

# Data Sheet

Product Name: CancerSeq AMS Paraffin Tissue Curl

Catalog No.: T2235152-AC

Lot No.: C201089

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: 55 year(s) old  
Female: \_\_\_\_\_ year(s) old

Pathological Diagnosis: Adenocarcinoma

Tumor Size: diameter 7.5 cm

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

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Gene ID	Chrom	Position	Ref	Variant	Allele Call	Frequency	Quality	Type	Allele Source	Coverage	Allele Name
MTOR	chr1	11174374	C	T	Heterozygous	3.4	13	SNP	Novel	765	---
MTOR	chr1	11174403	G	A	Heterozygous	4.5	33	SNP	Novel	761	---
MTOR	chr1	11174416	G	A	Heterozygous	3.4	13	SNP	Novel	767	---
MTOR	chr1	11174417	C	T	Heterozygous	4.4	32	SNP	Novel	767	---
MTOR	chr1	11174448	C	T	Heterozygous	5.5	60	SNP	Novel	761	---
MTOR	chr1	11184617	C	T	Heterozygous	7.1	63	SNP	Novel	396	---
MTOR	chr1	11184653	G	A	Heterozygous	10.2	133	SNP	Novel	393	---
MTOR	chr1	11184654	C	T	Heterozygous	8.4	91	SNP	Novel	392	---
MTOR	chr1	11188182	G	A	Heterozygous	5.9	36	SNP	Novel	320	---
MTOR	chr1	11188254	G	A	Heterozygous	7.4	59	SNP	Novel	324	---
MTOR	chr1	11188273	G	A	Heterozygous	4.8	22	SNP	Novel	315	---
MTOR	chr1	11189793	A	G	Heterozygous	8.6	98	SNP	Novel	407	---
MTOR	chr1	11189819	C	T	Heterozygous	8.1	87	SNP	Novel	407	---
MTOR	chr1	11189857	G	A	Heterozygous	6.4	52	SNP	Novel	406	---
MTOR	chr1	11189875	C	T	Heterozygous	6.7	57	SNP	Novel	406	---
MTOR	chr1	11190767	C	T	Heterozygous	5.2	34	SNP	Novel	446	---
MTOR	chr1	11190796	C	T	Heterozygous	6.6	63	SNP	Novel	468	---
MTOR	chr1	11190838	G	A	Heterozygous	7.7	87	SNP	Novel	470	---
MTOR	chr1	11190875	A	G	Heterozygous	4.9	30	SNP	Novel	472	---
MTOR	chr1	11190890	C	T	Heterozygous	6.9	68	SNP	Novel	466	---
JAK1	chr1	65310465	G	A	Heterozygous	6	72	SNP	Novel	711	---
JAK1	chr1	65310489	T	C	Heterozygous	50.3	3598	SNP	Novel	710	---
JAK1	chr1	65310510	G	A	Heterozygous	6.3	80	SNP	Novel	713	---
JAK1	chr1	65310557	C	T	Heterozygous	3.3	12	SNP	Novel	692	---
JAK1	chr1	65312279	C	T	Heterozygous	7.4	97	SNP	Novel	580	---
JAK1	chr1	65312287	C	T	Heterozygous	4.9	36	SNP	Novel	586	---
JAK1	chr1	65312360	G	A	Heterozygous	4.9	40	SNP	Novel	672	---
JAK1	chr1	65312363	G	A	Heterozygous	4.9	39	SNP	Novel	672	---
NRAS	chr1	115252288	A	G	Heterozygous	4.8	23	SNP	Novel	333	---
NRAS	chr1	115256533	C	T	Heterozygous	3.4	25	SNP	Novel	1973	---
NRAS	chr1	115258774	T	C	Heterozygous	3.8	24	SNP	Novel	962	---
DDR2	chr1	162724553	G	A	Heterozygous	6.9	28	SNP	Novel	144	---
DDR2	chr1	162724560	G	A	Heterozygous	7.7	34	SNP	Novel	142	---
DDR2	chr1	162724594	C	A	Heterozygous	5.1	16	SNP	Novel	136	---
ALK	chr2	29416108	C	T	Heterozygous	7.9	42	SNP	Novel	178	---

