr7	55242414	G	A	Heterozygous	50.5	501	SNP	Novel	103	---
EGFR	chr7	55249063	G	A	Heterozygous	74.4	1106	SNP	Novel	121	---
EGFR	chr7	55249097	C	T	Heterozygous	11	54	SNP	Novel	118	---
EGFR	chr7	55259429	G	A	Heterozygous	10.8	55	SNP	Novel	130	---
EGFR	chr7	55259469	G	A	Heterozygous	10.1	49	SNP	Novel	129	---
MET	chr7	116313540	C	T	Heterozygous	13.3	53	SNP	Novel	83	---
MET	chr7	116339418	G	A	Heterozygous	8.1	94	SNP	Novel	444	---
MET	chr7	116339431	G	A	Heterozygous	8.4	100	SNP	Novel	442	---
MET	chr7	116340214	G	A	Heterozygous	8.2	115	SNP	Novel	552	---
MET	chr7	116340289	G	A	Heterozygous	8.1	115	SNP	Novel	554	---
MET	chr7	116398769	C	T	Heterozygous	4.1	14	SNP	Novel	270	---
MET	chr7	116398777	C	T	Heterozygous	4.1	14	SNP	Novel	270	---
MET	chr7	116398798	C	T	Heterozygous	6.7	42	SNP	Novel	268	---
MET	chr7	116403172	G	A	Heterozygous	8.2	48	SNP	Novel	196	---

MET	chr7	116403173	C	T	Heterozygous	8.7	54	SNP	Novel	196	---
MET	chr7	116403202	C	T	Heterozygous	11.5	88	SNP	Novel	191	---
MET	chr7	116403209	G	A	Heterozygous	4.7	16	SNP	Novel	190	---
MET	chr7	116403212	G	A	Heterozygous	10.1	68	SNP	Novel	189	---
MET	chr7	116417442	G	A	Heterozygous	17.4	91	SNP	Novel	92	---
MET	chr7	116423422	G	A	Heterozygous	6.6	61	SNP	Novel	455	---
MET	chr7	116423433	T	C	Heterozygous	6.4	57	SNP	Novel	454	---
MET	chr7	116423461	C	T	Heterozygous	5.3	36	SNP	Novel	455	---
MET	chr7	116423466	G	A	Heterozygous	11	178	SNP	Novel	455	---
MET	chr7	116423476	G	A	Heterozygous	9.7	138	SNP	Novel	455	---
SMO	chr7	128845575	G	A	Heterozygous	14.6	183	SNP	Novel	274	---
SMO	chr7	128846340	G	A	Heterozygous	3.9	21	SNP	Novel	720	---
SMO	chr7	128846349	G	A	Heterozygous	4.1	24	SNP	Novel	728	---
SMO	chr7	128846365	G	A	Heterozygous	4.3	28	SNP	Novel	726	---
SMO	chr7	128846377	C	T	Heterozygous	4.5	33	SNP	Novel	728	---
SMO	chr7	128850307	G	A	Heterozygous	7.2	78	SNP	Novel	485	---
SMO	chr7	128850320	C	T	Heterozygous	5.3	38	SNP	Novel	492	---
SMO	chr7	128850324	C	T	Heterozygous	6.5	62	SNP	Novel	494	---
SMO	chr7	128850363	G	A	Heterozygous	12.7	248	SNP	Novel	490	---
BRAF	chr7	140434412	C	T	Heterozygous	6.2	54	SNP	Novel	468	---
BRAF	chr7	140453219	C	T	Heterozygous	19.5	95	SNP	Novel	82	---
BRAF	chr7	140481408	G	A	Heterozygous	10.4	124	SNP	Novel	345	---
BRAF	chr7	140481445	C	T	Heterozygous	10.9	133	SNP	Novel	338	---
BRAF	chr7	140494231	G	A	Heterozygous	4.7	14	SNP	Novel	149	---
BRAF	chr7	140494278	G	A	Heterozygous	7.5	33	SNP	Novel	147	---
BRAF	chr7	140500253	G	A	Heterozygous	3.4	12	SNP	Novel	554	---
BRAF	chr7	140501264	G	A	Heterozygous	7.8	98	SNP	Novel	511	---
BRAF	chr7	140501294	G	A	Heterozygous	3.5	12	SNP	Novel	521	---
BRAF	chr7	140501327	C	T	Heterozygous	4.7	29	SNP	Novel	511	---
BRAF	chr7	140507789	C	T	Heterozygous	4.8	19	SNP	Novel	250	---
BRAF	chr7	140507856	C	T	Heterozygous	10.4	89	SNP	Novel	251	---
