

Data Sheet

Product Name: CancerSeq AMS Paraffin Tissue Curl

Catalog No.: T2235152-AC

Lot No.: C201065

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

Pathological Diagnosis: Adenocarcinoma

Tumor Size: diameter 4.5 cm

Location: left upper 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)

C201065

Gene ID	Chrom	Position	Ref	Variant	Allele Call	Frequency	Quality	Type	Allele Source	Coverage	Allele Name
MTOR	chr1	11174448	C	A	Heterozygous	6.2	36	SNP	Novel	273	---
MTOR	chr1	11184542	G	A	Heterozygous	6.1	35	SNP	Novel	277	---
MTOR	chr1	11184604	C	T	Heterozygous	3.6	10	SNP	Novel	278	---
MTOR	chr1	11184617	C	T	Heterozygous	4	13	SNP	Novel	278	---
MTOR	chr1	11188056	CC	TT	Heterozygous	3.9	29	MNP	Novel	1118	---
MTOR	chr1	11188215	G	A	Heterozygous	14.1	135	SNP	Novel	213	---
MTOR	chr1	11190894	G	A	Heterozygous	16	184	SNP	Novel	231	---
MTOR	chr1	11217288	C	T	Heterozygous	4.4	42	SNP	Novel	1136	---
JAK1	chr1	65310479	G	A	Heterozygous	3.5	16	SNP	Novel	827	---
JAK1	chr1	65310489	T	C	Heterozygous	34.7	2359	SNP	Novel	829	---
JAK1	chr1	65310506	C	T	Heterozygous	4	24	SNP	Novel	830	---
JAK1	chr1	65310510	G	A	Heterozygous	3.1	10	SNP	Novel	831	---
JAK1	chr1	65310511	C	T	Heterozygous	3.7	20	SNP	Novel	830	---
JAK1	chr1	65310530	G	A	Heterozygous	6.2	85	SNP	Novel	828	---
JAK1	chr1	65310555	G	A	Heterozygous	4.2	29	SNP	Novel	833	---
JAK1	chr1	65312291	C	T	Heterozygous	9.8	116	SNP	Novel	367	---
JAK1	chr1	65312323	C	T	Heterozygous	4.9	28	SNP	Novel	406	---
NRAS	chr1	115252221	G	A	Heterozygous	3.4	11	SNP	Novel	407	---
NRAS	chr1	115252235	C	T	Heterozygous	4.7	24	SNP	Novel	407	---
NRAS	chr1	115252238	G	A	Heterozygous	6.9	61	SNP	Novel	407	---
NRAS	chr1	115252297	C	T	Heterozygous	4.4	21	SNP	Novel	410	---
NRAS	chr1	115258691	C	T	Heterozygous	3.1	13	SNP	Novel	1540	---
NRAS	chr1	115258694	C	T	Heterozygous	3.1	14	SNP	Novel	1540	---
DDR2	chr1	162724509	T	C	Heterozygous	3.9	10	SNP	Novel	127	---
DDR2	chr1	162724598	C	T	Heterozygous	13.2	56	SNP	Hotspot	121	COSM4024594
ALK	chr2	29416088	G	A	Heterozygous	5.5	15	SNP	Novel	91	---
ALK	chr2	29416121	C	T	Heterozygous	2.3	11	SNP	Novel	86	---
ALK	chr2	29416149	C	T	Heterozygous	5.5	15	SNP	Novel	91	---
ALK	chr2	29416178	G	A	Heterozygous	11.6	45	SNP	Novel	86	---
ALK	chr2	29416366	G	C	Heterozygous	28.6	1069	SNP	Novel	517	---
ALK	chr2	29416444	C	T	Heterozygous	3.6	14	SNP	Novel	523	---
ALK	chr2	29416558	G	A	Heterozygous	4.8	35	SNP	Novel	629	---
ALK	chr2	29416561	T	C	Heterozygous	5.9	61	SNP	Novel	632	---
ALK	chr2	29416572	T	C	Heterozygous	93.5	9963	SNP	Novel	642	---
ALK	chr2	29416572	TC	CT	Heterozygous	6.5	9963	MNP	Novel	642	---