ALK	chr2	29416112	C	T	Heterozygous	12.3	92	SNP	Novel	179	---
ALK	chr2	29416148	C	T	Heterozygous	12.2	91	SNP	Novel	181	---
ALK	chr2	29416199	C	T	Heterozygous	10.4	64	SNP	Novel	163	---
ALK	chr2	29416329	G	A	Heterozygous	3.9	18	SNP	Novel	569	---
ALK	chr2	29416334	G	A	Heterozygous	5	38	SNP	Novel	575	---
ALK	chr2	29416351	C	T	Heterozygous	3.4	12	SNP	Novel	582	---
ALK	chr2	29416366	G	C	Heterozygous	34.7	1665	SNP	Novel	585	---
ALK	chr2	29416373	G	A	Heterozygous	3.8	16	SNP	Novel	585	---
ALK	chr2	29416406	G	A	Heterozygous	3.6	14	SNP	Novel	612	---
ALK	chr2	29416572	T	C	Homozygous	100	6832	SNP	Novel	430	---
ALK	chr2	29416666	C	T	Heterozygous	8.9	113	SNP	Novel	451	---
ALK	chr2	29436932	G	A	Heterozygous	6.9	43	SNP	Novel	261	---
ALK	chr2	29436934	G	A	Heterozygous	6.5	38	SNP	Novel	261	---
ALK	chr2	29436941	G	A	Heterozygous	6.5	38	SNP	Novel	261	---
ALK	chr2	29443617	C	T	Heterozygous	8.8	120	SNP	Novel	443	---
ALK	chr2	29443646	G	A	Heterozygous	8.4	109	SNP	Novel	488	---
ALK	chr2	29445293	G	A	Heterozygous	3.7	25	SNP	Novel	1271	---
ALK	chr2	29445304	G	A	Heterozygous	3.8	27	SNP	Novel	1265	---
ALK	chr2	29445445	C	T	Heterozygous	4.3	44	SNP	Novel	1327	---
ALK	chr2	29445456	G	A	Heterozygous	4	34	SNP	Novel	1324	---
ALK	chr2	29445458	G	T	Heterozygous	43.9	5450	SNP	Novel	1320	---
ALK	chr2	29445469	G	A	Heterozygous	3.1	12	SNP	Novel	1308	---
ALK	chr2	29497936	G	A	Heterozygous	6.1	53	SNP	Novel	475	---
ALK	chr2	29497960	C	T	Heterozygous	4.2	20	SNP	Novel	478	---
IDH1	chr2	209113116	C	T	Heterozygous	3.2	15	SNP	Novel	1354	---
ERBB4	chr2	212488777	G	A	Heterozygous	3.1	16	SNP	Novel	2349	---
RAF1	chr3	12632362	G	A	Heterozygous	3.6	20	SNP	Novel	1153	---
RAF1	chr3	12632370	G	A	Heterozygous	3.4	16	SNP	Novel	1158	---
RAF1	chr3	12632380	G	A	Heterozygous	4.2	38	SNP	Novel	1159	---
CTNNB1	chr3	41266033	G	A	Heterozygous	13.5	97	SNP	Novel	156	---
CTNNB1	chr3	41266094	C	T	Heterozygous	9.1	59	SNP	Novel	198	---
CTNNB1	chr3	41266103	G	A	Heterozygous	17.9	150	SNP	Hotspot	195	COSM5686
PIK3CA	chr3	178916744	C	T	Heterozygous	8.2	22	SNP	Novel	61	---
PIK3CA	chr3	178916750	A	G	Heterozygous	4.9	11	SNP	Novel	61	---
PIK3CA	chr3	178916903	C	T	Heterozygous	5.8	34	SNP	Novel	310	---
PIK3CA	chr3	178916920	G	A	Heterozygous	4.5	19	SNP	Novel	309	---
PIK3CA	chr3	178921479	G	A	Heterozygous	5.5	37	SNP	Novel	456	---
PIK3CA	chr3	178921483	C	T	Heterozygous	5.9	47	SNP	Novel	457	---

PIK3CA	chr3	178921489	C	T	Heterozygous	7.9	91	SNP	Novel	457	---
PIK3CA	chr3	178921564	G	A	Heterozygous	6.2	56	SNP	Novel	482	---
PIK3CA	chr3	178922274	C	A	Heterozygous	65.5	1260	SNP	Novel	168	---
PIK3CA	chr3	178922354	A	G	Heterozygous	12.4	88	SNP	Novel	169	---
PIK3CA	chr3	178928022	G	A	Heterozygous	4.4	23	SNP	Novel	475	---
PIK3CA	chr3	178936080	C	T	Heterozygous	14.1	100	SNP	Novel	156	---
PIK3CA	chr3	178938836	G	A	Heterozygous	17.6	219	SNP	Novel	233	---
PIK3CA	chr3	178938861	C	T	Heterozygous	11.1	98	SNP	Novel	235	---
PIK3CA	chr3	178951997	G	A	Heterozygous	6.5	60	SNP	Novel	460	---
PIK3CA	chr3	178952081	G	A	Heterozygous	4.4	9	SNP	Hotspot	459	COSM27273
PIK3CA	chr3	178952094	G	A	Heterozygous	4.6	25	SNP	Novel	457	---
FGFR3	chr4	1797300	G	A	Heterozygous	5.6	27	SNP	Novel	248	---
FGFR3	chr4	1797314	G	A	Heterozygous	6.5	40	SNP	Novel	277	---
FGFR3	chr4	1801191	A	G	Heterozygous	3.4	14	SNP	Novel	726	---
FGFR3	chr4	1801199	C	T	Heterozygous	3.8	20	SNP	Novel	729	---
FGFR3	chr4	1801204	G	A	Heterozygous	3.3	12	SNP	Novel	727	---
FGFR3	chr4	1801225	G	A	Heterozygous	5.9	66	SNP	Novel	717	---
FGFR3	chr4	1801228	C	T	Heterozygous	4.9	42	SNP	Novel	712	---
FGFR3	chr4	1803569	C	T	Heterozygous	3.6	37	SNP	Novel	2416	---
FGFR3	chr4	1806186	C	T	Heterozygous	4.3	39	SNP	Novel	1109	---
FGFR3	chr4	1807894	G	A	Homozygous	100	39663	SNP	Novel	2498	---
FGFR3	chr4	1809239	G	A	Heterozygous	5.6	34	SNP	Novel	337	---
FGFR3	chr4	1809264	G	A	Heterozygous	8.5	82	SNP	Novel	343	---
FGFR3	chr4	1809274	G	A	Heterozygous	5.6	36	SNP	Novel	342	---
FGFR3	chr4	1809299	C	T	Heterozygous	5.8	37	SNP	Novel	363	---
FGFR3	chr4	1809322	G	A	Heterozygous	5.2	30	SNP	Novel	387	---
FGFR3	chr4	1809333	G	A	Heterozygous	9.8	119	SNP	Novel	377	---
FGFR3	chr4	1809467	C	T	Heterozygous	5	38	SNP	Novel	576	---
FGFR3	chr4	1809475	C	T	Heterozygous	4.7	31	SNP	Novel	575	---
FGFR3	chr4	1809476	C	T	Heterozygous	7.3	93	SNP	Novel	576	---
FGFR3	chr4	1809477	C	T	Heterozygous	5.9	57	SNP	Novel	576	---
FGFR3	chr4	1809484	C	T	Heterozygous	4.5	28	SNP	Novel	580	---
FGFR3	chr4	1809534	C	T	Heterozygous	4.5	28	SNP	Novel	574	---
FGFR3	chr4	1809548	C	T	Heterozygous	4.2	23	SNP	Novel	568	---
FGFR3	chr4	1809549	C	T	Heterozygous	5.1	38	SNP	Novel	569	---
PDGFRA	chr4	55097717	C	T	Heterozygous	5.7	50	SNP	Novel	584	---
PDGFRA	chr4	55097728	C	T	Heterozygous	3.4	12	SNP	Novel	588	---
PDGFRA	chr4	55097751	C	T	Heterozygous	4.7	31	SNP	Novel	579	---

