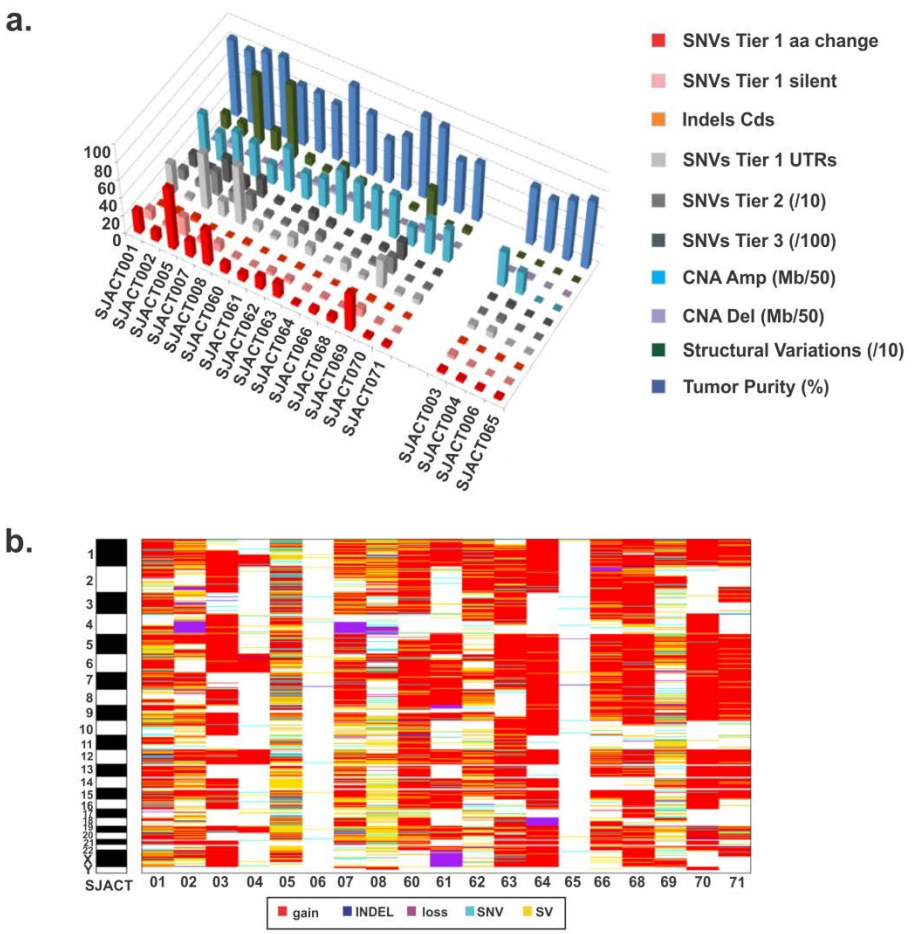
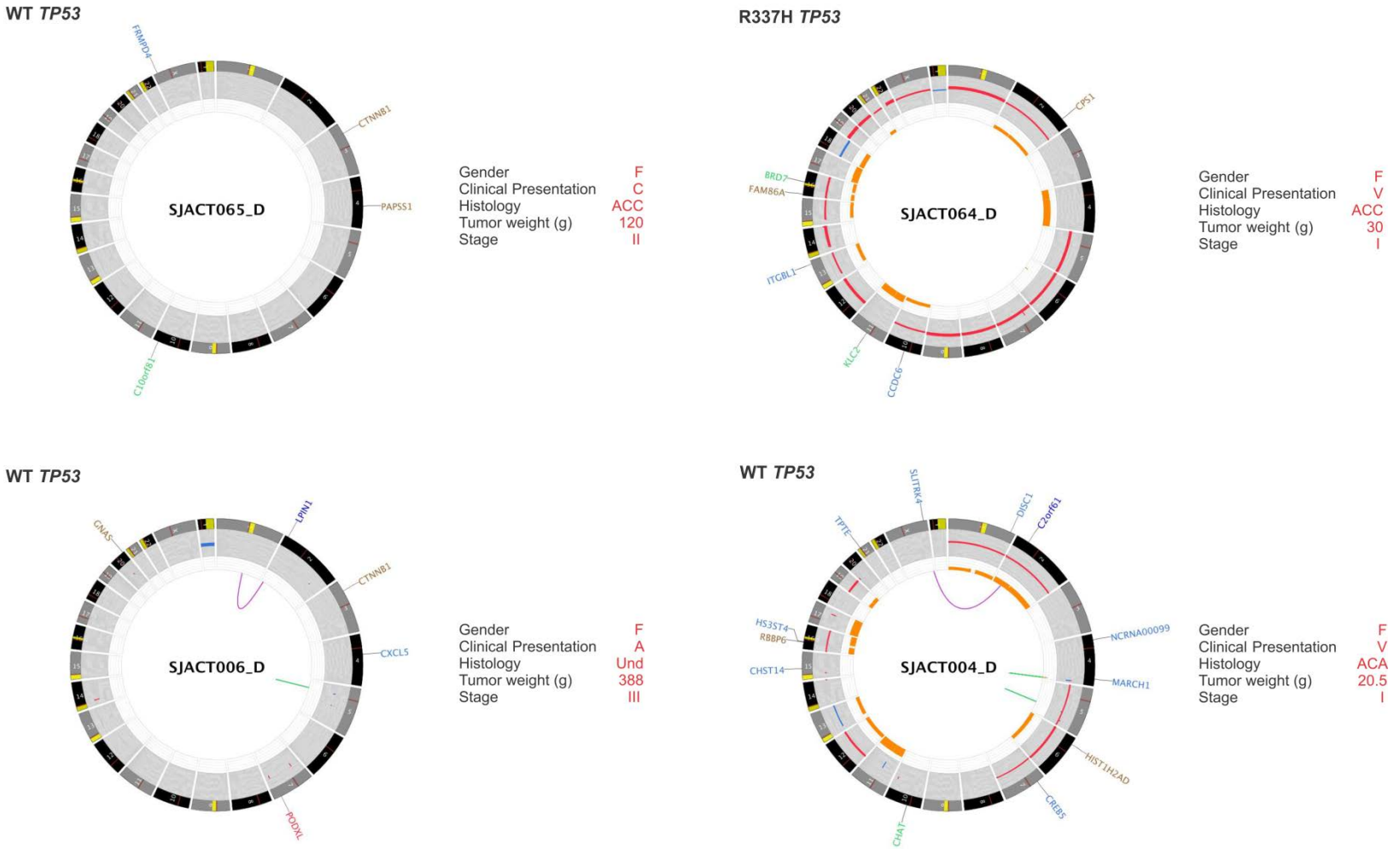
Supplementary Figure 1



Supplementary Figure 1 Mutation spectrum of pediatric ACT. (**a**) Number of sequence variations (SNVs and indels), structural variations (SVs), and copy number alterations (CNAs) derived from whole-genome sequencing. The initial 15 cases had germline *TP53* mutations; the final four had WT *TP53*. (**b**) Heat map of chromosomal gains, losses, indels, SNVs, and SVs across the whole-genome sequence of pediatric ACT.

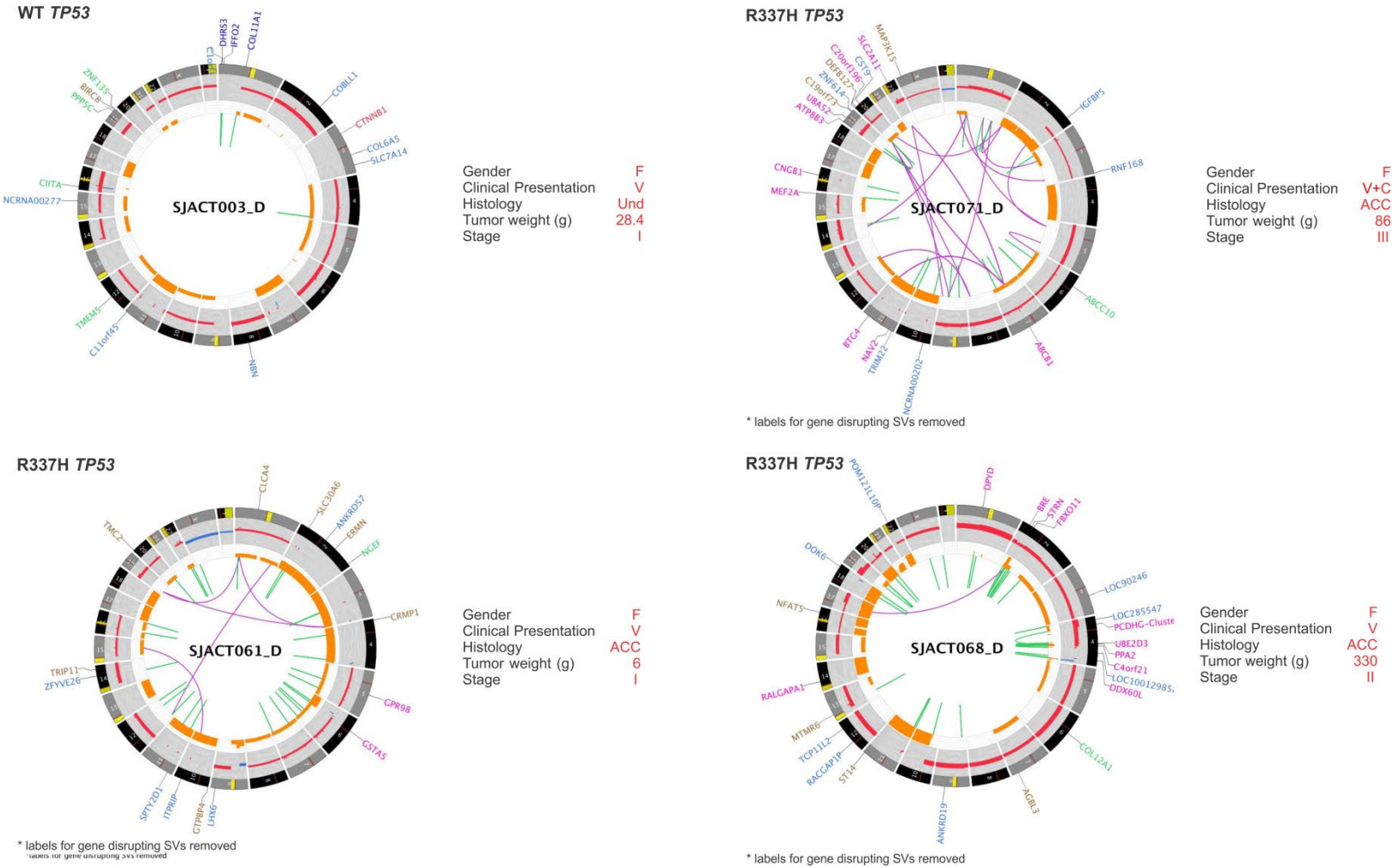
Supplementary Figure 2



F=Female; M=Male; V=Virilization; C=Cushing; A=Aldosterone producing; NF=non functioning tumor
ACA=adrenocortical adenoma; ACC=adrenocortical carcinoma; Und=undetermined malignancy

Supplementary Figure 2 Circos plots of genetic alterations identified in pediatric ACTs by WGS. Depicted are CNAs, intra- and inter-chromosomal translocations, and sequence alterations identified by WGS analysis. LOH, orange; amplification, red; deletion, blue. Sequence mutations in RefSeq genes: silent single-nucleotide variations (SNVs), green; non-silent SNVs, brown; indels, red. Genes at structural variant breakpoints included genes involved in in-frame fusions (pink) and others (blue). Cases SJACT062, SJACT063, SJACT069 and SJACT070 are represented in Figure 3.