ALK	chr2	29416578	C	T	Heterozygous	6.3	74	SNP	Novel	650	---
ALK	chr2	29416600	C	T	Heterozygous	8.2	136	SNP	Novel	660	---
ALK	chr2	29436849	C	T	Heterozygous	13.5	193	SNP	Novel	333	---
ALK	chr2	29436873	C	T	Heterozygous	8.7	83	SNP	Novel	335	---
ALK	chr2	29436899	C	T	Heterozygous	7.2	57	SNP	Novel	333	---
ALK	chr2	29436964	G	A	Heterozygous	4.8	23	SNP	Novel	333	---
ALK	chr2	29443593	G	A	Heterozygous	5.3	46	SNP	Novel	621	---
ALK	chr2	29443605	G	A	Heterozygous	9.7	187	SNP	Novel	627	---
ALK	chr2	29443607	G	A	Heterozygous	5.3	45	SNP	Novel	628	---
ALK	chr2	29443617	C	G	Heterozygous	49.6	2833	SNP	Novel	581	---
ALK	chr2	29443671	G	A	Heterozygous	5.3	47	SNP	Novel	639	---
ALK	chr2	29445250	G	A	Heterozygous	5.2	46	SNP	Novel	650	---
ALK	chr2	29445267	G	A	Heterozygous	5.4	49	SNP	Novel	654	---
ALK	chr2	29445428	C	T	Heterozygous	4.9	47	SNP	Novel	885	---
ALK	chr2	29445433	G	A	Heterozygous	3.6	18	SNP	Novel	886	---
ALK	chr2	29445456	G	A	Heterozygous	4	25	SNP	Novel	883	---
ALK	chr2	29445458	G	T	Heterozygous	47.3	4092	SNP	Novel	882	---
ALK	chr2	29497930	G	A	Heterozygous	5.1	36	SNP	Novel	533	---
ALK	chr2	29498014	C	T	Heterozygous	4.3	24	SNP	Novel	530	---
IDH1	chr2	209113140	C	T	Heterozygous	8.6	134	SNP	Novel	583	---
IDH1	chr2	209113156	G	A	Heterozygous	4.7	32	SNP	Novel	578	---
IDH1	chr2	209113168	G	A	Heterozygous	7.4	97	SNP	Novel	580	---
IDH1	chr2	209113169	A	G	Heterozygous	6.4	69	SNP	Novel	580	---
IDH1	chr2	209113196	C	T	Heterozygous	4.7	31	SNP	Novel	578	---
ERBB4	chr2	212488743	G	A	Heterozygous	4.1	36	SNP	Novel	1303	---
ERBB4	chr2	212488753	G	A	Heterozygous	4.6	55	SNP	Novel	1301	---
ERBB4	chr2	212488764	C	T	Heterozygous	5.7	103	SNP	Novel	1299	---
RAF1	chr3	12632361	G	A	Heterozygous	4.6	47	SNP	Novel	1117	---
RAF1	chr3	12632364	C	T	Heterozygous	3.7	22	SNP	Novel	1118	---
CTNNB1	chr3	41266112	T	G	Heterozygous	8.2	32	SNP	Hotspot	194	COSM5675
CTNNB1	chr3	41266118	G	A	Heterozygous	8.2	48	SNP	Novel	194	---
CTNNB1	chr3	41266145	G	A	Heterozygous	7.8	43	SNP	Novel	192	---
PIK3CA	chr3	178916707	G	A	Heterozygous	19.3	184	SNP	Novel	171	---
PIK3CA	chr3	178916876	G	A	Heterozygous	5.4	12	SNP	Hotspot	186	COSM746
PIK3CA	chr3	178921472	G	A	Heterozygous	7.8	79	SNP	Novel	425	---
PIK3CA	chr3	178921501	G	A	Heterozygous	10.9	164	SNP	Novel	433	---
PIK3CA	chr3	178921537	G	A	Heterozygous	10.7	167	SNP	Novel	448	---
PIK3CA	chr3	178921554	G	A	Heterozygous	3.8	14	SNP	Novel	452	---