PDGFRA	chr4	55097775	C	T	Heterozygous	3.3	11	SNP	Novel	610	---
PDGFRA	chr4	55097803	C	T	Heterozygous	8	121	SNP	Novel	612	---
PDGFRA	chr4	55097835	G	C	Heterozygous	50.7	3128	SNP	Novel	609	---
PDGFRA	chr4	55104299	C	T	Heterozygous	4	18	SNP	Novel	528	---
PDGFRA	chr4	55121550	G	A	Heterozygous	7.6	69	SNP	Novel	370	---
PDGFRA	chr4	55121568	G	A	Heterozygous	6.8	54	SNP	Novel	368	---
PDGFRA	chr4	55121598	G	A	Heterozygous	6.8	55	SNP	Novel	368	---
PDGFRA	chr4	55123697	C	T	Heterozygous	6.5	33	SNP	Novel	215	---
PDGFRA	chr4	55123758	C	T	Heterozygous	5.6	24	SNP	Novel	216	---
PDGFRA	chr4	55133709	C	T	Heterozygous	5.2	27	SNP	Novel	365	---
PDGFRA	chr4	55133725	G	A	Heterozygous	7.7	71	SNP	Novel	363	---
PDGFRA	chr4	55133726	T	G	Heterozygous	51.2	1870	SNP	Novel	361	---
PDGFRA	chr4	55140995	T	C	Heterozygous	5	22	SNP	Novel	258	---
PDGFRA	chr4	55141027	G	A	Heterozygous	11.4	112	SNP	Novel	255	---
PDGFRA	chr4	55141055	A	G	Homozygous	100	3841	SNP	Novel	251	---
PDGFRA	chr4	55141073	T	C	Heterozygous	12.4	129	SNP	Novel	249	---
PDGFRA	chr4	55141077	G	A	Heterozygous	8.5	62	SNP	Novel	248	---
PDGFRA	chr4	55141080	G	A	Heterozygous	11.7	115	SNP	Novel	248	---
PDGFRA	chr4	55141085	G	A	Heterozygous	12.1	122	SNP	Novel	247	---
PDGFRA	chr4	55144185	G	A	Heterozygous	3.1	18	SNP	Novel	2527	---
PDGFRA	chr4	55152063	T	C	Heterozygous	3.9	15	SNP	Novel	414	---
PDGFRA	chr4	55161887	C	T	Heterozygous	3.6	24	SNP	Novel	1472	---
KIT	chr4	55529177	C	T	Heterozygous	4.2	13	SNP	Novel	191	---
KIT	chr4	55529200	-	A	Heterozygous	49	888	INS	Novel	192	---
KIT	chr4	55566222	G	A	Heterozygous	5.1	16	SNP	Novel	136	---
KIT	chr4	55566266	G	A	Heterozygous	54	773	SNP	Novel	137	---
KIT	chr4	55573096	G	A	Heterozygous	5.6	29	SNP	Novel	266	---
KIT	chr4	55573100	C	T	Heterozygous	13.2	149	SNP	Novel	266	---
KIT	chr4	55589812	G	A	Heterozygous	3.7	39	SNP	Novel	2283	---
KIT	chr4	55592167	G	A	Heterozygous	3.9	37	SNP	Novel	1573	---
KIT	chr4	55593430	C	T	Heterozygous	3.2	12	SNP	Novel	1159	---
KIT	chr4	55593454	C	T	Heterozygous	4.8	58	SNP	Novel	1160	---
KIT	chr4	55593681	G	A	Heterozygous	6.2	42	SNP	Novel	339	---
KIT	chr4	55594178	G	A	Heterozygous	5	32	SNP	Novel	458	---
KIT	chr4	55594180	G	A	Heterozygous	5.7	43	SNP	Novel	458	---
KIT	chr4	55594190	G	A	Heterozygous	5.6	43	SNP	Novel	461	---
KIT	chr4	55594220	C	T	Heterozygous	3.4	11	SNP	Novel	474	---
KIT	chr4	55594227	C	T	Heterozygous	4.4	23	SNP	Novel	477	---