Supplementary Figure 2



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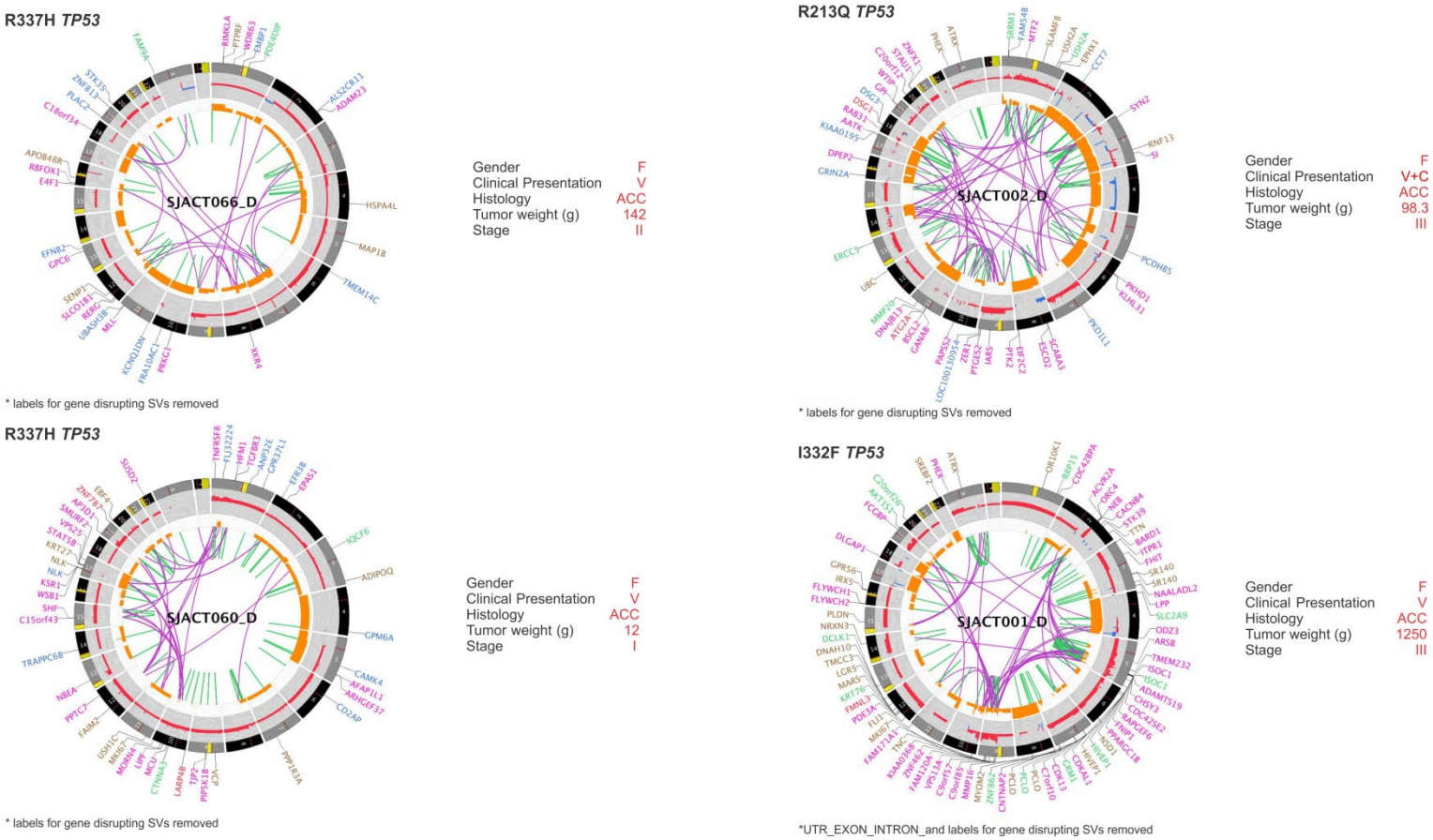
Supplementary Figure 2



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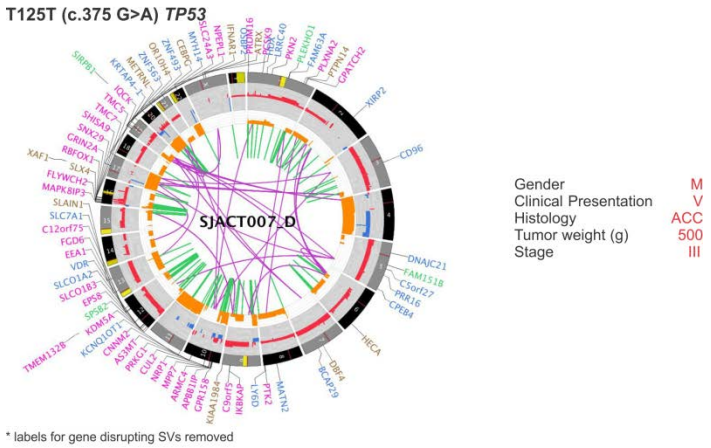
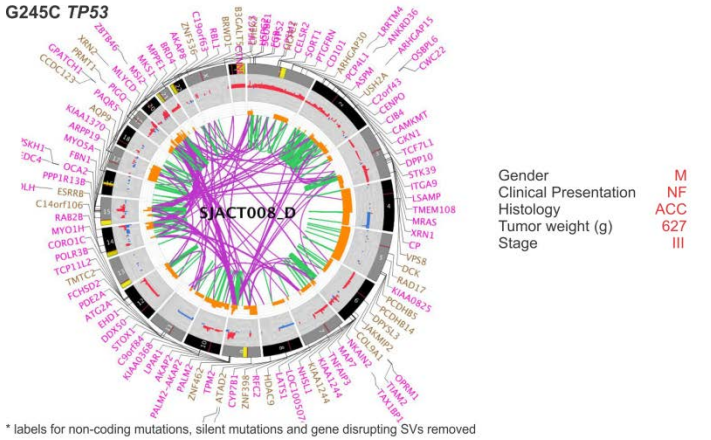
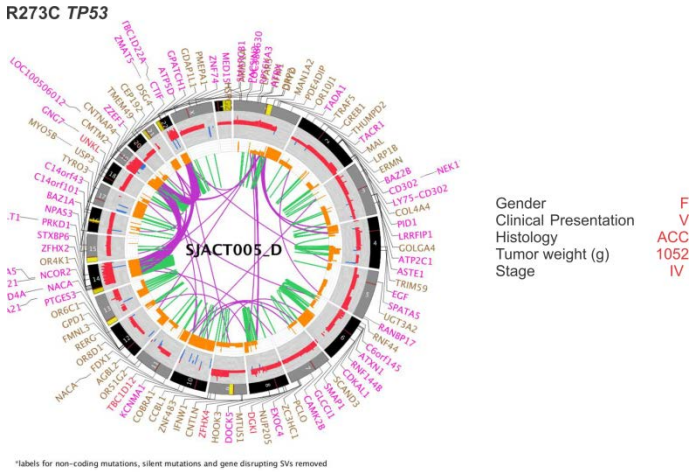
Supplementary Figure 2







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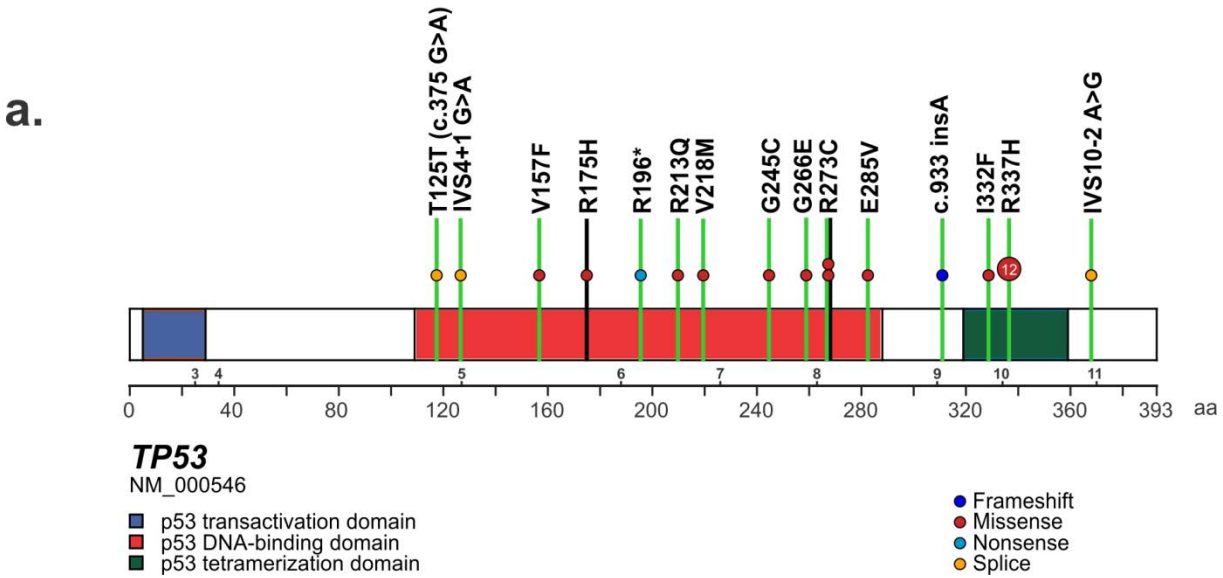
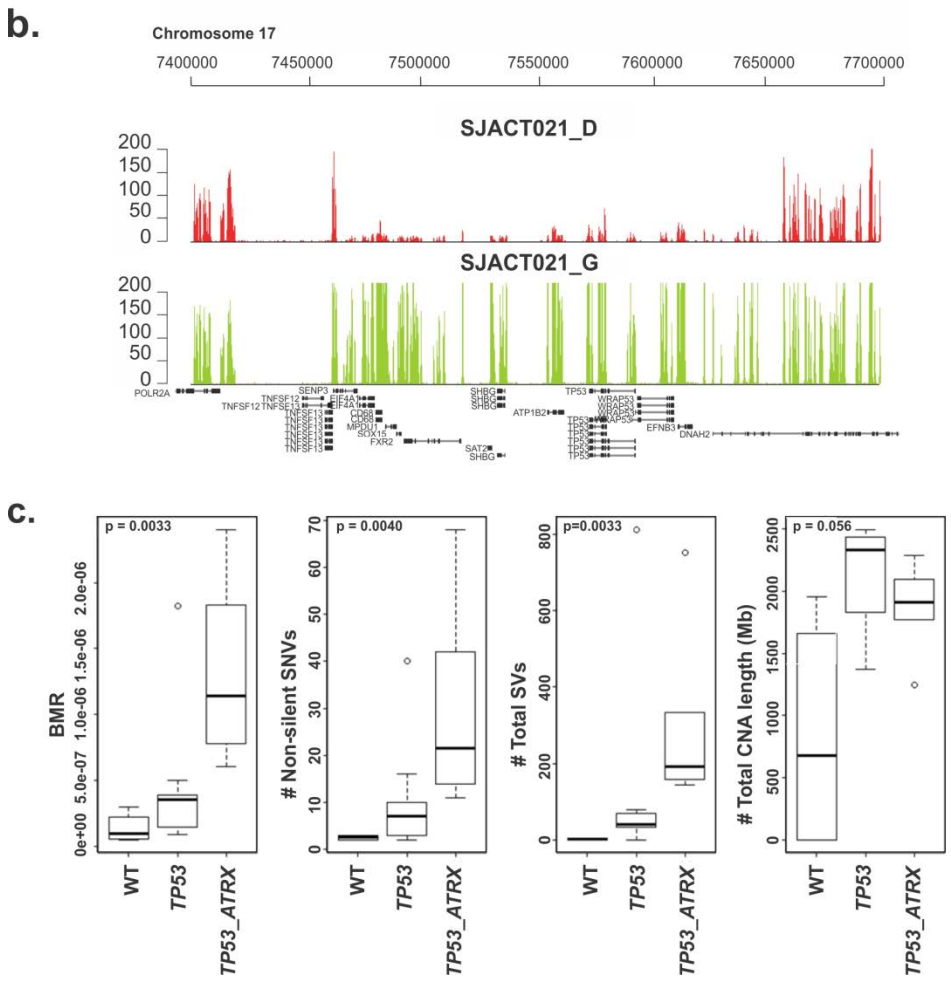
Supplementary Figure 3