PIK3CA	chr3	178921564	G	A	Heterozygous	5.8	45	SNP	Novel	448	---
PIK3CA	chr3	178922274	C	A	Heterozygous	49.3	1015	SNP	Novel	211	---
PIK3CA	chr3	178922277	C	T	Heterozygous	6.5	48	SNP	Novel	201	---
PIK3CA	chr3	178922311	C	T	Heterozygous	6.6	35	SNP	Novel	228	---
PIK3CA	chr3	178922324	G	A	Heterozygous	14.3	111	SNP	Hotspot	231	COSM86044
PIK3CA	chr3	178927984	C	T	Heterozygous	6	43	SNP	Novel	382	---
PIK3CA	chr3	178928018	C	T	Heterozygous	9.5	112	SNP	Novel	380	---
PIK3CA	chr3	178928090	G	A	Heterozygous	4	33	SNP	Novel	1136	---
PIK3CA	chr3	178936074	C	G	Heterozygous	4.7	9	SNP	Hotspot	213	COSM759
PIK3CA	chr3	178936079	T	C	Heterozygous	4.2	14	SNP	Novel	213	---
PIK3CA	chr3	178936091	G	A	Heterozygous	14.4	108	SNP	Hotspot	215	COSM763
PIK3CA	chr3	178936118	C	A	Heterozygous	8.5	55	SNP	Novel	213	---
PIK3CA	chr3	178938856	A	G	Heterozygous	3.9	12	SNP	Novel	256	---
PIK3CA	chr3	178938870	G	A	Heterozygous	7	44	SNP	Novel	258	---
PIK3CA	chr3	178938878	A	G	Heterozygous	5.3	25	SNP	Novel	262	---
PIK3CA	chr3	178938880	G	A	Heterozygous	6.9	43	SNP	Novel	262	---
PIK3CA	chr3	178947820	C	T	Heterozygous	3.1	24	SNP	Novel	4000	---
PIK3CA	chr3	178952049	C	T	Heterozygous	5.4	24	SNP	Hotspot	664	COSM17445
FGFR3	chr4	1797232	C	T	Heterozygous	8.7	64	SNP	Novel	242	---
FGFR3	chr4	1797324	A	G	Heterozygous	6.4	37	SNP	Novel	267	---
FGFR3	chr4	1801118	C	T	Heterozygous	4.7	49	SNP	Novel	1016	---
FGFR3	chr4	1801133	C	T	Heterozygous	3.2	12	SNP	Novel	1027	---
FGFR3	chr4	1801174	C	T	Heterozygous	4.1	33	SNP	Novel	1065	---
FGFR3	chr4	1801220	G	A	Heterozygous	3.5	18	SNP	Novel	1056	---
FGFR3	chr4	1801225	G	A	Heterozygous	4.8	52	SNP	Novel	1044	---
FGFR3	chr4	1806173	C	T	Heterozygous	3.2	12	SNP	Novel	1235	---
FGFR3	chr4	1807894	G	A	Homozygous	100	30623	SNP	Novel	1918	---
FGFR3	chr4	1809227	G	A	Heterozygous	6.2	43	SNP	Novel	355	---
FGFR3	chr4	1809243	C	T	Heterozygous	8.5	87	SNP	Novel	363	---
FGFR3	chr4	1809248	G	A	Heterozygous	3.9	14	SNP	Novel	363	---
FGFR3	chr4	1809260	C	T	Heterozygous	6.2	44	SNP	Novel	370	---
FGFR3	chr4	1809271	G	T	Heterozygous	7.9	96	SNP	Novel	341	---
FGFR3	chr4	1809304	C	T	Heterozygous	6.5	57	SNP	Novel	449	---
FGFR3	chr4	1809488	C	T	Heterozygous	9.7	118	SNP	Novel	370	---
FGFR3	chr4	1809555	C	T	Heterozygous	7.6	73	SNP	Novel	381	---
PDGFRA	chr4	55097723	C	T	Heterozygous	5.7	33	SNP	Novel	317	---
PDGFRA	chr4	55097725	C	T	Heterozygous	9.1	89	SNP	Novel	317	---
PDGFRA	chr4	55097728	C	T	Heterozygous	7.3	56	SNP	Novel	317	---

PDGFRA	chr4	55097747	C	A	Heterozygous	4.1	15	SNP	Novel	319	---
PDGFRA	chr4	55097835	G	C	Heterozygous	21.3	385	SNP	Novel	301	---
PDGFRA	chr4	55104305	C	T	Heterozygous	11.3	124	SNP	Novel	291	---
PDGFRA	chr4	55104322	C	T	Heterozygous	10.7	110	SNP	Novel	291	---
PDGFRA	chr4	55104349	C	T	Heterozygous	6.5	41	SNP	Novel	294	---
PDGFRA	chr4	55104350	C	T	Heterozygous	4.1	14	SNP	Novel	295	---
PDGFRA	chr4	55104352	C	T	Heterozygous	4.4	17	SNP	Novel	295	---
PDGFRA	chr4	55121584	G	A	Heterozygous	3.9	14	SNP	Novel	334	---
PDGFRA	chr4	55123719	G	A	Heterozygous	22.4	151	SNP	Novel	107	---
PDGFRA	chr4	55123733	G	A	Heterozygous	22.3	148	SNP	Novel	103	---
PDGFRA	chr4	55123757	G	A	Heterozygous	22.9	154	SNP	Novel	105	---
PDGFRA	chr4	55123779	T	C	Heterozygous	5.7	17	SNP	Novel	105	---
PDGFRA	chr4	55133668	C	T	Heterozygous	11.8	171	SNP	Novel	381	---
PDGFRA	chr4	55133718	G	A	Heterozygous	3.7	12	SNP	Novel	382	---
PDGFRA	chr4	55141055	A	G	Homozygous	100	3422	SNP	Novel	219	---
PDGFRA	chr4	55152044	C	T	Heterozygous	13.9	168	SNP	Novel	274	---
PDGFRA	chr4	55152076	C	T	Heterozygous	16.6	238	SNP	Novel	283	---
PDGFRA	chr4	55152094	C	T	Heterozygous	14.6	142	SNP	Novel	280	---
PDGFRA	chr4	55152138	C	T	Heterozygous	4.9	22	SNP	Novel	285	---
KIT	chr4	55529137	G	A	Heterozygous	12.3	40	SNP	Novel	65	---
KIT	chr4	55566266	G	A	Homozygous	100	1869	SNP	Novel	122	---
KIT	chr4	55573092	C	T	Heterozygous	24.4	134	SNP	Novel	82	---
KIT	chr4	55593436	C	T	Heterozygous	7.3	177	SNP	Novel	1184	---
KIT	chr4	55593510	C	T	Heterozygous	3.9	30	SNP	Novel	1167	---
KIT	chr4	55593579	C	T	Heterozygous	12.7	126	SNP	Novel	236	---
KIT	chr4	55593680	G	A	Heterozygous	5.9	29	SNP	Novel	238	---
KIT	chr4	55594197	C	T	Heterozygous	4.5	24	SNP	Novel	494	---
KIT	chr4	55594212	T	C	Heterozygous	7.3	81	SNP	Novel	496	---
KIT	chr4	55594240	G	A	Heterozygous	3.6	13	SNP	Novel	496	---
KIT	chr4	55594270	G	A	Heterozygous	7.5	86	SNP	Novel	495	---
KIT	chr4	55594274	C	T	Heterozygous	4	18	SNP	Novel	495	---
KIT	chr4	55598885	G	A	Heterozygous	14.5	225	SNP	Novel	338	---
KIT	chr4	55599311	C	T	Heterozygous	11.7	110	SNP	Novel	240	---
ROS1	chr6	117638338	G	A	Heterozygous	7.5	87	SNP	Novel	493	---
ROS1	chr6	117638378	G	A	Heterozygous	5	34	SNP	Novel	498	---
ROS1	chr6	117638425	G	A	Heterozygous	6.9	71	SNP	Novel	495	---
ROS1	chr6	117641039	C	T	Heterozygous	7.3	70	SNP	Novel	412	---
ROS1	chr6	117641063	C	T	Heterozygous	5.4	36	SNP	Novel	428	---