KIT	chr4	55594269	G	A	Heterozygous	3.8	15	SNP	Novel	479	---
KIT	chr4	55598903	A	T	Heterozygous	41.7	1021	SNP	Novel	276	---
KIT	chr4	55598910	G	A	Heterozygous	6.9	41	SNP	Novel	276	---
KIT	chr4	55598912	G	A	Heterozygous	5.1	23	SNP	Novel	276	---
KIT	chr4	55598948	G	A	Heterozygous	6.1	35	SNP	Novel	277	---
KIT	chr4	55599248	G	A	Heterozygous	9.2	105	SNP	Novel	382	---
KIT	chr4	55599320	G	A	Heterozygous	6.8	48	SNP	Hotspot	648	COSM1313
ROS1	chr6	117638334	G	A	Heterozygous	4.9	37	SNP	Novel	656	---
ROS1	chr6	117638350	C	T	Heterozygous	5.3	48	SNP	Novel	662	---
ROS1	chr6	117638366	G	A	Heterozygous	4.3	28	SNP	Novel	668	---
ROS1	chr6	117641083	G	A	Heterozygous	8.2	125	SNP	Novel	597	---
ROS1	chr6	117641145	C	T	Heterozygous	5.5	49	SNP	Novel	598	---
ESR1	chr6	152419925	G	A	Heterozygous	4.4	23	SNP	Novel	474	---
ESR1	chr6	152419930	G	A	Heterozygous	5.9	49	SNP	Novel	474	---
ESR1	chr6	152419931	C	T	Heterozygous	7	71	SNP	Novel	473	---
ESR1	chr6	152419945	G	A	Heterozygous	5.7	44	SNP	Novel	475	---
ESR1	chr6	152420019	C	T	Heterozygous	7.1	74	SNP	Novel	480	---
ESR1	chr6	152420025	C	T	Heterozygous	9	123	SNP	Novel	479	---
EGFR	chr7	55219904	G	A	Heterozygous	3	10	SNP	Novel	861	---
EGFR	chr7	55221800	G	A	Heterozygous	6.1	47	SNP	Novel	425	---
EGFR	chr7	55221802	G	A	Heterozygous	3.9	15	SNP	Novel	440	---
EGFR	chr7	55221825	C	T	Heterozygous	4.4	23	SNP	Novel	482	---
EGFR	chr7	55221864	G	A	Heterozygous	4.2	20	SNP	Novel	523	---
EGFR	chr7	55221917	G	A	Heterozygous	6.8	71	SNP	Novel	499	---
EGFR	chr7	55228014	G	A	Heterozygous	3.7	12	SNP	Novel	383	---
EGFR	chr7	55228047	C	T	Heterozygous	4	16	SNP	Novel	378	---
EGFR	chr7	55242450	T	C	Heterozygous	4.9	26	SNP	Novel	365	---
EGFR	chr7	55242532	G	A	Heterozygous	11.7	157	SNP	Novel	351	---
EGFR	chr7	55248983	C	T	Heterozygous	5.9	50	SNP	Novel	488	---
EGFR	chr7	55249030	C	T	Heterozygous	5.5	42	SNP	Novel	488	---
EGFR	chr7	55249057	C	T	Heterozygous	7.1	76	SNP	Novel	496	---
EGFR	chr7	55249094	C	T	Heterozygous	5.1	34	SNP	Novel	494	---
EGFR	chr7	55249096	C	T	Heterozygous	4.3	21	SNP	Novel	494	---
EGFR	chr7	55259460	G	A	Heterozygous	4.7	42	SNP	Novel	874	---
EGFR	chr7	55259519	C	T	Heterozygous	3.3	13	SNP	Novel	876	---
EGFR	chr7	55259528	G	A	Heterozygous	4.6	40	SNP	Novel	871	---
MET	chr7	116313486	G	A	Heterozygous	4	13	SNP	Novel	247	---
MET	chr7	116339415	C	T	Heterozygous	3.6	14	SNP	Novel	523	---