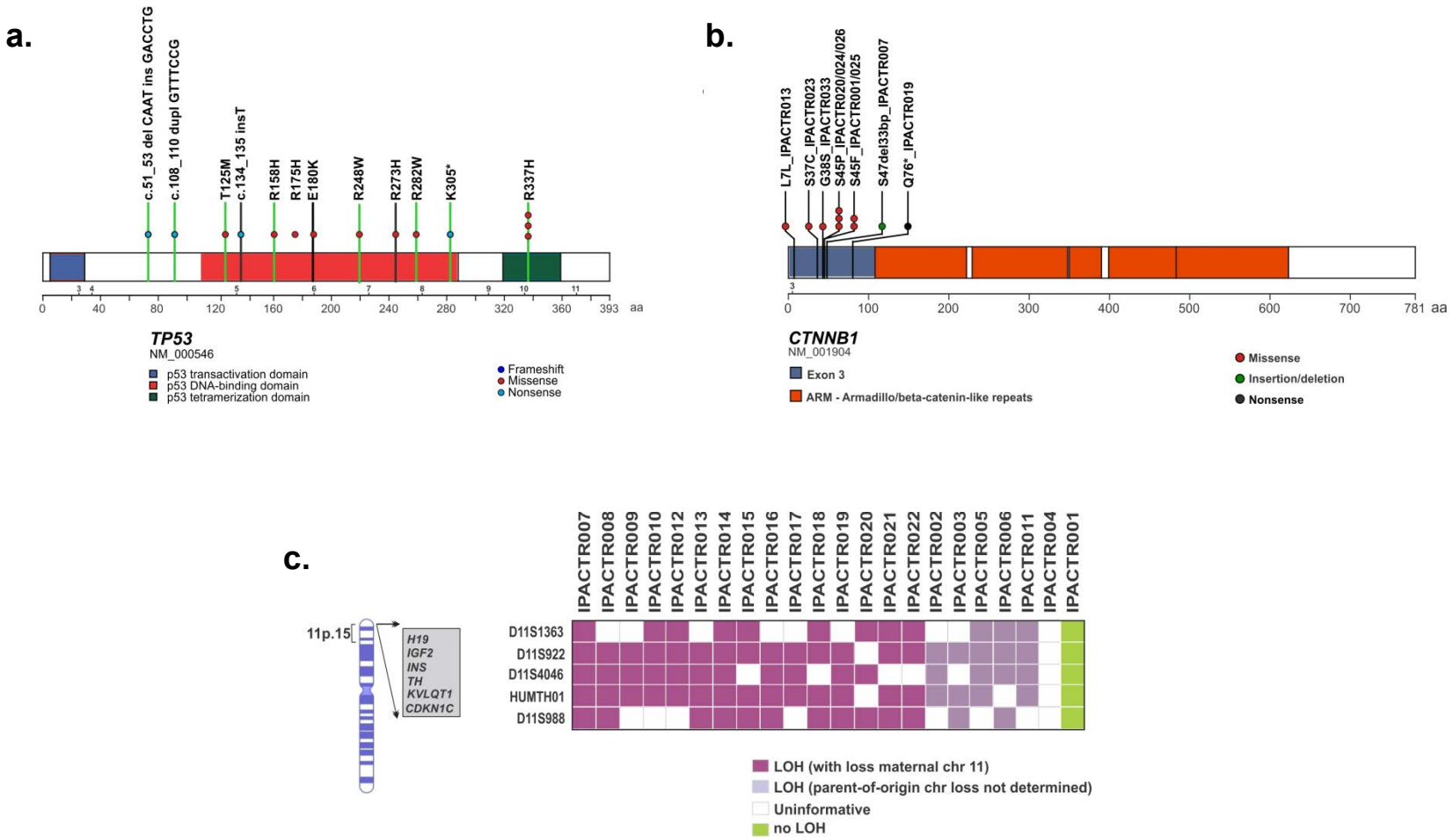
Supplementary Figure 3 *TP53* mutations in pediatric ACTs. (a) Diagram of germline (green lines) and somatic (black lines) *TP53* mutations detected by WGS and WES.

Supplementary Figure 3



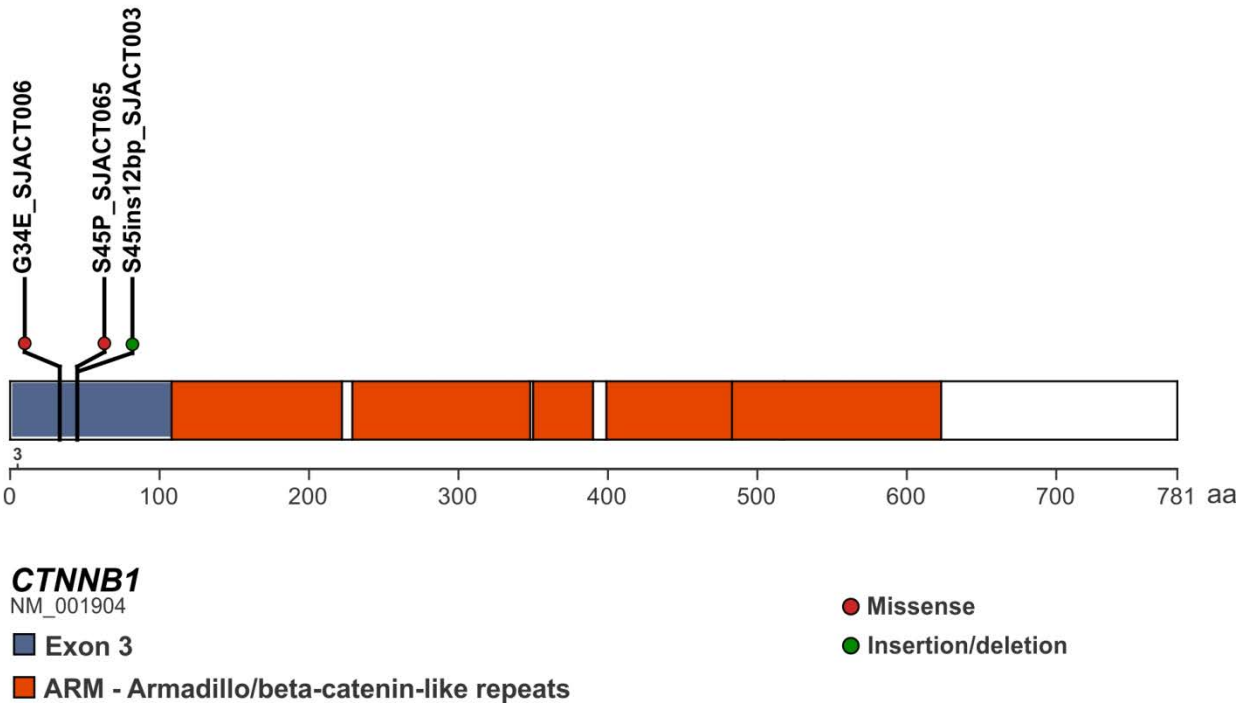
Supplementary Figure 3 *TP53* mutations in pediatric ACTs (b) Whole-exome sequencing read coverage of the 17p13 in sample SJACT021 [tumor (D) and germline (G)], with an approximately 200-kb homozygous deletion encompassing *TP53* in the tumor sample (c) Boxplots of BMR, non-silent SNVs, total SVs, and total CNA length in pediatric ACTs with wild-type (WT) germline *TP53*, mutated germline *TP53* and mutated germline *TP53* plus somatic *ATRX*.