ESR1	chr6	152419997	G	A	Heterozygous	6.9	63	SNP	Novel	421	---
ESR1	chr6	152420020	C	T	Heterozygous	5.3	34	SNP	Novel	415	---
EGFR	chr7	55211050	G	A	Heterozygous	3.3	19	SNP	Novel	1932	---
EGFR	chr7	55219919	C	T	Heterozygous	3.9	20	SNP	Novel	725	---
EGFR	chr7	55219920	C	T	Heterozygous	4.5	34	SNP	Novel	726	---
EGFR	chr7	55219945	G	A	Heterozygous	4.2	28	SNP	Novel	754	---
EGFR	chr7	55219987	G	A	Heterozygous	4.3	29	SNP	Novel	746	---
EGFR	chr7	55221894	G	A	Heterozygous	13.6	129	SNP	Novel	213	---
EGFR	chr7	55227954	C	T	Heterozygous	5.1	25	SNP	Novel	316	---
EGFR	chr7	55227964	G	A	Heterozygous	3.8	14	SNP	Novel	316	---
EGFR	chr7	55227978	G	A	Heterozygous	6.1	40	SNP	Novel	326	---
EGFR	chr7	55242465	GGAATTAA	-	Heterozygous	7	38	DEL	Hotspot	412	COSM6223
EGFR	chr7	55242487	C	T	Heterozygous	8.4	62	SNP	Novel	407	---
EGFR	chr7	55248978	C	T	Heterozygous	4.7	25	SNP	Novel	424	---
EGFR	chr7	55248994	C	T	Heterozygous	4.7	25	SNP	Novel	427	---
EGFR	chr7	55249030	C	T	Heterozygous	4.2	19	SNP	Novel	424	---
EGFR	chr7	55249054	C	T	Heterozygous	6.9	65	SNP	Novel	432	---
EGFR	chr7	55259448	C	T	Heterozygous	5	68	SNP	Novel	1235	---
EGFR	chr7	55259456	G	A	Heterozygous	3.3	16	SNP	Novel	1234	---
EGFR	chr7	55259468	C	T	Heterozygous	3.6	21	SNP	Novel	1232	---
EGFR	chr7	55259477	G	A	Heterozygous	3.2	12	SNP	Novel	1232	---
EGFR	chr7	55259495	C	T	Heterozygous	3.8	28	SNP	Novel	1231	---
EGFR	chr7	55259532	G	A	Heterozygous	3.3	15	SNP	Novel	1221	---
MET	chr7	116313512	G	A	Heterozygous	5.6	32	SNP	Novel	324	---
MET	chr7	116313514	C	T	Heterozygous	6.8	49	SNP	Novel	324	---
MET	chr7	116339352	G	A	Heterozygous	7.5	93	SNP	Novel	531	---
MET	chr7	116339390	C	T	Heterozygous	7.8	102	SNP	Novel	540	---
MET	chr7	116339408	G	A	Heterozygous	4.5	26	SNP	Novel	538	---
MET	chr7	116340270	G	A	Heterozygous	3.4	24	SNP	Novel	2158	---
MET	chr7	116403136	C	T	Heterozygous	6.2	46	SNP	Novel	388	---
MET	chr7	116403161	C	T	Heterozygous	7.6	74	SNP	Novel	394	---
MET	chr7	116403229	C	T	Heterozygous	6.3	47	SNP	Novel	381	---
MET	chr7	116411990	C	T	Heterozygous	15.6	106	SNP	Hotspot	180	COSM707
MET	chr7	116415105	C	A	Heterozygous	11.9	104	SNP	Novel	218	---
MET	chr7	116417432	C	T	Heterozygous	4.7	19	SNP	Novel	256	---
MET	chr7	116417480	C	T	Heterozygous	6.5	39	SNP	Novel	279	---
MET	chr7	116417506	C	T	Heterozygous	4.4	17	SNP	Novel	271	---
MET	chr7	116417519	G	A	Heterozygous	6.5	40	SNP	Novel	276	---