MET	chr7	116340270	G	A	Heterozygous	3.9	46	SNP	Novel	2261	---
MET	chr7	116403154	C	T	Heterozygous	9.5	110	SNP	Novel	367	---
MET	chr7	116403166	G	A	Heterozygous	12	170	SNP	Novel	366	---
MET	chr7	116403172	G	A	Heterozygous	9.3	104	SNP	Novel	365	---
MET	chr7	116403173	C	T	Heterozygous	8.2	81	SNP	Novel	365	---
MET	chr7	116403238	C	T	Heterozygous	9.7	110	SNP	Novel	349	---
MET	chr7	116412040	G	A	Heterozygous	19	180	SNP	Novel	168	---
MET	chr7	116417434	T	C	Heterozygous	6.4	40	SNP	Novel	298	---
MET	chr7	116417442	G	A	Heterozygous	10.1	105	SNP	Novel	306	---
MET	chr7	116417451	G	A	Heterozygous	9.8	100	SNP	Novel	306	---
MET	chr7	116417468	G	A	Heterozygous	7.5	58	SNP	Novel	307	---
MET	chr7	116417522	C	T	Heterozygous	5.9	35	SNP	Novel	305	---
MET	chr7	116434500	G	A	Heterozygous	6.2	41	SNP	Novel	322	---
MET	chr7	116434502	G	A	Heterozygous	4	15	SNP	Novel	322	---
MET	chr7	116434543	G	A	Heterozygous	6.6	46	SNP	Novel	317	---
SMO	chr7	128845523	T	C	Heterozygous	3.8	14	SNP	Novel	425	---
SMO	chr7	128845537	C	T	Heterozygous	6.1	47	SNP	Novel	425	---
SMO	chr7	128845542	G	A	Heterozygous	5.5	37	SNP	Novel	421	---
SMO	chr7	128845586	T	C	Heterozygous	3.4	10	SNP	Novel	446	---
SMO	chr7	128846343	C	T	Heterozygous	3.6	35	SNP	Novel	2286	---
SMO	chr7	128849116	C	T	Heterozygous	5.2	43	SNP	Novel	640	---
SMO	chr7	128849144	C	T	Heterozygous	5.1	42	SNP	Novel	650	---
SMO	chr7	128849236	G	A	Heterozygous	6	60	SNP	Novel	599	---
BRAF	chr7	140434428	G	A	Heterozygous	5.3	85	SNP	Novel	1365	---
BRAF	chr7	140453110	G	A	Heterozygous	4.5	10	SNP	Novel	67	---
BRAF	chr7	140453148	C	T	Heterozygous	10	31	SNP	Novel	70	---
BRAF	chr7	140476682	T	C	Heterozygous	4.1	19	SNP	Novel	461	---
BRAF	chr7	140476703	G	A	Heterozygous	4.1	19	SNP	Novel	460	---
BRAF	chr7	140476725	C	T	Heterozygous	4.1	19	SNP	Novel	458	---
BRAF	chr7	140476744	T	C	Heterozygous	4.8	28	SNP	Novel	457	---
BRAF	chr7	140476936	G	A	Heterozygous	47	10249	SNP	Novel	2226	---
BRAF	chr7	140481389	C	T	Heterozygous	5.6	94	SNP	Novel	1260	---
BRAF	chr7	140482825	C	T	Heterozygous	4.9	26	SNP	Novel	485	---
BRAF	chr7	140482871	G	A	Heterozygous	4.3	22	SNP	Novel	483	---
BRAF	chr7	140494213	G	A	Heterozygous	3.4	12	SNP	Novel	679	---
BRAF	chr7	140494248	G	A	Heterozygous	3.4	12	SNP	Novel	679	---
BRAF	chr7	140501253	A	G	Heterozygous	5.8	302	SNP	Novel	4000	---
JAK2	chr9	5073799	C	T	Heterozygous	13.6	155	SNP	Novel	257	---



JAK2	chr9	5073842	A	G	Heterozygous	11.5	108	SNP	Novel	244	---
GNAQ	chr9	80409433	C	T	Heterozygous	7.1	53	SNP	Novel	308	---
GNAQ	chr9	80409493	C	T	Heterozygous	6.8	46	SNP	Novel	293	---
GNAQ	chr9	80409494	C	T	Heterozygous	11.3	124	SNP	Novel	291	---
RET	chr10	43609148	C	T	Heterozygous	4.4	29	SNP	Novel	709	---
RET	chr10	43609896	G	A	Heterozygous	5.8	59	SNP	Novel	638	---
RET	chr10	43609930	C	T	Heterozygous	5.1	44	SNP	Novel	661	---
RET	chr10	43609970	C	T	Heterozygous	3.3	11	SNP	Novel	675	---
RET	chr10	43609974	C	T	Heterozygous	3.3	11	SNP	Novel	675	---
RET	chr10	43610002	C	T	Heterozygous	3.6	15	SNP	Novel	666	---
RET	chr10	43615579	G	A	Heterozygous	10.8	128	SNP	Novel	333	---
RET	chr10	43615601	G	A	Heterozygous	6.1	40	SNP	Novel	326	---
RET	chr10	43615636	C	T	Heterozygous	7.8	65	SNP	Novel	321	---
RET	chr10	43615663	C	G	Heterozygous	5.8	31	SNP	Novel	278	---
RET	chr10	43617337	C	A	Heterozygous	6.8	31	SNP	Novel	177	---
RET	chr10	43617359	G	A	Heterozygous	4	11	SNP	Novel	177	---
FGFR2	chr10	123247550	G	A	Heterozygous	5.8	100	SNP	Novel	1202	---
FGFR2	chr10	123247564	C	T	Heterozygous	3.8	27	SNP	Novel	1203	---
FGFR2	chr10	123257961	A	G	Heterozygous	3.4	17	SNP	Novel	1137	---
FGFR2	chr10	123257983	C	T	Heterozygous	3.4	17	SNP	Novel	1147	---
FGFR2	chr10	123274722	C	T	Heterozygous	17.6	391	SNP	Novel	426	---
FGFR2	chr10	123274733	G	A	Heterozygous	5.8	43	SNP	Novel	429	---
FGFR2	chr10	123274753	C	T	Heterozygous	7.5	76	SNP	Novel	429	---
FGFR2	chr10	123274766	C	T	Heterozygous	7.2	71	SNP	Novel	428	---
FGFR2	chr10	123274767	C	T	Heterozygous	3.5	11	SNP	Novel	428	---
FGFR2	chr10	123274783	C	T	Heterozygous	8.6	103	SNP	Novel	429	---
FGFR2	chr10	123274790	C	T	Heterozygous	8.9	109	SNP	Novel	428	---
FGFR2	chr10	123274815	T	C	Heterozygous	5.6	38	SNP	Novel	431	---
FGFR2	chr10	123274821	T	C	Heterozygous	4.2	19	SNP	Novel	431	---
FGFR2	chr10	123276944	C	T	Heterozygous	6.5	92	SNP	Novel	769	---
FGFR2	chr10	123276961	G	A	Heterozygous	3.2	10	SNP	Novel	757	---
FGFR2	chr10	123276981	G	A	Heterozygous	4.9	32	SNP	Novel	465	---
FGFR2	chr10	123279653	G	A	Heterozygous	3.4	16	SNP	Novel	1190	---
FGFR2	chr10	123279697	G	A	Heterozygous	3.3	16	SNP	Novel	1199	---
FGFR2	chr10	123284057	C	T	Heterozygous	5.3	39	SNP	Novel	511	---
FGFR2	chr10	123284065	C	T	Heterozygous	3.9	17	SNP	Novel	515	---
FGFR2	chr10	123284079	C	T	Heterozygous	5.6	46	SNP	Novel	518	---
FGFR2	chr10	123284109	G	A	Heterozygous	6.6	67	SNP	Novel	519	---