Supplementary Figure 4



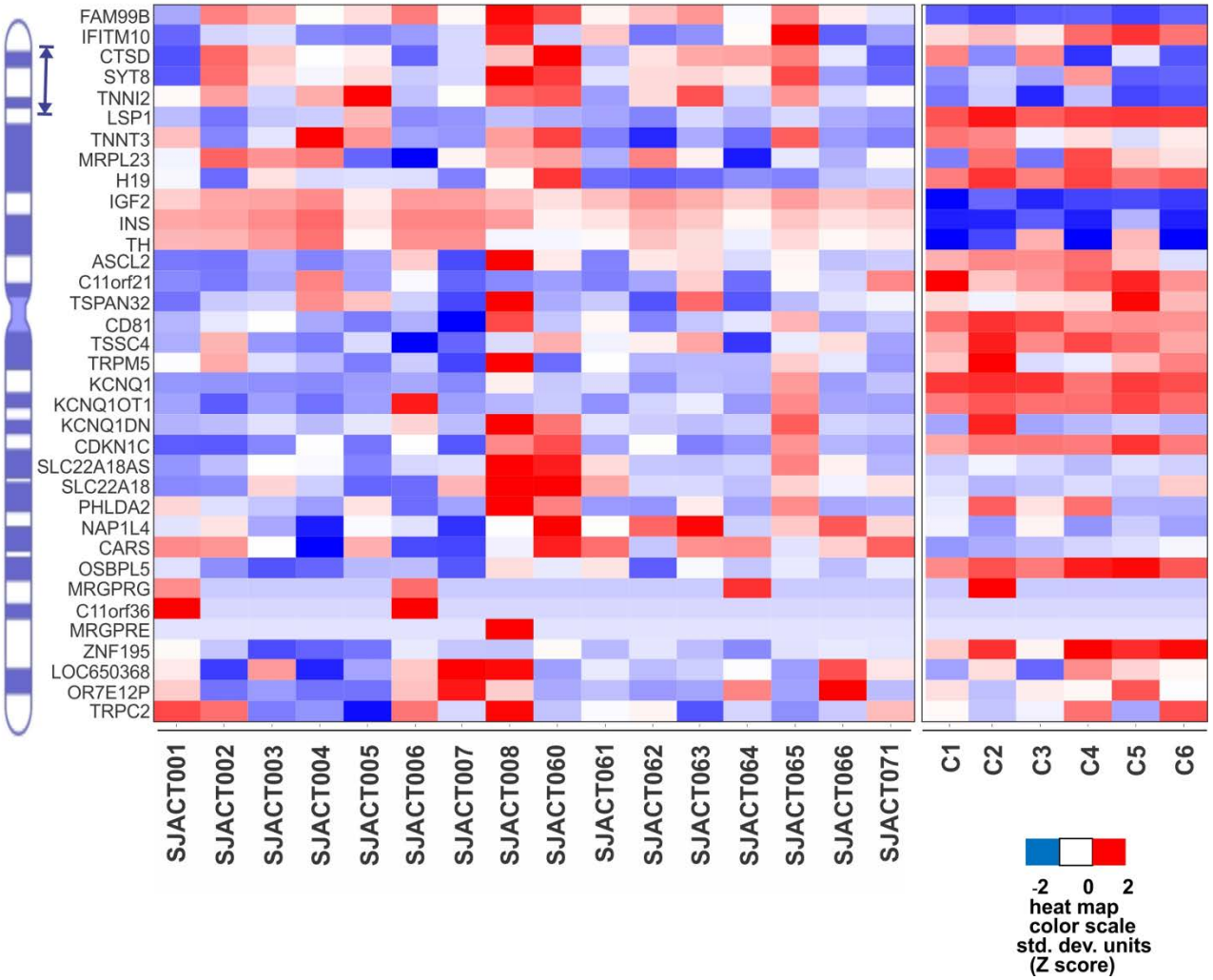
Supplementary Figure 4 *TP53*, *CTNNB1* and chromosome 11p15 status in validation cohort. (a) Diagram of germline (green lines) and somatic (black lines) *TP53* mutations detected by Sanger sequencing. (b) Distribution of mutations in *CTNNB1* in pediatric ACTs from IPACTR cohort. (c) Schematic representation of microsatellite analysis of chromosome 11p15 in 22 pediatric ACTs from the IPACTR repository. The first 15 cases had available parental DNA. In one case it was not possible to assess LOH (homozygous germline) and in one case LOH was not evident.

Supplementary Figure 5



Supplementary Figure 5 Distribution of mutations in *CTNNB1* in pediatric ACTs. All mutations (missense and frame-shift) located at exon 3 of *CTNNB1.*

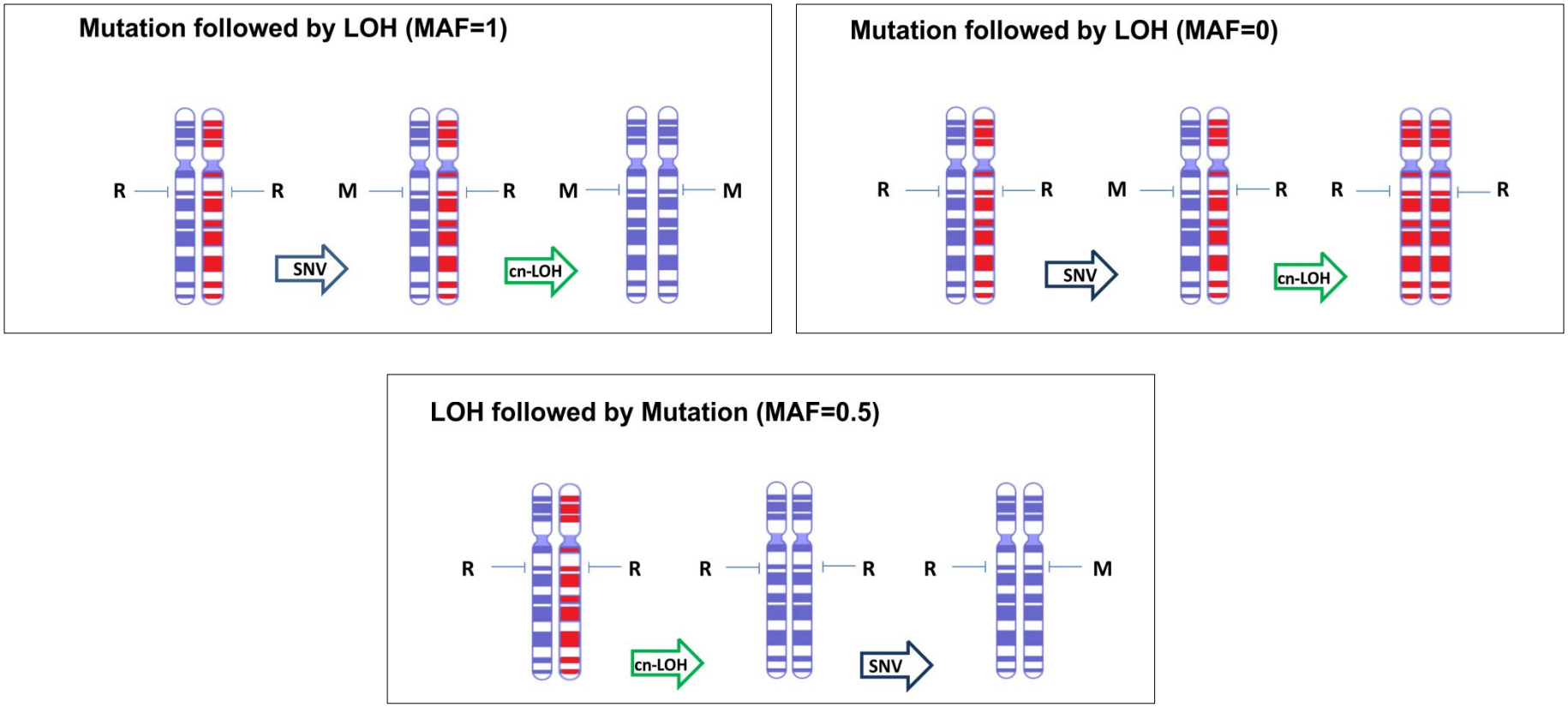
Supplementary Figure 6



Supplementary Figure 6 Heat map of transcriptome sequencing of selected genes within the imprinted cluster region 11p15 (chr11:1704500-3658789. Six normal adrenocortical tissue samples were used as controls in the gene expression studies.

Supplementary Figure 7

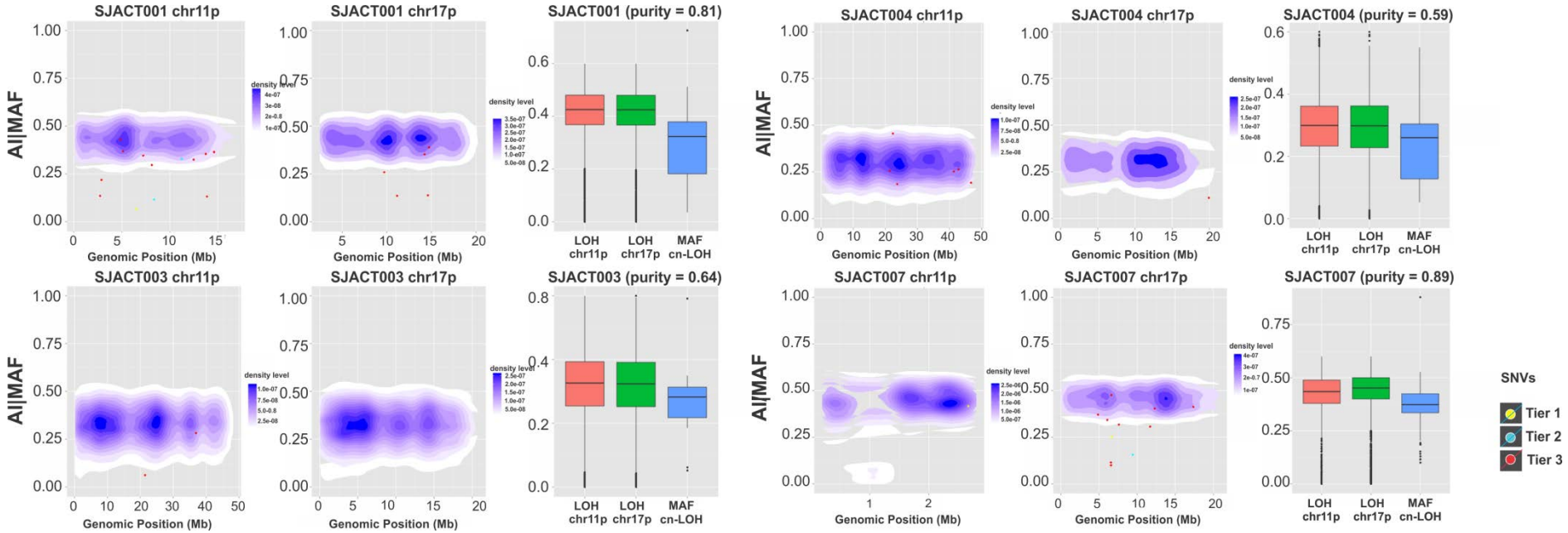
a.



Supplementary Figure 7 Timing of cn-LOH in pediatric ACTs in the WGS cohort. (**a**). Hypothetical scenarios of the chronology of cn-LOH and SNV accumulation. The mutant allele fraction (MAF) of SNVs in cn-LOH region was used to determine the temporal order of cn-LOH and SNV accumulation. Upper and middle panels: A somatic SNV occurred prior to cn-LOH. If cn-LOH selected the chromosome harboring the mutant allele, the MAF is 1 (upper panel). If cn-LOH selected the chromosome with the reference allele, the MAF is 0 (middle panel). Lower panel: When an SNV was accumulated after cn-LOH, the MAF is 0.5.