MET	chr7	116434458	G	A	Heterozygous	7.7	75	SNP	Novel	391	---
MET	chr7	116434461	C	A	Heterozygous	7.1	64	SNP	Novel	392	---
MET	chr7	116434476	G	A	Heterozygous	8	83	SNP	Novel	401	---
MET	chr7	116434513	T	C	Heterozygous	3.4	11	SNP	Novel	407	---
SMO	chr7	128845589	C	T	Heterozygous	5	42	SNP	Novel	654	---
SMO	chr7	128849224	C	T	Heterozygous	15.7	290	SNP	Novel	389	---
SMO	chr7	128849234	G	A	Heterozygous	4.1	17	SNP	Novel	362	---
SMO	chr7	128850356	C	T	Heterozygous	3	12	SNP	Novel	1778	---
SMO	chr7	128850357	C	T	Heterozygous	3.3	18	SNP	Novel	1778	---
BRAF	chr7	140453104	C	T	Heterozygous	11.9	94	SNP	Novel	193	---
BRAF	chr7	140476648	C	T	Heterozygous	9.1	135	SNP	Novel	505	---
BRAF	chr7	140476686	C	T	Heterozygous	6.3	60	SNP	Novel	509	---
BRAF	chr7	140481388	C	T	Heterozygous	3.4	17	SNP	Novel	1170	---
BRAF	chr7	140481451	G	A	Heterozygous	3.1	11	SNP	Novel	1132	---
BRAF	chr7	140494264	G	A	Heterozygous	4.4	26	SNP	Novel	567	---
BRAF	chr7	140494283	C	T	Heterozygous	3.6	13	SNP	Novel	562	---
BRAF	chr7	140501253	A	G	Heterozygous	3	15	SNP	Novel	3717	---
JAK2	chr9	5073775	T	C	Heterozygous	8.9	50	SNP	Novel	168	---
GNAQ	chr9	80409466	C	A	Heterozygous	7.6	42	SNP	Novel	198	---
GNAQ	chr9	80409492	C	T	Heterozygous	13	109	SNP	Novel	193	---
RET	chr10	43609105	G	A	Heterozygous	4.3	43	SNP	Novel	1222	---
RET	chr10	43609157	C	T	Heterozygous	7.7	211	SNP	Novel	1232	---
RET	chr10	43609913	C	T	Heterozygous	7.9	124	SNP	Novel	645	---
RET	chr10	43609970	C	T	Heterozygous	5.8	61	SNP	Novel	674	---
RET	chr10	43613843	G	T	Heterozygous	56.5	12247	SNP	Novel	2002	---
RET	chr10	43615613	G	A	Heterozygous	16	135	SNP	Novel	219	---
RET	chr10	43615637	G	A	Heterozygous	15.9	201	SNP	Novel	252	---
RET	chr10	43617345	C	T	Heterozygous	4.9	25	SNP	Novel	370	---
FGFR2	chr10	123247597	C	T	Heterozygous	5.6	85	SNP	Novel	1084	---
FGFR2	chr10	123257972	G	A	Heterozygous	3.9	20	SNP	Novel	691	---
FGFR2	chr10	123274760	G	A	Heterozygous	4.5	12	SNP	Novel	157	---
FGFR2	chr10	123274802	G	A	Heterozygous	18.5	162	SNP	Novel	157	---
FGFR2	chr10	123276883	C	T	Heterozygous	4.5	19	SNP	Novel	336	---
FGFR2	chr10	123276895	G	A	Heterozygous	6.5	47	SNP	Novel	337	---
FGFR2	chr10	123279698	G	A	Heterozygous	4.2	34	SNP	Novel	1050	---
FGFR2	chr10	123279705	G	A	Heterozygous	5.8	87	SNP	Novel	1036	---
FGFR2	chr10	123284094	C	T	Heterozygous	6.8	47	SNP	Novel	311	---
FGFR2	chr10	123284112	C	T	Heterozygous	4.1	15	SNP	Novel	314	---