FGFR2	chr10	123284127	A	G	Heterozygous	4.5	25	SNP	Novel	514	---
FGFR2	chr10	123284129	C	T	Heterozygous	4.5	25	SNP	Novel	515	---
FGFR2	chr10	123312158	G	A	Heterozygous	6	42	SNP	Novel	364	---
FGFR2	chr10	123312175	G	A	Heterozygous	4	16	SNP	Novel	373	---
FGFR2	chr10	123312181	G	A	Heterozygous	4.3	18	SNP	Novel	373	---
FGFR2	chr10	123312182	C	T	Heterozygous	5.3	32	SNP	Novel	374	---
FGFR2	chr10	123312189	G	A	Heterozygous	5.1	28	SNP	Novel	375	---
FGFR2	chr10	123312256	C	T	Heterozygous	7.3	64	SNP	Novel	369	---
HRAS	chr11	533815	C	T	Heterozygous	6.4	59	SNP	Novel	487	---
HRAS	chr11	533838	C	T	Heterozygous	5	33	SNP	Novel	501	---
HRAS	chr11	533867	C	T	Heterozygous	3.6	13	SNP	Novel	500	---
HRAS	chr11	533888	C	T	Heterozygous	3.8	16	SNP	Novel	495	---
HRAS	chr11	533909	C	T	Heterozygous	3.5	12	SNP	Novel	492	---
HRAS	chr11	533914	C	T	Heterozygous	4.7	28	SNP	Novel	489	---
KRAS	chr12	25364835	C	T	Heterozygous	6.9	47	SNP	Novel	289	---
KRAS	chr12	25364863	C	T	Heterozygous	6.8	44	SNP	Novel	279	---
KRAS	chr12	25378550	G	T	Heterozygous	6.2	35	SNP	Novel	276	---
KRAS	chr12	25378571	C	T	Heterozygous	5.8	33	SNP	Novel	275	---
KRAS	chr12	25378594	C	T	Heterozygous	6.2	33	SNP	Novel	276	---
KRAS	chr12	25378609	G	A	Heterozygous	5	22	SNP	Novel	280	---
KRAS	chr12	25378610	C	T	Heterozygous	5.4	26	SNP	Novel	280	---
KRAS	chr12	25378611	C	T	Heterozygous	4.3	16	SNP	Novel	281	---
KRAS	chr12	25378622	C	T	Heterozygous	6.1	35	SNP	Novel	279	---
KRAS	chr12	25380280	C	T	Heterozygous	3.3	14	SNP	Novel	1104	---
KRAS	chr12	25380289	C	T	Heterozygous	3.2	12	SNP	Novel	1107	---
KRAS	chr12	25380313	C	T	Heterozygous	7.9	204	SNP	Novel	1110	---
KRAS	chr12	25386052	C	T	Heterozygous	5.6	22	SNP	Novel	178	---
KRAS	chr12	25386063	C	A	Homozygous	98.9	2763	SNP	Novel	180	---
KRAS	chr12	25386918	C	T	Heterozygous	5.6	36	SNP	Novel	375	---
KRAS	chr12	25386940	C	T	Heterozygous	52.8	2088	SNP	Novel	381	---
KRAS	chr12	25386944	G	A	Heterozygous	8.4	87	SNP	Novel	380	---
KRAS	chr12	25387009	C	T	Heterozygous	3.2	10	SNP	Novel	379	---
KRAS	chr12	25389182	A	G	Heterozygous	68.3	4578	SNP	Novel	559	---
KRAS	chr12	25389192	G	A	Heterozygous	5	37	SNP	Novel	557	---
KRAS	chr12	25389220	A	G	Heterozygous	68.9	4565	SNP	Novel	543	---
KRAS	chr12	25391143	C	T	Heterozygous	5.6	28	SNP	Novel	267	---
KRAS	chr12	25398198	C	T	Heterozygous	8.8	71	SNP	Novel	260	---
KRAS	chr12	25398210	C	T	Heterozygous	14.2	165	SNP	Novel	261	---