Supplementary Figure 7

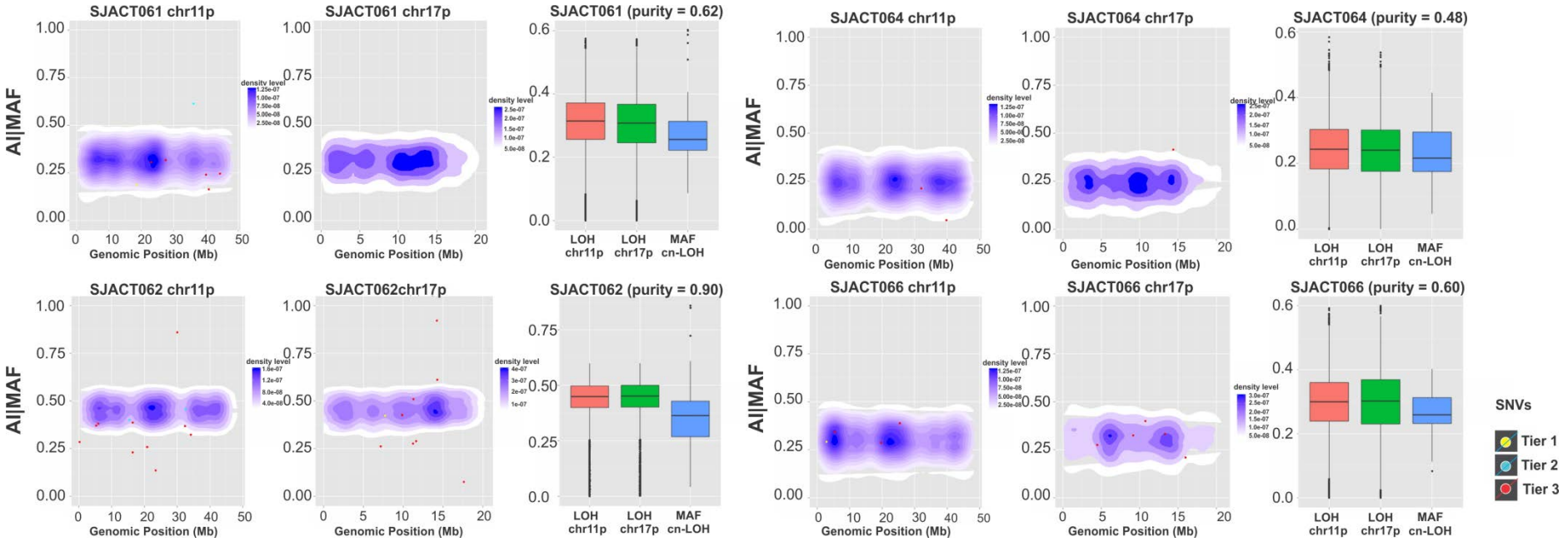
b.



Supplementary Figure 7 Timing of cn-LOH in pediatric ACTs in the WGS cohort. (**b).** Timing of cn-LOH in pediatric ACTs in the WGS cohort. AI = allelic imbalance; MAF= mutant allele fraction; chr = chromosome; LOH = loss of heterozygosity.

Supplementary Figure 7

b.



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Supplementary Figure 7

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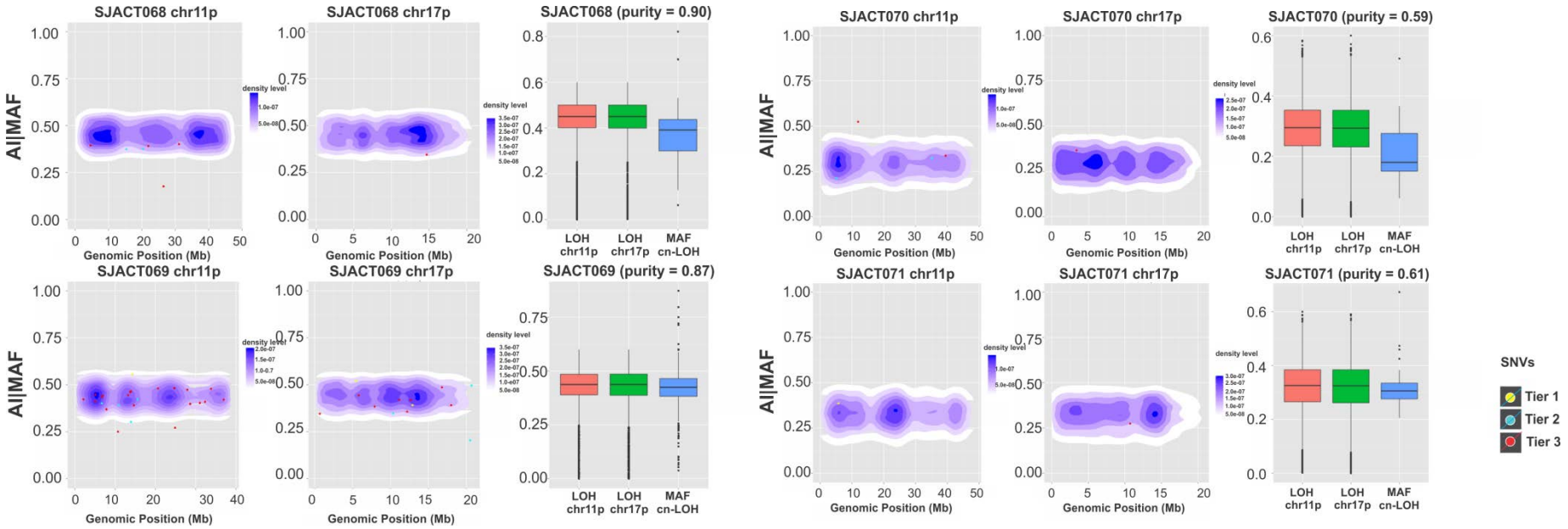

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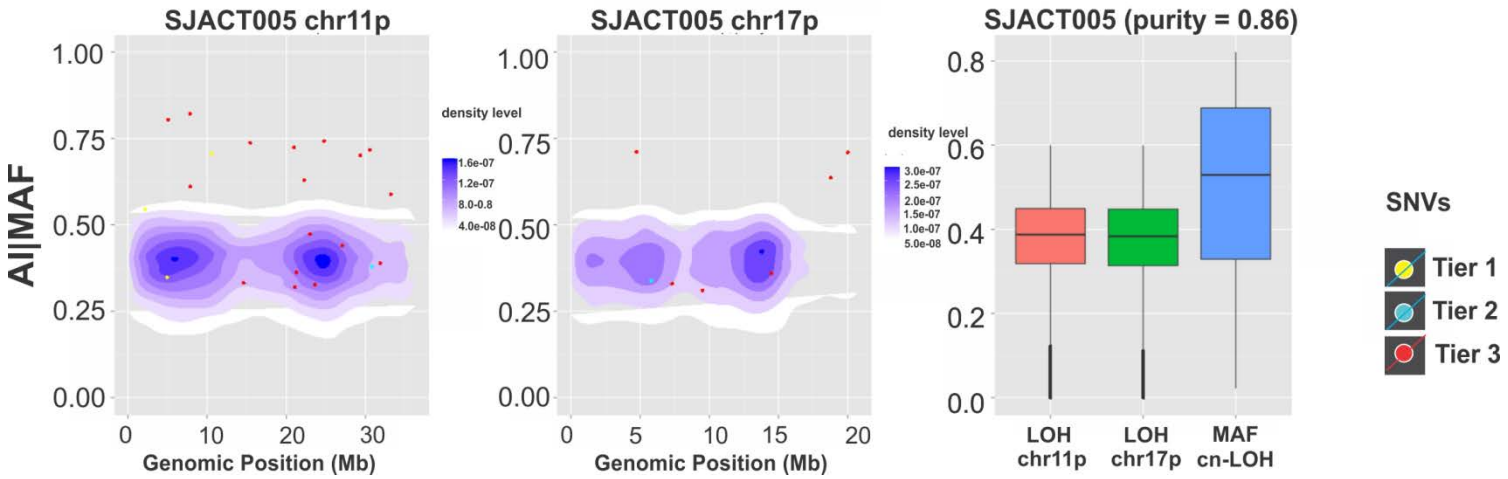
Supplementary Figure 7

b.