FGFR2	chr10	123284113	C	T	Heterozygous	5.4	29	SNP	Novel	314	---
FGFR2	chr10	123284123	C	T	Heterozygous	5.4	29	SNP	Novel	313	---
FGFR2	chr10	123284156	G	A	Heterozygous	6.5	41	SNP	Novel	308	---
FGFR2	chr10	123312168	G	A	Heterozygous	19.9	182	SNP	Novel	156	---
FGFR2	chr10	123312235	G	A	Heterozygous	8.6	43	SNP	Novel	152	---
FGFR2	chr10	123350028	G	A	Heterozygous	4.5	11	SNP	Novel	88	---
HRAS	chr11	533830	C	T	Heterozygous	6.8	73	SNP	Novel	526	---
HRAS	chr11	533833	C	T	Heterozygous	5.2	37	SNP	Novel	523	---
HRAS	chr11	533893	T	G	Heterozygous	4.6	27	SNP	Novel	522	---
HRAS	chr11	533902	G	A	Heterozygous	5.7	49	SNP	Novel	522	---
HRAS	chr11	533903	G	A	Heterozygous	3.6	14	SNP	Novel	522	---
HRAS	chr11	534330	C	T	Heterozygous	3.1	11	SNP	Novel	1189	---
HRAS	chr11	534345	C	T	Heterozygous	7.9	211	SNP	Novel	1170	---
KRAS	chr12	25364838	C	T	Heterozygous	14	76	SNP	Novel	114	---
KRAS	chr12	25378609	G	A	Heterozygous	8.7	70	SNP	Novel	263	---
KRAS	chr12	25378622	C	T	Heterozygous	9.9	88	SNP	Novel	262	---
KRAS	chr12	25378643	C	T	Heterozygous	4.6	18	SNP	Novel	262	---
KRAS	chr12	25378655	C	T	Heterozygous	8.8	70	SNP	Novel	261	---
KRAS	chr12	25380271	C	T	Heterozygous	3.7	18	SNP	Novel	760	---
KRAS	chr12	25380299	C	T	Heterozygous	7.8	139	SNP	Novel	774	---
KRAS	chr12	25386054	C	G	Heterozygous	5.1	14	SNP	Novel	99	---
KRAS	chr12	25386063	C	A	Heterozygous	95	1361	SNP	Novel	101	---
KRAS	chr12	25386079	C	T	Heterozygous	6.7	22	SNP	Novel	105	---
KRAS	chr12	25386932	A	G	Heterozygous	9.1	62	SNP	Novel	209	---
KRAS	chr12	25386997	C	T	Heterozygous	6.2	30	SNP	Novel	211	---
KRAS	chr12	25387192	G	A	Heterozygous	13.4	134	SNP	Novel	232	---
KRAS	chr12	25387214	G	A	Heterozygous	5.6	25	SNP	Novel	233	---
KRAS	chr12	25389166	C	T	Heterozygous	4.5	21	SNP	Novel	353	---
KRAS	chr12	25389175	G	A	Heterozygous	6	40	SNP	Novel	350	---
KRAS	chr12	25389219	C	T	Heterozygous	5.7	35	SNP	Novel	352	---
KRAS	chr12	25391146	G	A	Heterozygous	7.8	30	SNP	Novel	115	---
KRAS	chr12	25391235	G	A	Heterozygous	15.4	90	SNP	Novel	117	---
KRAS	chr12	25391239	G	C	Heterozygous	72.6	1019	SNP	Novel	117	---
KRAS	chr12	25398246	G	A	Heterozygous	8.3	68	SNP	Novel	290	---
KRAS	chr12	25400206	G	T	Heterozygous	36.6	613	SNP	Novel	205	---
KRAS	chr12	25400242	T	C	Heterozygous	8.6	51	SNP	Novel	198	---
ERBB3	chr12	56477611	C	T	Heterozygous	8.7	97	SNP	Novel	389	---
ERBB3	chr12	56477658	G	A	Heterozygous	10.1	128	SNP	Novel	387	---