KRAS	chr12	25398228	C	T	Heterozygous	12.9	142	SNP	Novel	264	---
KRAS	chr12	25398230	T	C	Heterozygous	3.8	12	SNP	Novel	263	---
KRAS	chr12	25398241	A	G	Heterozygous	6.1	35	SNP	Novel	278	---
KRAS	chr12	25398290	C	T	Heterozygous	10	92	SNP	Novel	270	---
KRAS	chr12	25400206	G	T	Heterozygous	88	3011	SNP	Novel	241	---
ERBB3	chr12	56477639	C	T	Heterozygous	7	79	SNP	Novel	526	---
ERBB3	chr12	56477694	A	T	Heterozygous	39.7	1831	SNP	Novel	521	---
ERBB3	chr12	56478833	C	T	Heterozygous	3.2	13	SNP	Novel	1048	---
ERBB3	chr12	56478843	C	T	Heterozygous	3.2	13	SNP	Novel	1047	---
ERBB3	chr12	56478850	C	T	Heterozygous	3.3	14	SNP	Novel	1042	---
ERBB3	chr12	56478877	C	T	Heterozygous	6.2	104	SNP	Novel	1037	---
ERBB3	chr12	56478898	C	T	Heterozygous	3.1	10	SNP	Novel	1034	---
ERBB3	chr12	56481582	C	T	Heterozygous	5.4	48	SNP	Novel	635	---
ERBB3	chr12	56481589	C	T	Heterozygous	4.2	25	SNP	Novel	637	---
ERBB3	chr12	56481628	C	T	Heterozygous	3.4	12	SNP	Novel	646	---
ERBB3	chr12	56481661	C	T	Heterozygous	2.9	14	SNP	Novel	646	---
ERBB3	chr12	56481683	G	A	Heterozygous	7	98	SNP	Novel	669	---
ERBB3	chr12	56481687	C	T	Heterozygous	7.5	113	SNP	Novel	667	---
ERBB3	chr12	56481695	T	C	Heterozygous	4	21	SNP	Novel	658	---
ERBB3	chr12	56482316	C	T	Heterozygous	3.9	35	SNP	Novel	1630	---
ERBB3	chr12	56482344	C	T	Heterozygous	4.1	45	SNP	Novel	1622	---
ERBB3	chr12	56482560	C	T	Heterozygous	6	45	SNP	Novel	398	---
CDK4	chr12	58142059	G	A	Heterozygous	7.5	64	SNP	Novel	347	---
CDK4	chr12	58142075	G	A	Heterozygous	7.2	61	SNP	Novel	361	---
CDK4	chr12	58142079	G	A	Heterozygous	5.7	37	SNP	Novel	366	---
CDK4	chr12	58142109	G	A	Heterozygous	6.9	60	SNP	Novel	389	---
CDK4	chr12	58142148	G	A	Heterozygous	9.8	117	SNP	Novel	366	---
CDK4	chr12	58142245	C	T	Heterozygous	10.7	104	SNP	Novel	272	---
CDK4	chr12	58144455	C	T	Heterozygous	8.2	82	SNP	Novel	368	---
CDK4	chr12	58144457	G	A	Heterozygous	4.3	19	SNP	Novel	369	---
CDK4	chr12	58144469	C	A	Heterozygous	5.4	33	SNP	Novel	367	---
CDK4	chr12	58144662	C	T	Heterozygous	8.1	75	SNP	Novel	345	---
CDK4	chr12	58144665	C	T	Heterozygous	60.2	2339	SNP	Novel	344	---
CDK4	chr12	58144890	G	A	Heterozygous	4.4	47	SNP	Novel	1289	---
CDK4	chr12	58144936	G	A	Heterozygous	3.4	17	SNP	Novel	1282	---
CDK4	chr12	58144973	C	T	Heterozygous	3.3	15	SNP	Novel	1221	---
CDK4	chr12	58145365	C	T	Heterozygous	3.9	13	SNP	Novel	363	---
CDK4	chr12	58145401	G	A	Heterozygous	5.8	42	SNP	Novel	394	---

CDK4	chr12	58145413	G	A	Heterozygous	7.8	79	SNP	Novel	395	---
CDK4	chr12	58145746	C	T	Heterozygous	4.9	26	SNP	Novel	367	---
CDK4	chr12	58145750	C	T	Heterozygous	6.5	50	SNP	Novel	370	---
CDK4	chr12	58145751	G	A	Heterozygous	9.2	103	SNP	Novel	369	---
CDK4	chr12	58145758	G	A	Heterozygous	8.9	96	SNP	Novel	372	---
CDK4	chr12	58145775	G	A	Heterozygous	10	121	SNP	Novel	370	---
AKT1	chr14	105246535	C	T	Heterozygous	15.4	121	SNP	Novel	156	---
AKT1	chr14	105246557	C	T	Heterozygous	5.9	22	SNP	Novel	153	---
AKT1	chr14	105246561	C	T	Heterozygous	16.6	135	SNP	Novel	151	---
AKT1	chr14	105246577	G	A	Heterozygous	7.9	38	SNP	Novel	151	---
MAP2K1	chr15	66727461	G	A	Heterozygous	4.9	31	SNP	Novel	535	---
MAP2K1	chr15	66727492	A	G	Heterozygous	3.3	11	SNP	Novel	541	---
MAP2K1	chr15	66729152	G	A	Heterozygous	5.3	30	SNP	Novel	338	---
MAP2K1	chr15	66729159	T	C	Heterozygous	3.7	12	SNP	Novel	383	---
MAP2K1	chr15	66729184	G	A	Heterozygous	11.3	161	SNP	Novel	391	---
MAP2K1	chr15	66729201	G	A	Heterozygous	4.6	23	SNP	Novel	389	---
MAP2K1	chr15	66729202	G	A	Heterozygous	5.1	30	SNP	Novel	390	---
MAP2K1	chr15	66729222	G	A	Heterozygous	7.3	66	SNP	Novel	383	---
MAP2K1	chr15	66774113	C	T	Heterozygous	3.7	17	SNP	Novel	646	---
MAP2K1	chr15	66774118	C	T	Heterozygous	5.1	43	SNP	Novel	647	---
MAP2K1	chr15	66774125	C	T	Heterozygous	4.9	39	SNP	Novel	649	---
MAP2K1	chr15	66774142	C	T	Heterozygous	3.9	19	SNP	Novel	646	---
MAP2K1	chr15	66774164	C	T	Heterozygous	14.4	417	SNP	Novel	654	---
MAP2K1	chr15	66774167	C	T	Heterozygous	6	64	SNP	Novel	654	---
IDH2	chr15	90631847	G	A	Heterozygous	5.7	36	SNP	Novel	371	---
IDH2	chr15	90631854	G	A	Heterozygous	6.7	54	SNP	Novel	371	---
IDH2	chr15	90631859	G	A	Heterozygous	5.7	36	SNP	Novel	371	---
IDH2	chr15	90631943	C	T	Heterozygous	7.1	60	SNP	Novel	364	---
ERBB2	chr17	37868228	C	T	Heterozygous	10.9	135	SNP	Novel	338	---
ERBB2	chr17	37868240	G	A	Heterozygous	4.7	23	SNP	Novel	364	---
ERBB2	chr17	37872376	C	T	Heterozygous	3.7	16	SNP	Novel	623	---
ERBB2	chr17	37872389	C	T	Heterozygous	9.5	180	SNP	Novel	629	---
ERBB2	chr17	37872413	C	T	Heterozygous	4.2	24	SNP	Novel	620	---
ERBB2	chr17	37872420	C	T	Heterozygous	4.5	28	SNP	Novel	605	---
ERBB2	chr17	37872457	C	T	Heterozygous	7.8	94	SNP	Novel	497	---
ERBB2	chr17	37880225	G	A	Heterozygous	4.3	26	SNP	Novel	578	---
ERBB2	chr17	37880232	C	T	Heterozygous	5.6	50	SNP	Novel	594	---
ERBB2	chr17	37880239	C	T	Heterozygous	5.6	50	SNP	Novel	593	---