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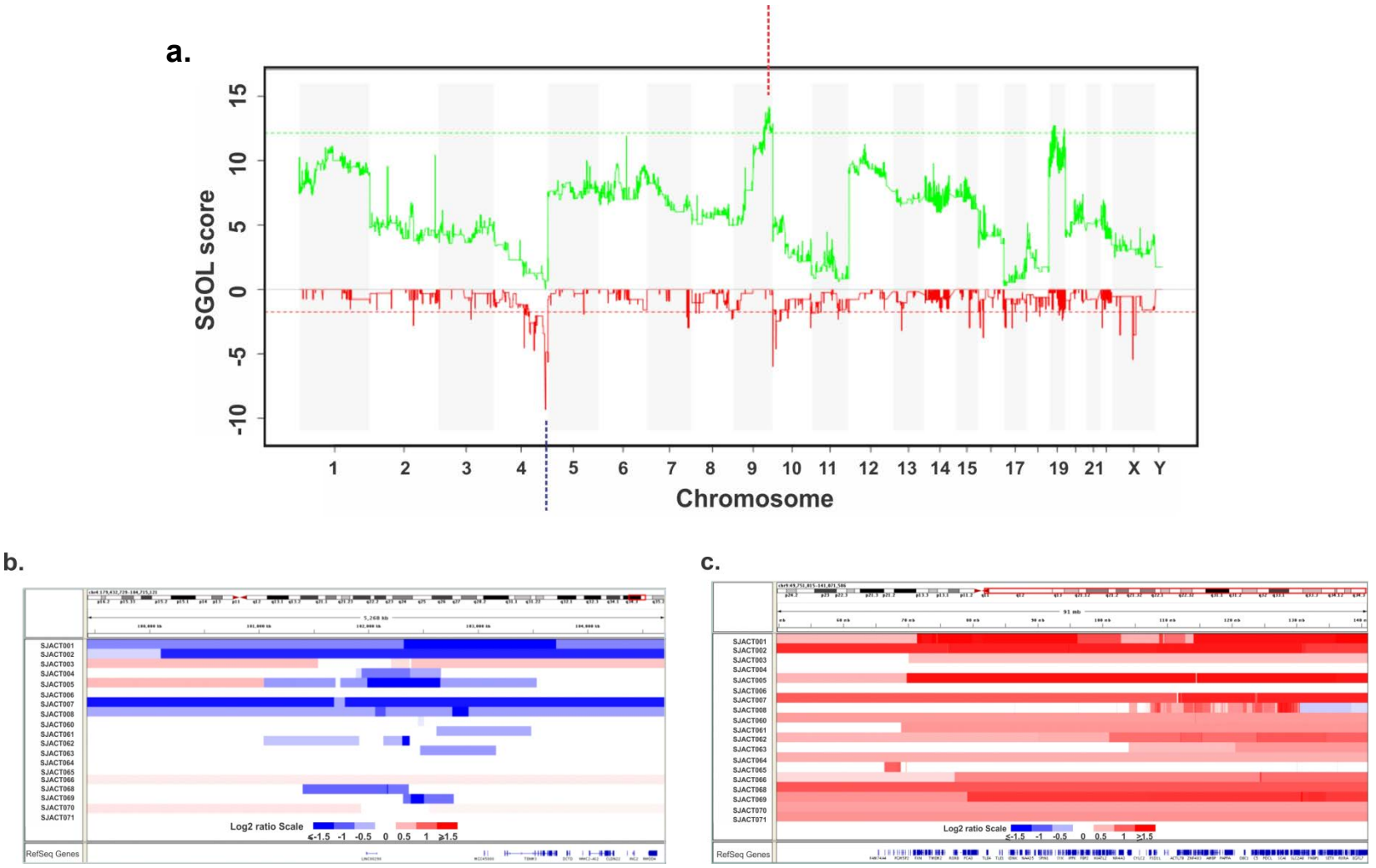
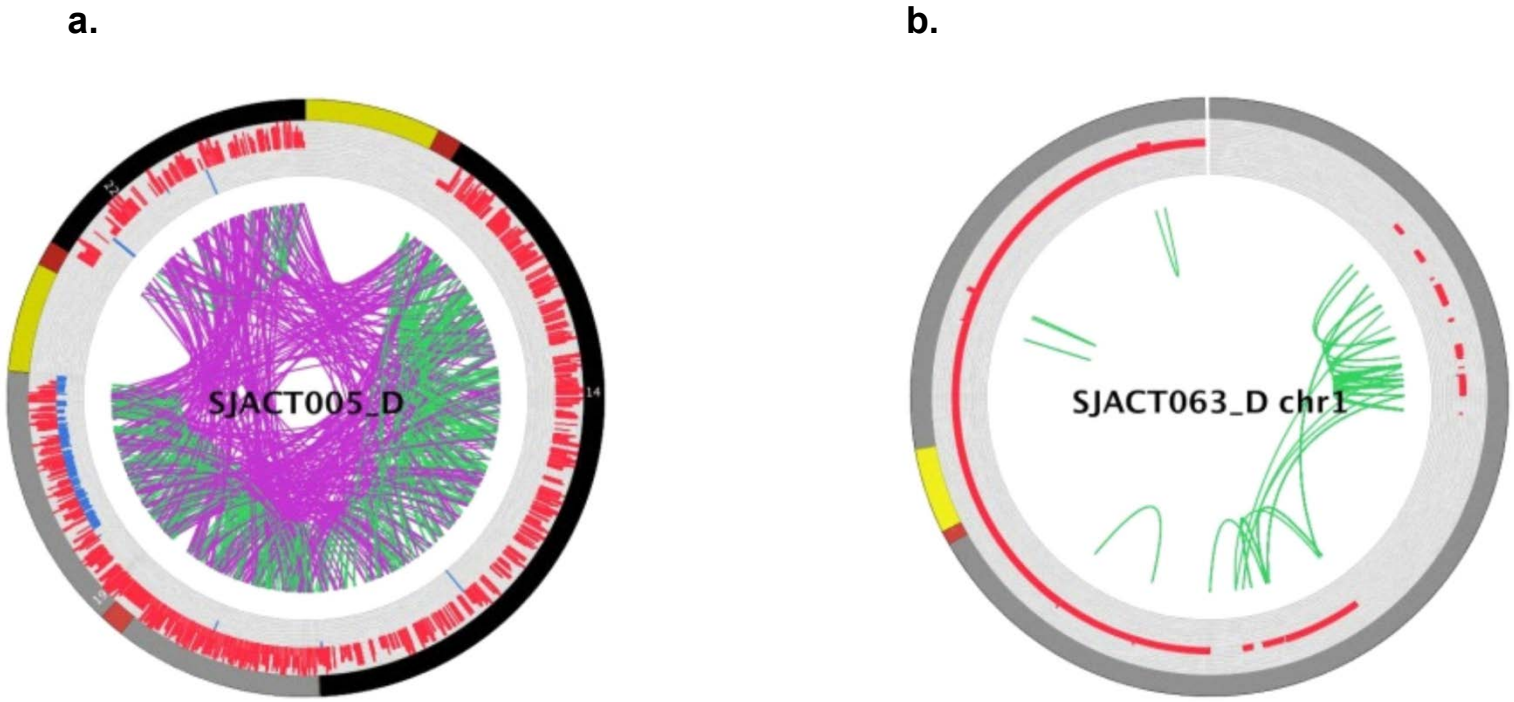
Supplementary Figure 8



Supplementary Figure 8 Chromosomal copy number changes in pediatric ACT. (**a**) GISTIC analysis showing copy number gains (green) and losses (red) across all chromosomes. Dashed lines represent the threshold of statistical significance. SGOL, segments of gain or loss. (**b**) CNA profile of focal deletion of 4q34. (**c**) CNA profile of copy number gain at 9q.

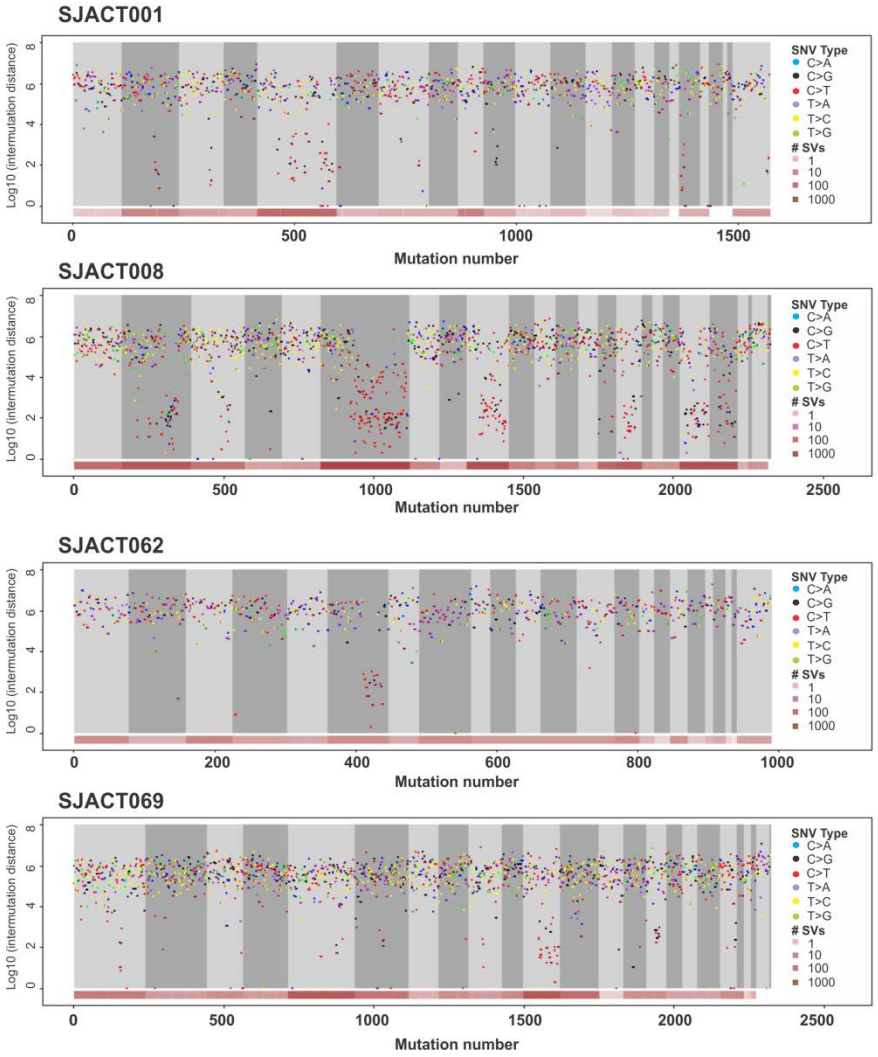
Supplementary Figure 9



Supplementary Figure 9 Signatures of chromothripsis in the (a) SJACT005 and (b) SJACT063 tumor samples.

Supplementary Figure 10

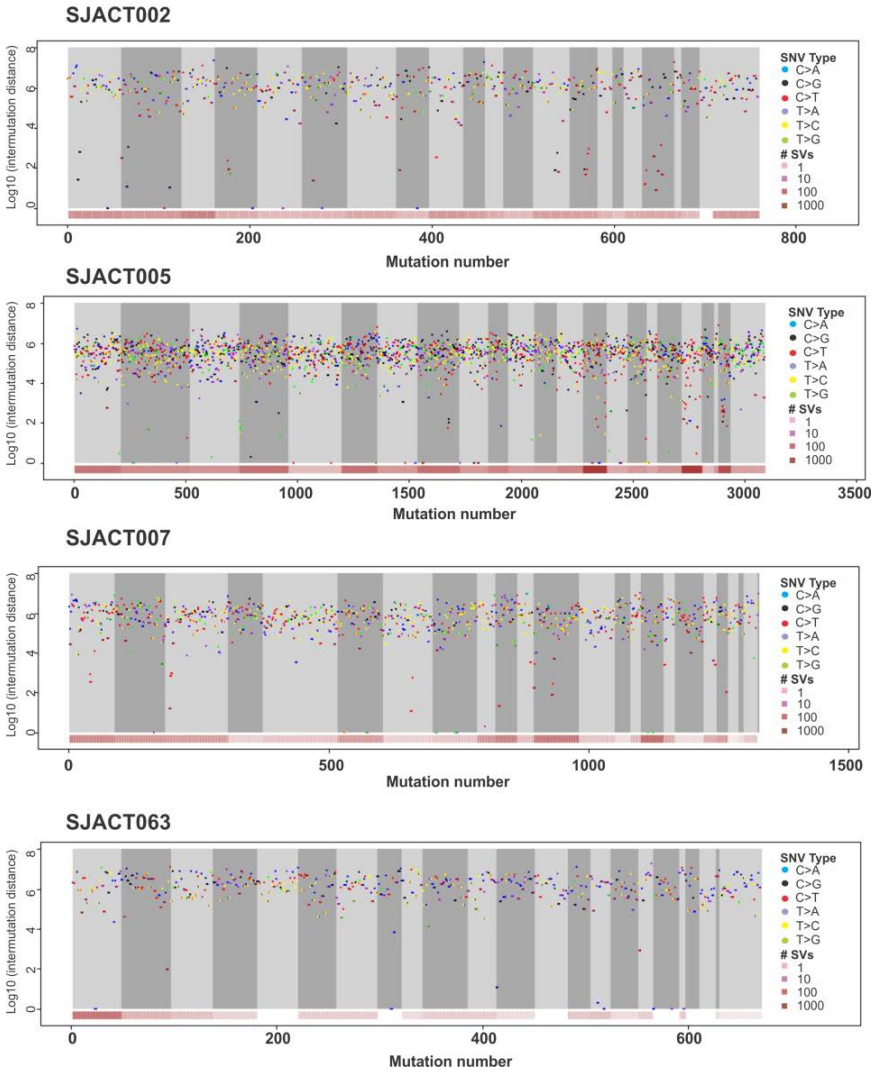
a.