RET	chr10	43609081	C	T	Heterozygous	34.2	315	SNP	Novel	117	---
RET	chr10	43609882	G	A	Heterozygous	4.2	13	SNP	Novel	212	---
RET	chr10	43613800	C	T	Heterozygous	5.9	47	SNP	Novel	457	---
RET	chr10	43613826	G	A	Heterozygous	11.3	189	SNP	Novel	460	---
RET	chr10	43613843	G	T	Heterozygous	10.5	164	SNP	Novel	456	---
RET	chr10	43615550	G	A	Heterozygous	20.5	250	SNP	Novel	200	---
RET	chr10	43615582	G	A	Heterozygous	18.7	215	SNP	Novel	209	---

RET	chr10	43615588	G	A	Heterozygous	5.8	26	SNP	Novel	208	---
RET	chr10	43615633	C	G	Homozygous	100	3169	SNP	Novel	205	---
RET	chr10	43615643	A	G	Heterozygous	5.9	26	SNP	Novel	203	---
RET	chr10	43615659	G	A	Heterozygous	6	26	SNP	Novel	199	---
FGFR2	chr10	123247545	C	T	Heterozygous	4	17	SNP	Novel	478	---
FGFR2	chr10	123247580	G	A	Heterozygous	7.8	90	SNP	Novel	477	---
FGFR2	chr10	123247587	G	A	Heterozygous	7.1	75	SNP	Novel	476	---
FGFR2	chr10	123258015	G	A	Heterozygous	4.1	17	SNP	Novel	387	---
FGFR2	chr10	123274722	C	T	Heterozygous	20.6	220	SNP	Novel	180	---
FGFR2	chr10	123274768	C	T	Heterozygous	15.1	135	SNP	Novel	186	---
FGFR2	chr10	123274782	G	A	Heterozygous	16.8	161	SNP	Novel	185	---
FGFR2	chr10	123279690	G	A	Heterozygous	15.2	209	SNP	Novel	290	---
FGFR2	chr10	123279694	G	A	Heterozygous	7.2	52	SNP	Novel	290	---
FGFR2	chr10	123284068	C	T	Heterozygous	9.3	69	SNP	Novel	225	---
FGFR2	chr10	123284076	G	A	Heterozygous	13.2	129	SNP	Novel	227	---
FGFR2	chr10	123284160	G	A	Heterozygous	5.9	28	SNP	Novel	219	---
FGFR2	chr10	123284170	G	A	Heterozygous	10.5	83	SNP	Novel	219	---
FGFR2	chr10	123306101	C	T	Heterozygous	6	30	SNP	Novel	234	---
FGFR2	chr10	123312222	C	T	Heterozygous	56.2	304	SNP	Novel	48	---
FGFR2	chr10	123354431	C	T	Heterozygous	3.7	12	SNP	Novel	321	---
FGFR2	chr10	123354461	G	A	Heterozygous	4.7	22	SNP	Novel	316	---
HRAS	chr11	533862	C	T	Heterozygous	17.9	161	SNP	Novel	168	---
HRAS	chr11	533896	C	T	Heterozygous	10.2	63	SNP	Novel	166	---
HRAS	chr11	533904	C	T	Heterozygous	13.3	98	SNP	Novel	166	---
HRAS	chr11	533927	C	T	Heterozygous	18	158	SNP	Novel	161	---
HRAS	chr11	534302	C	T	Heterozygous	8.5	114	SNP	Novel	494	---
HRAS	chr11	534308	C	T	Heterozygous	8.3	109	SNP	Novel	493	---
HRAS	chr11	534324	G	A	Heterozygous	7.3	82	SNP	Novel	492	---
KRAS	chr12	25364787	C	T	Heterozygous	5.1	15	SNP	Novel	79	---
KRAS	chr12	25364840	C	T	Heterozygous	17.3	72	SNP	Novel	75	---
KRAS	chr12	25386055	C	T	Heterozygous	21.7	69	SNP	Novel	46	---
KRAS	chr12	25386063	C	A	Heterozygous	98	700	SNP	Novel	51	---
KRAS	chr12	25386079	C	T	Heterozygous	18.5	64	SNP	Novel	54	---
KRAS	chr12	25387181	C	T	Heterozygous	9.8	48	SNP	Novel	132	---
KRAS	chr12	25389182	A	G	Heterozygous	67.3	1628	SNP	Novel	208	---
KRAS	chr12	25389220	A	G	Heterozygous	66.3	1528	SNP	Novel	193	---
KRAS	chr12	25398240	G	A	Heterozygous	8.5	37	SNP	Novel	129	---
KRAS	chr12	25398260	G	A	Heterozygous	21.7	173	SNP	Novel	129	---