ERBB3	chr12	56477667	C	T	Heterozygous	7.5	70	SNP	Novel	388	---
ERBB3	chr12	56477672	C	T	Heterozygous	7.5	71	SNP	Novel	385	---
ERBB3	chr12	56477694	A	T	Heterozygous	78.4	3904	SNP	Novel	380	---
ERBB3	chr12	56481655	G	A	Heterozygous	15.2	247	SNP	Novel	341	---
ERBB3	chr12	56481689	G	A	Heterozygous	11.3	145	SNP	Novel	345	---
ERBB3	chr12	56482321	C	T	Heterozygous	4.3	37	SNP	Novel	1100	---
ERBB3	chr12	56482338	G	A	Heterozygous	3.9	28	SNP	Novel	1096	---
ERBB3	chr12	56482369	C	T	Heterozygous	4.8	50	SNP	Novel	1002	---
ERBB3	chr12	56482388	A	G	Heterozygous	3.2	12	SNP	Novel	992	---
ERBB3	chr12	56482620	C	T	Heterozygous	4.4	16	SNP	Novel	251	---
CDK4	chr12	58142075	G	A	Heterozygous	9.1	56	SNP	Novel	187	---
CDK4	chr12	58142157	G	A	Heterozygous	9.6	66	SNP	Novel	198	---
CDK4	chr12	58142325	C	T	Heterozygous	8.1	103	SNP	Novel	491	---
CDK4	chr12	58142332	A	G	Heterozygous	8.2	104	SNP	Novel	488	---
CDK4	chr12	58142343	A	G	Heterozygous	5.6	43	SNP	Novel	486	---
CDK4	chr12	58142357	C	T	Heterozygous	8.4	106	SNP	Novel	479	---
CDK4	chr12	58142358	G	A	Heterozygous	8.6	104	SNP	Novel	479	---
CDK4	chr12	58142889	C	T	Heterozygous	3.5	21	SNP	Novel	1461	---
CDK4	chr12	58142920	C	T	Heterozygous	4.6	60	SNP	Novel	1478	---
CDK4	chr12	58142973	G	A	Heterozygous	3.6	24	SNP	Novel	1472	---
CDK4	chr12	58143249	C	T	Heterozygous	4.7	34	SNP	Novel	661	---
CDK4	chr12	58143254	C	T	Heterozygous	3.5	13	SNP	Novel	663	---
CDK4	chr12	58143310	G	A	Heterozygous	3.3	11	SNP	Novel	665	---
CDK4	chr12	58143316	G	A	Heterozygous	9.7	194	SNP	Novel	662	---
CDK4	chr12	58143328	G	A	Heterozygous	3.4	12	SNP	Novel	654	---
CDK4	chr12	58144483	G	A	Heterozygous	8.7	74	SNP	Novel	287	---
CDK4	chr12	58144575	G	A	Heterozygous	5.3	45	SNP	Novel	606	---
CDK4	chr12	58144643	G	A	Heterozygous	3.2	10	SNP	Novel	622	---
CDK4	chr12	58144650	G	A	Heterozygous	4.7	32	SNP	Novel	620	---
CDK4	chr12	58144665	C	T	Heterozygous	77.1	6159	SNP	Novel	617	---
CDK4	chr12	58144940	C	T	Heterozygous	5.5	80	SNP	Novel	1057	---
CDK4	chr12	58145377	C	T	Heterozygous	18.3	243	SNP	Novel	240	---
CDK4	chr12	58145390	C	T	Heterozygous	4.1	13	SNP	Novel	243	---
CDK4	chr12	58145428	C	T	Heterozygous	15	178	SNP	Novel	246	---
CDK4	chr12	58145435	C	T	Heterozygous	13	137	SNP	Novel	246	---
CDK4	chr12	58145449	C	T	Heterozygous	3.7	11	SNP	Novel	242	---
CDK4	chr12	58145713	G	A	Heterozygous	8.7	97	SNP	Novel	390	---
CDK4	chr12	58145787	G	A	Heterozygous	6.4	53	SNP	Novel	425	---

CDK4	chr12	58145792	G	A	Heterozygous	4.5	22	SNP	Novel	426	---
CDK4	chr12	58145960	C	T	Heterozygous	3.1	18	SNP	Novel	2825	---
AKT1	chr14	105246455	C	T	Heterozygous	19.8	125	SNP	Novel	101	---
AKT1	chr14	105246478	C	T	Heterozygous	26.4	192	SNP	Novel	106	---
MAP2K1	chr15	66727453	A	G	Heterozygous	3.6	14	SNP	Novel	591	---
MAP2K1	chr15	66727471	C	T	Heterozygous	4	21	SNP	Novel	594	---
MAP2K1	chr15	66727476	G	A	Heterozygous	3.9	18	SNP	Novel	597	---
MAP2K1	chr15	66727480	G	A	Heterozygous	3.8	18	SNP	Novel	598	---
MAP2K1	chr15	66727503	G	A	Heterozygous	4.3	25	SNP	Novel	602	---
MAP2K1	chr15	66727510	G	A	Heterozygous	4.5	29	SNP	Novel	599	---
MAP2K1	chr15	66727523	G	A	Heterozygous	5.5	50	SNP	Novel	595	---
MAP2K1	chr15	66729160	C	T	Heterozygous	5	38	SNP	Novel	604	---
MAP2K1	chr15	66774085	C	T	Heterozygous	10.1	142	SNP	Novel	467	---
MAP2K1	chr15	66774170	A	G	Heterozygous	4.2	21	SNP	Novel	472	---
ERBB2	chr17	37868126	C	T	Heterozygous	11.3	158	SNP	Novel	379	---
ERBB2	chr17	37868133	G	A	Heterozygous	4.5	21	SNP	Novel	381	---
ERBB2	chr17	37868158	C	T	Heterozygous	8.3	87	SNP	Novel	385	---
ERBB2	chr17	37868168	C	T	Heterozygous	4.9	27	SNP	Novel	384	---
ERBB2	chr17	37868188	C	T	Heterozygous	10.6	142	SNP	Novel	386	---
ERBB2	chr17	37868200	C	T	Heterozygous	10.3	134	SNP	Novel	389	---
ERBB2	chr17	37868203	G	A	Heterozygous	6.7	55	SNP	Novel	388	---
ERBB2	chr17	37868212	C	T	Heterozygous	6.4	50	SNP	Novel	391	---
ERBB2	chr17	37868221	C	T	Heterozygous	6.6	53	SNP	Novel	391	---
ERBB2	chr17	37868225	C	T	Heterozygous	5.3	33	SNP	Novel	393	---
ERBB2	chr17	37868237	C	T	Heterozygous	10.8	144	SNP	Novel	378	---
ERBB2	chr17	37868245	G	A	Heterozygous	7.1	62	SNP	Novel	378	---
ERBB2	chr17	37872368	C	T	Heterozygous	4.7	30	SNP	Novel	528	---
ERBB2	chr17	37872392	C	T	Heterozygous	5.3	40	SNP	Novel	530	---
ERBB2	chr17	37872404	C	T	Heterozygous	3.3	12	SNP	Novel	520	---
ERBB2	chr17	37872426	C	T	Heterozygous	5.7	44	SNP	Novel	509	---
ERBB2	chr17	37872454	C	T	Heterozygous	4.9	27	SNP	Novel	426	---
ERBB2	chr17	37872463	C	T	Heterozygous	5.4	39	SNP	Novel	482	---
ERBB2	chr17	37872465	C	T	Heterozygous	3.9	17	SNP	Novel	483	---
ERBB2	chr17	37879884	G	A	Heterozygous	2.9	13	SNP	Novel	3194	---
ERBB2	chr17	37880238	C	T	Heterozygous	4.3	25	SNP	Novel	606	---
ERBB2	chr17	37880244	C	T	Heterozygous	4.9	38	SNP	Novel	608	---
ERBB2	chr17	37880248	C	T	Heterozygous	5.2	42	SNP	Novel	601	---
ERBB2	chr17	37880283	C	T	Heterozygous	11.8	283	SNP	Novel	642	---