Supplementary Figure 10 Signatures of kataegis. (a) Rainfall plots for all ACTs with at least 500 SNVs in WGS.

Supplementary Figure 10

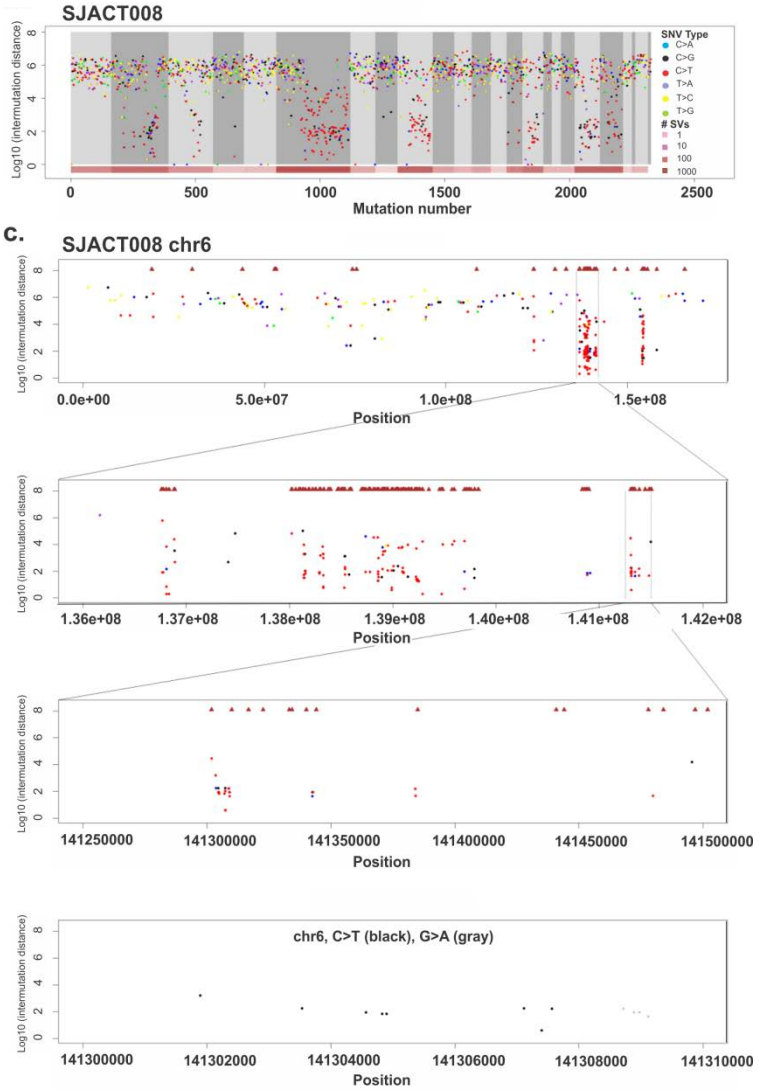
a.



Supplementary Figure 10 Signatures of kataegis. (a) Rainfall plots for all ACTs with at least 500 SNVs in WGS.

Supplementary Figure 10

b.



Supplementary Figure 10 Signatures of kataegis. **(b)** Detailed analysis of SJACT008.

Supplementary Table 1a Clinical data for pediatric ACT _ WGS cohort

	PCGP ID	*TP53* status	Gender	Clinical Presentation	Tumor Histology	Age at diagnosis (mo)	Tumor Weight (g)	Stage	Initial Treatment	Tumor spillage	Metastasis	Relapse	Treatment after Relapse	Suvival Status	Follow-Up (mo)
1	SJACT001	I332F	F	V	ACC	35.7	1250	III	S	yes	no	yes	S+C	Alive	95
2	SJACT002	R213Q	F	V+C	ACC	31.5	98.3	III	S	yes	no	yes	S+C	Alive	111
3	SJACT003	WT	F	V	Undeterm	15.6	28.4	I	S	no	no	no		Alive	51
4	SJACT004	WT	F	V	ACA	59.8	20.5	I	S	no	no	no		Alive	50
5	SJACT005	R273C	F	V	ACC	184.7	1052	IV	S	no	yes	yes	S+C	Died	17
6	SJACT006	WT	F	A	Undeterm	140.6	388	III	S	yes	no	no		Alive	43
7	SJACT007	T125T	M	V	ACC	103	500	III	S	no	no	yes	C	Alive	76
8	SJACT008	G245C	M	NF	ACC	136.6	627	III	S+C	no	no	yes		Died	29
9	SJACT060	R337H	F	V	ACC	38.9	12	I	S	no	no	no		Alive	51
10	SJACT061	R337H	F	V	ACC	38.5	6	I	S	no	no	no		Alive	47
11	SJACT062	R337H	F	V	ACC	56.6	260	III	S+C	no	no	no		Alive	47
12	SJACT063	R337H	F	V	ACC	16.3	68	III	S+C	yes	no	no		Alive	39
13	SJACT064	R337H	F	V	ACC	35.4	30	I	S	no	no	no		Alive	37
14	SJACT065	WT	F	C	ACC (BWS)	17.2	120	II	S	no	no	no		Alive	37
15	SJACT066	R337H	F	V	ACC	19	142	II	S	no	no	no		Alive	36
16	SJACT068	R337H	F	V	ACC	10.6	330	II	S	no	no	no		Alive	29
17	SJACT069	R337H	M	V	ACC	53.8	670	II	S	no	no	yes	S+C	Alive	20
18	SJACT070	R337H	M	V	ACC	9.7	48	I	S	no	no	no		Alive	30
19	SJACT071	R337H	F	V+C	ACC	17.7	86	III	S+C	no	no	no		Alive	32

PCGP=Pediatric Cancer Genome Project
WT=Wild type sequence
F=Female, M=Male
V=Virilization, C=Cushing; A=aldosterone-producing, NF=non-functional
ACC=adrenocortical carcinoma, ACA=adrenocortical adenoma, Undeterm=Undetermined malignancy
S=Surgery, C=Chemotherapy

Supplementary Table 1b Clinical data for pediatric ACT _ WES cohort

	PCGP ID	*TP53* status	Gender	Clinical Presentation	Tumor Histology	Age at diagnosis (mo)	Tumor Weight (g)	Stage	Initial Treatment	Tumor spillage	Metastasis	Relapse	Treatment after Relapse	Suvival Status	Follow-Up (mo)
1	SJACT009	WT	F	V	ACA (BWS)	107.5	L: 21.5; R: 0.8	I	S	no	no	no		Alive	114
2	SJACT010	R196*	M	V	ACC	13.4	341	III	S+C	no	no	no		Alive	42
3	SJACT012	E285V	M	NF	ACC	17.2	NA	III	S	yes	no	yes	O	Died	5
4	SJACT013	G266E	F	V+C	ACC	15.3	58.5	III	S	no	no	no		Alive	71
5	SJACT014	IVS4+1 G>A	F	V+C	ACC	11	307.6	III	S	no	no	no		Alive	38
6	SJACT015	V157F	M	V	ACC	22.8	40	I	S	no	no	no		Alive	33
7	SJACT016	R175H (S)	M	V+C	ACC	15.1	22	I	S	no	no	no		Alive	77
8	SJACT017	R273C (S)	M	V+C	Undeterm	24.1	53	I	S	no	no	no		Alive	26
9	SJACT018	V218M	F	V	ACC	13.9	161.7	II	S	NA	no	yes	S+C	Alive	16
10	SJACT019	WT	F	V	ACC	108	239	III	S+C	yes	no	yes	S+C	Died	42
11	SJACT020	WT	F	V	Undeterm	26.2	69	III	S	yes	no	no		Alive	78
12	SJACT021	Hom del (S)	M	C	ACC	156.6	304	IV	S+C	no	yes	yes	S+C	Died	38
13	SJACT022	WT	F	NF	ACC	88.7	60	III	S+C	yes	no	no		Alive	26
14	SJACT023	WT	F	NF	ACC	182.1	182	NA	S	NA	no	yes	S+C	Alive	20
15	SJACT024	IVS10-2 A>G	F	V+C	Undeterm	34	48	I	S	no	no	no		Alive	47
16	SJACT025	c.933 ins A	F	V	ACA	13.7	14.6	NA	S	NA	no	no		Alive	1
17	SJACT026	R337H	M	V	ACC	NA	NA	NA	NA	NA	NA	NA		NA	NA
18	SJACT027	R337H	M	V+C	ACC	NA	NA	NA	NA	NA	NA	NA		NA	NA

PCGP=Pediatric Cancer Genome Project
S=Somatic, Hom del=Homozygous deletion, WT=Wild type sequence
F=Female, M=Male
V=Virilization, C=Cushing; A=aldosterone-producing, NF=non-functional
ACC=adrenocortical carcinoma, ACA=adrenocortical adenoma, Undeterm=Undetermined malignancy, B=Bilateral
NA=not available.
S=Surgery, C=Chemotherapy, O=observation