ERBB2	chr17	37880264	G	A	Heterozygous	5.2	42	SNP	Novel	599	---
ERBB2	chr17	37880311	G	A	Heterozygous	3.5	14	SNP	Novel	622	---
ERBB2	chr17	37880321	C	G	Heterozygous	6	67	SNP	Novel	663	---
ERBB2	chr17	37880330	G	A	Heterozygous	4.1	23	SNP	Novel	661	---
ERBB2	chr17	37881046	C	T	Heterozygous	3.4	21	SNP	Novel	1706	---
ERBB2	chr17	37881355	G	A	Heterozygous	4.1	24	SNP	Novel	651	---
ERBB2	chr17	37881361	G	A	Heterozygous	4.7	35	SNP	Novel	655	---
ERBB2	chr17	37881418	G	A	Heterozygous	9.1	177	SNP	Novel	680	---
ERBB2	chr17	37881453	G	A	Heterozygous	4.7	32	SNP	Novel	620	---
ERBB2	chr17	37881563	C	T	Heterozygous	5.7	39	SNP	Novel	407	---
ERBB2	chr17	37882897	C	T	Heterozygous	3.3	14	SNP	Novel	1159	---
ERBB2	chr17	37883124	G	A	Heterozygous	8.5	70	SNP	Novel	281	---
ERBB2	chr17	37883184	C	T	Heterozygous	7.6	66	SNP	Novel	340	---
GNA11	chr19	3114991	C	T	Heterozygous	10	113	SNP	Novel	340	---
GNA11	chr19	3115011	C	T	Heterozygous	7.9	44	SNP	Novel	343	---
GNA11	chr19	3115022	C	T	Heterozygous	5.6	33	SNP	Novel	342	---
GNA11	chr19	3115069	C	T	Heterozygous	5.8	37	SNP	Novel	344	---
MAP2K2	chr19	4117588	C	T	Heterozygous	3.9	20	SNP	Novel	636	---
MAP2K2	chr19	4117637	C	T	Heterozygous	6.7	81	SNP	Novel	585	---
JAK3	chr19	17945954	C	T	Heterozygous	4.4	19	SNP	Novel	341	---
JAK3	chr19	17945988	G	A	Heterozygous	7.6	68	SNP	Novel	353	---
JAK3	chr19	17948803	C	T	Heterozygous	9.1	102	SNP	Novel	375	---
JAK3	chr19	17948852	C	T	Heterozygous	8.3	84	SNP	Novel	375	---
AR	chrX	66866188	G	A	Heterozygous	7.5	85	SNP	Novel	479	---
AR	chrX	66906868	C	T	Heterozygous	3.3	18	SNP	Novel	1562	---
AR	chrX	66915190	C	T	Heterozygous	9.4	100	SNP	Novel	341	---
AR	chrX	66915206	C	T	Heterozygous	9	93	SNP	Novel	344	---
AR	chrX	66915242	C	T	Heterozygous	5.7	36	SNP	Novel	348	---
AR	chrX	66915289	G	A	Heterozygous	4.4	19	SNP	Novel	341	---
AR	chrX	66938983	C	T	Heterozygous	6.4	64	SNP	Novel	532	---
AR	chrX	66938985	C	T	Heterozygous	6	55	SNP	Novel	531	---
AR	chrX	66941800	G	A	Heterozygous	15.5	164	SNP	Novel	220	---
AR	chrX	66941832	C	G	Heterozygous	6.8	38	SNP	Novel	222	---
AR	chrX	66945126	C	T	Heterozygous	4.5	19	SNP	Novel	337	---
AR	chrX	66945170	G	T	Heterozygous	4.6	21	SNP	Novel	351	---
AR	chrX	66945219	C	T	Heterozygous	6.4	47	SNP	Novel	361	---