ERBB2	chr17	37880291	G	A	Heterozygous	4.4	27	SNP	Novel	643	---
ERBB2	chr17	37880321	C	G	Heterozygous	6.8	92	SNP	Novel	673	---
ERBB2	chr17	37881379	C	T	Heterozygous	8.1	108	SNP	Novel	516	---
ERBB2	chr17	37881439	C	T	Heterozygous	9.3	148	SNP	Novel	535	---
ERBB2	chr17	37881582	G	A	Heterozygous	8.5	92	SNP	Novel	387	---
ERBB2	chr17	37881583	C	T	Heterozygous	10.4	136	SNP	Novel	383	---
ERBB2	chr17	37881636	G	A	Heterozygous	5.3	29	SNP	Novel	318	---
ERBB2	chr17	37882909	C	T	Heterozygous	3.2	14	SNP	Novel	1507	---
ERBB2	chr17	37882936	C	T	Heterozygous	4.4	54	SNP	Novel	1491	---
ERBB2	chr17	37883131	G	A	Heterozygous	5.5	36	SNP	Novel	403	---
ERBB2	chr17	37883200	C	T	Heterozygous	8.7	113	SNP	Novel	458	---
GNA11	chr19	3115003	C	T	Heterozygous	5.8	35	SNP	Novel	328	---
GNA11	chr19	3115015	G	A	Heterozygous	10.6	122	SNP	Novel	330	---
GNA11	chr19	3115019	C	T	Heterozygous	9.7	103	SNP	Novel	331	---
GNA11	chr19	3118887	C	T	Heterozygous	3.5	26	SNP	Novel	2172	---
GNA11	chr19	3118936	G	A	Heterozygous	2.8	12	SNP	Novel	2149	---
MAP2K2	chr19	4117564	C	T	Heterozygous	5.4	38	SNP	Novel	465	---
JAK3	chr19	17945920	C	T	Heterozygous	21.4	218	SNP	Novel	168	---
JAK3	chr19	17945935	C	A	Heterozygous	10.9	72	SNP	Novel	175	---
JAK3	chr19	17945986	C	T	Heterozygous	20.5	209	SNP	Novel	176	---
JAK3	chr19	17945993	G	A	Heterozygous	3.8	10	SNP	Novel	182	---
JAK3	chr19	17948744	C	T	Heterozygous	6.3	58	SNP	Novel	492	---
JAK3	chr19	17948771	G	T	Heterozygous	4.4	24	SNP	Novel	497	---
JAK3	chr19	17948823	C	T	Heterozygous	7.9	95	SNP	Novel	479	---
JAK3	chr19	17948861	C	T	Heterozygous	7.1	74	SNP	Novel	465	---
AR	chrX	66799271	G	A	Heterozygous	3.9	20	SNP	Novel	661	---
AR	chrX	66866159	G	A	Heterozygous	9.4	69	SNP	Novel	224	---
AR	chrX	66874585	C	T	Heterozygous	26.6	146	SNP	Novel	79	---
AR	chrX	66915218	C	T	Heterozygous	10.4	101	SNP	Novel	278	---
AR	chrX	66938947	C	T	Heterozygous	5	28	SNP	Novel	377	---
AR	chrX	66938955	C	T	Heterozygous	5	28	SNP	Novel	379	---
AR	chrX	66938972	C	T	Heterozygous	10.3	130	SNP	Novel	379	---
AR	chrX	66938980	G	A	Heterozygous	9.5	112	SNP	Novel	379	---
AR	chrX	66941780	G	A	Heterozygous	30.1	271	SNP	Novel	123	---
AR	chrX	66945196	C	T	Heterozygous	13.4	122	SNP	Novel	201	---
AR	chrX	66945222	C	G	Heterozygous	7.9	46	SNP	Novel	203	---