KRAS	chr12	25398284	C	T	Heterozygous	17.9	95	SNP	Hotspot	123	COSM521
KRAS	chr12	25400206	G	T	Heterozygous	45.3	366	SNP	Novel	86	---
ERBB3	chr12	56477590	C	T	Heterozygous	6.6	41	SNP	Novel	272	---
ERBB3	chr12	56477608	C	T	Heterozygous	5.9	33	SNP	Novel	271	---
ERBB3	chr12	56477677	C	T	Heterozygous	12.2	136	SNP	Novel	278	---
ERBB3	chr12	56477694	A	T	Heterozygous	93	3678	SNP	Novel	270	---
ERBB3	chr12	56478821	G	A	Heterozygous	11.9	165	SNP	Novel	362	---
ERBB3	chr12	56478828	C	T	Heterozygous	8.8	94	SNP	Novel	362	---
ERBB3	chr12	56478869	C	T	Heterozygous	8.4	84	SNP	Novel	356	---
ERBB3	chr12	56478895	C	T	Heterozygous	4	14	SNP	Novel	350	---
ERBB3	chr12	56481616	C	T	Heterozygous	15.4	155	SNP	Novel	201	---
ERBB3	chr12	56481664	G	T	Heterozygous	7.8	46	SNP	Novel	204	---
ERBB3	chr12	56481674	G	A	Heterozygous	21.6	273	SNP	Novel	208	---
ERBB3	chr12	56482297	C	T	Heterozygous	17.6	311	SNP	Novel	335	---
ERBB3	chr12	56482351	C	T	Heterozygous	15	234	SNP	Novel	333	---
ERBB3	chr12	56482352	C	T	Heterozygous	9.9	108	SNP	Novel	334	---
ERBB3	chr12	56482529	C	T	Heterozygous	17.6	258	SNP	Novel	278	---
CDK4	chr12	58142103	C	T	Heterozygous	12.7	45	SNP	Novel	71	---
CDK4	chr12	58142139	C	T	Heterozygous	21.9	100	SNP	Novel	73	---
CDK4	chr12	58142149	A	G	Heterozygous	5.8	14	SNP	Novel	69	---
CDK4	chr12	58142291	G	A	Heterozygous	5.7	27	SNP	Novel	227	---
CDK4	chr12	58142919	C	T	Heterozygous	7.9	86	SNP	Novel	444	---
CDK4	chr12	58142976	G	A	Heterozygous	8.8	111	SNP	Novel	441	---
CDK4	chr12	58142982	C	T	Heterozygous	3.5	11	SNP	Novel	433	---
CDK4	chr12	58143274	C	T	Heterozygous	7.1	52	SNP	Novel	311	---
CDK4	chr12	58143314	C	T	Heterozygous	12.4	155	SNP	Novel	306	---
CDK4	chr12	58144428	G	A	Heterozygous	32.4	257	SNP	Novel	102	---
CDK4	chr12	58144462	G	A	Heterozygous	32.4	258	SNP	Novel	102	---
CDK4	chr12	58144631	G	A	Heterozygous	19.3	150	SNP	Novel	135	---
CDK4	chr12	58144644	C	T	Heterozygous	14.1	90	SNP	Novel	135	---
CDK4	chr12	58144665	C	T	Homozygous	100	2122	SNP	Novel	135	---
CDK4	chr12	58144887	G	A	Heterozygous	9.9	147	SNP	Novel	464	---
CDK4	chr12	58144917	C	T	Heterozygous	10.9	179	SNP	Novel	466	---
CDK4	chr12	58145437	T	C	Heterozygous	6.1	10	SNP	Novel	66	---
CDK4	chr12	58145478	G	A	Heterozygous	10.8	33	SNP	Novel	65	---
CDK4	chr12	58145715	C	T	Heterozygous	16.8	155	SNP	Novel	179	---
CDK4	chr12	58145755	C	T	Heterozygous	15.5	149	SNP	Novel	194	---
CDK4	chr12	58145770	C	T	Heterozygous	7.5	42	SNP	Novel	200	---

CDK4	chr12	58145958	C	T	Heterozygous	3	12	SNP	Novel	1747	---
CDK4	chr12	58146020	C	T	Heterozygous	3.4	20	SNP	Novel	1730	---
AKT1	chr14	105246578	C	T	Heterozygous	71.7	415	SNP	Novel	46	---
MAP2K1	chr15	66729145	T	C	Heterozygous	15.9	198	SNP	Novel	258	---
MAP2K1	chr15	66729218	C	T	Heterozygous	10.2	112	SNP	Novel	323	---
IDH2	chr15	90631859	G	A	Heterozygous	27.6	285	SNP	Novel	145	---
IDH2	chr15	90631920	C	T	Heterozygous	21.5	198	SNP	Novel	144	---
ERBB2	chr17	37868173	C	T	Heterozygous	14.5	108	SNP	Novel	152	---
ERBB2	chr17	37868193	C	T	Heterozygous	14.5	108	SNP	Novel	152	---
ERBB2	chr17	37868224	C	T	Heterozygous	12.3	84	SNP	Novel	154	---
ERBB2	chr17	37872404	C	T	Heterozygous	8.4	43	SNP	Novel	154	---
ERBB2	chr17	37872426	C	T	Heterozygous	19	162	SNP	Novel	153	---
ERBB2	chr17	37872442	C	T	Heterozygous	22.7	203	SNP	Novel	141	---
ERBB2	chr17	37872476	C	T	Heterozygous	6.9	28	SNP	Novel	144	---
ERBB2	chr17	37879820	G	A	Heterozygous	3.4	14	SNP	Novel	1005	---
ERBB2	chr17	37879859	G	A	Heterozygous	4.6	45	SNP	Novel	1023	---
ERBB2	chr17	37879880	G	A	Heterozygous	5.4	71	SNP	Novel	1027	---
ERBB2	chr17	37879892	C	T	Heterozygous	3.5	18	SNP	Novel	1024	---
ERBB2	chr17	37880225	G	T	Heterozygous	10.3	89	SNP	Novel	242	---
ERBB2	chr17	37880271	C	T	Heterozygous	16.4	213	SNP	Novel	256	---
ERBB2	chr17	37880286	G	A	Heterozygous	17.7	241	SNP	Novel	254	---
ERBB2	chr17	37880299	G	A	Heterozygous	4.7	19	SNP	Novel	254	---
ERBB2	chr17	37880321	C	G	Heterozygous	3.8	12	SNP	Novel	260	---
ERBB2	chr17	37881041	G	A	Heterozygous	13.3	215	SNP	Novel	383	---
ERBB2	chr17	37881060	G	A	Heterozygous	13.2	208	SNP	Novel	380	---
ERBB2	chr17	37881615	C	T	Heterozygous	53.3	499	SNP	Novel	90	---
ERBB2	chr17	37882891	C	T	Heterozygous	6.9	64	SNP	Novel	419	---
ERBB2	chr17	37882910	C	T	Heterozygous	12.1	196	SNP	Novel	423	---
ERBB2	chr17	37883167	C	T	Heterozygous	13.6	123	SNP	Novel	199	---
ERBB2	chr17	37883173	C	T	Heterozygous	8.6	52	SNP	Novel	198	---
GNA11	chr19	3118887	C	T	Heterozygous	4	27	SNP	Novel	981	---
GNA11	chr19	3118919	C	T	Heterozygous	3.3	14	SNP	Novel	990	---
GNA11	chr19	3118944	C	T	Heterozygous	5.1	58	SNP	Novel	989	---
MAP2K2	chr19	4117558	C	T	Heterozygous	26	270	SNP	Novel	146	---
JAK3	chr19	17945955	C	T	Heterozygous	5.5	35	SNP	Novel	382	---
JAK3	chr19	17945957	T	C	Heterozygous	5.5	35	SNP	Novel	383	---
JAK3	chr19	17948829	C	T	Heterozygous	12	139	SNP	Novel	292	---
JAK3	chr19	17949123	G	A	Heterozygous	7.5	139	SNP	Novel	843	---

JAK3	chr19	17949130	G	A	Heterozygous	3.5	16	SNP	Novel	847	---
JAK3	chr19	17949137	G	A	Heterozygous	4.4	36	SNP	Novel	845	---
JAK3	chr19	17949144	C	T	Heterozygous	4.3	32	SNP	Novel	857	---
JAK3	chr19	17949179	C	T	Heterozygous	5.7	72	SNP	Novel	859	---
JAK3	chr19	17949180	C	T	Heterozygous	5.3	61	SNP	Novel	860	---
AR	chrX	66866150	G	A	Heterozygous	43.1	214	SNP	Novel	58	---
AR	chrX	66906881	G	A	Heterozygous	14.8	146	SNP	Novel	210	---
AR	chrX	66906923	G	A	Heterozygous	15.9	165	SNP	Novel	207	---
AR	chrX	66917668	C	T	Heterozygous	38.5	76	SNP	Novel	26	---
AR	chrX	66943522	C	T	Heterozygous	5.4	50	SNP	Novel	669	---
AR	chrX	66943560	C	T	Heterozygous	7.7	75	SNP	Novel	698	---
AR	chrX	66945128	G	A	Heterozygous	20.6	133	SNP	Novel	107	---