Supplementary Table 1c Clinical data for pediatric ACT _ Comparison cohort

IPACTR ID	*TP53* status	Gender	Clinical Presentation	Tumor Histology	Age at diagnosis (mo)	Tumor Weight (g)	Stage	Initial Treatment	Tumor Spillage	Metastasis	Relapse	Treatment after Relapse	Suvival Status	Follow-Up (Mo)
IPACTR001	c.134_135 ins T (S)	F	V+C	ACC	98.6	117	IV	S+C	no	yes	yes	S+C	Died	36
IPACTR002	WT	F	V	ACC	17.2	280	III	S	yes	no	no		Alive	36
IPACTR003	R337H	F	V	ACC	57	2460	III	S+C	yes	no	yes	Obs	NA	16
IPACTR004	WT	M	V	ACC	8	NA	IV	S+C	yes	yes	NA		NA	NA
IPACTR005	K305*	F	NF	ACC	35	NA	III	S	no	no	yes	C	Died	11
IPACTR006	WT	M	NF	ACC	204	625	IV	S+C	no	yes	NA		Died	4
IPACTR007	WT	M	V	ACC	36	578	IV	S+C	no	yes	yes	C	Alive	16
IPACTR008	R282W	F	V+C	ACA	6.7	193	III	S	no	no	no		Alive	10.6
IPACTR009	R337H	M	V	ACC	37.2	1155	III	S	yes	no	yes	C	Alive	0
IPACTR010	R248W	F	V	ACC	16.9	NA	I	S	no	no	no		Alive	43.4
IPACTR011	c.51_53 delCAATinsGACCTG	F	A	Undeterm	189.7	52	III	S+C	no	no	no		Alive	12.9
IPACTR012	c.108_110 duplGTTTCCG	F	V	ACC	25	15	I	S	no	no	no		Alive	9.7
IPACTR013	R273H (S)	F	V	Undeterm	94	92	I	S	no	no	no		Alive	24
IPACTR014	WT	F	NF	ACC	159	2180	IV	S+	no	yes	NA		Died	13
IPACTR015	R337H	M	V	ACC	34	125	I	S	no	no	yes	C	Alive	34
IPACTR016	WT	F	V	Undeterm	6	NA	II	S	no	no	no		Alive	24
IPACTR017	R175H	F	V+C	ACC	144	256	II	S+C	no	no	yes	S	Alive	38
IPACTR018	R158H	F	V+C	ACC	7	62.9	I	S	no	no	no		Alive	31
IPACTR019	E180K (S)	F	NF	ACC	11	30	I	S	no	no	yes	S+C	Alive	36
IPACTR020	WT	F	C	ACC	6	149	II	S	no	no	no		Alive	17
IPACTR021	WT	F	NF	ACC	53	515	III	S+C	no	no	no		Alive	12
IPACTR022	WT	M	V	ACA	15	62	I	S	no	no	no		Alive	12
IPACTR023	WT	F	C	ACA	51.7	169	I	S	no	no	no		Alive	84
IPACTR024	WT	F	V	ACC	47	4.6	I	S	no	no	NA		NA	NA
IPACTR025	WT	M	V+C	ACC	40.7	144	II	S+C	no	no	NA		NA	NA
IPACTR026	WT	F	C	ACA	3	172	II	S	no	no	no		Alive	12
IPACTR027	WT	M	V	ACC	93	250	II	S+C	yes	no	no		Alive	12
IPACTR028	WT	M	NF	ACC	27.8	56	IV	S	no	yes	no		Alive	36
IPACTR029	WT	F	NF	ACC	88.7	60	III	S+C	yes	no	yes	Rad	Alive	36
IPACTR030	WT	F	C	ACC	25	2092	IV	S+C	no	yes	NA		Died	5
IPACTR031	WT	F	C	ACA	124	60	I	S	NA	NA	NA		Died*	0.2
IPACTR032	WT	F	C	Undeterm	22	138	II	S	no	no	no		Alive	12
IPACTR033	WT	F	V+C	ACC	8	118	II	S	no	no	no		Alive	22
IPACTR034	T125M	M	V+C	ACC	14	52	I	S	no	no	no		Alive	5

IPACTR= International Pediatric Adrenocortical Tumor Registry
S=Somatic, WT=Wild type sequence
F=Female, M=Male, V=Virilization, C=Cushing; A=aldosterone-producing, NF=non-functional
ACC=adrenocortical carcinoma, ACA=adrenocortical adenoma, Undeterm=Undetermined malignancy
NA=not available.
S=Surgery, C=Chemotherapy, Obs=observation, Rad=Radiation

Supplementary Table 2a Coverage data for WGS cohort

Patient	G/D	% Reads Mapped	Nucleotides Sequenced	Genome Coverage	Exon Coverage	% Genomic bases covered	% Exonic bases covered	% Coding bases coveres	% SNP Detection
SJACT001	D	95.6	15898437200	41.4	39.7	99	98	98	99.23
SJACT001	G	95.22	12404392600	34.4	32.4	99	98	98	99.22
SJACT002	D	94.49	14823734600	37.3	34.4	98	96	96	99.38
SJACT002	G	95.31	11759178500	33.9	30.6	99	96	96	99.51
SJACT003	D	95.49	12070789600	30.9	29.1	98	95	95	98.89
SJACT003	G	95.63	11363274100	31.9	30.4	99	96	96	99.54
SJACT004	D	93.28	14725671200	34.6	31.4	99	96	96	98.52
SJACT004	G	90.69	12052448600	31.2	27	98	89	87	97.96
SJACT005	D	94.71	12470130000	33.2	31.7	98	97	97	99.01
SJACT005	G	95.35	11169692500	30.1	28.5	99	98	98	99.55
SJACT006	D	95.33	21431358500	62.7	54.5	99	95	95	99.54
SJACT006	G	95.82	12758736000	37	33.1	99	93	92	99.56
SJACT007	D	94.7	17971515800	48.9	43.5	98	93	92	99.51
SJACT007	G	95.35	10324556800	29.6	26	98	89	88	99.51
SJACT008	D	94.02	18677432800	50.9	44.3	99	92	91	99.35
SJACT008	G	94.86	10416142200	29.4	27.2	98	92	92	99.55
SJACT060	D	94.55	21776763500	61.9	56.4	98	97	97	99.58
SJACT060	G	94.66	13010643700	38.8	34.5	98	94	94	99.55
SJACT061	D	91.74	18501575500	51.9	47	98	96	96	99.51
SJACT061	G	92.28	12427944800	36.6	32.4	98	93	93	99.5
SJACT062	D	88.47	21947750000	56.9	51.1	98	96	96	99.56
SJACT062	G	93.95	12491029800	36.9	31.8	98	95	95	99.55
SJACT063	D	92	20694687900	57	52.2	98	96	96	99.58
SJACT063	G	94.07	12921386800	38.3	34.9	98	96	96	99.59
SJACT064	D	92.61	22480798500	62.1	56.7	98	97	97	99.55
SJACT064	G	93.67	13570801800	40	35.1	98	97	97	99.57
SJACT065	D	93.72	16714620500	47.3	42.9	98	97	97	99.58
SJACT065	G	95.59	14491998500	31.1	26.1	98	94	94	99.56
SJACT066	D	91.2	17808127600	47.4	37.6	98	96	96	99.38
SJACT066	G	93.57	10670105600	31.2	29.4	97	96	96	99.5
SJACT068	D	91.15	18989264000	53.4	48.4	98	98	98	99.5
SJACT068	G	84.34	11732905200	32.4	29.3	98	97	97	99.5
SJACT069	D	92.49	20593357800	54.4	50.8	99	96	96	99.31
SJACT069	G	94.11	12401621600	36.6	33	99	96	96	99.53
SJACT070	D	93.6	20007933600	56.7	51.7	99	95	95	99.33
SJACT070	G	93.91	12144212900	35.9	32.6	99	94	94	99.49
SJACT071	D	89.9	19857085100	53.7	48.8	98	96	96	99.47
SJACT071	G	91.2	11796240500	33.6	30.1	98	94	94	99.5

D=Diagnosis sample (tumor), G=germline sample, SNP= single nucleotide polymorphism

Supplementary Table 2b Coverage data for WES cohort

Patient	D/G	Nucleotides Sequenced	% Reads Mapped	Duplication Rate	% Covered Coding Bases >= 10x	% Covered Coding Bases >= 20x	% Covered Coding Bases >= 30x
SJACT009	D	15043256600	98	21	93.6	90.1	85.8
SJACT009	G	12438324200	99	21	92.4	87.7	82.5
SJACT010	D	9318615200	98	18	86.8	78.2	69.4
SJACT010	G	13728257000	99	21	92.5	88.3	83.5
SJACT012	D	19698081800	98	22	94.2	91.3	87.9
SJACT012	G	13877013000	99	20	92.6	88.2	83.6
SJACT013	D	12866056600	97	22	91.6	85.9	79.3
SJACT013	G	12193565800	98	20	91.8	86.5	80.8
SJACT014	D	10917198800	98	18	92.3	87.0	80.6
SJACT014	G	14297086600	98	20	93.7	90.2	86.2
SJACT015	D	14368568200	97	20	93.0	88.6	83.5
SJACT015	G	14743645400	98	20	93.6	89.8	85.8
SJACT016	D	11516477400	99	26	91.7	85.1	77.5
SJACT016	G	9008140000	98	26	88.8	79.7	69.8
SJACT017	D	11667485200	98	26	91.6	85.1	77.1
SJACT017	G	12064808000	99	26	92.7	87.3	81.1
SJACT018	D	14950457800	98	26	93.2	89.1	84.4
SJACT018	G	13222830800	99	26	93.5	89.2	84.2
SJACT019	D	14806895400	99	30	91.6	85.9	79.9
SJACT019	G	13382702000	99	30	91.7	85.8	79.4
SJACT020	D	13612409800	98	29	93.1	88.4	82.8
SJACT020	G	10475897800	99	30	87.3	78.4	69.9
SJACT021	D	11605488000	98	28	90.4	83.2	74.9
SJACT021	G	13781778000	98	29	93.2	88.5	82.5
SJACT022	G	11212136000	99	27	91.8	86.0	79.2
SJACT022	R	15765577000	99	27	94.2	90.9	87.2
SJACT023	D	11508317600	98	26	92.1	86.4	79.9
SJACT023	G	15080363600	99	29	93.2	88.9	84.2
SJACT024	D	14039062200	98	28	92.3	87.3	81.4
SJACT024	G	11570355000	99	26	91.9	86.2	79.8
SJACT025	D	8158218800	99	22	89.7	81.0	70.7
SJACT025	G	10743766000	99	23	92.5	87.2	80.7
SJACT026	D	8994594600	97	22	89.2	78.7	66.6
SJACT026	G	9154829000	97	23	86.2	76.9	67.0
SJACT027	D	7224613200	96	23	83.0	69.9	56.8
SJACT027	G	4000300000	97	22	65.7	44.5	29.4

D= Diagnosis sample (tumor), G= Germline

Supplemental Table 2c Coverage analysis for RNASeq in the WGS cohort and normal samples

Patient	D/G	Nucleotides Sequenced	% Reads Mapped	% Dup	% Covered Bases >= 10x	% Covered Bases >= 20x	% Covered Bases >= 30x
SJACT001	D	23270039200	72	19	64.5	56.5	50.9
SJACT002	D	12696074800	68	25	54.1	44.2	37.7
SJACT003	D	12320771000	78	28	53.5	43.6	37.2
SJACT004	D	12883935400	79	40	52.0	41.5	34.6
SJACT005	D	3410950000	93	12	41.4	29.3	22.3
SJACT006	D	12723336200	97	16	65.1	57.8	52.4
SJACT007	D	13409165800	97	50	53.7	43.3	36.5
SJACT008	D	48216816800	80	35	73.4	67.6	63.5
SJACT060	D	8548055200	97	24	52.7	42.0	35.4
SJACT061	D	10048473800	98	19	61.2	51.2	44.5
SJACT062	D	10912405800	97	20	56.6	47.3	41.2
SJACT063	D	8616942200	98	18	54.7	44.8	38.4
SJACT064	D	9706920000	98	16	59.4	49.9	43.5
SJACT065	D	10059846800	97	22	60.2	51.4	45.2
SJACT066	D	10841827800	98	15	61.6	52.2	45.8
SJACT071	D	11180247600	98	20	60.8	51.0	44.3
C1	G	7795391200	99	18	57.3	46.7	39.6
C2	G	8864573000	98	27	50.7	40.2	33.9
C3	G	7853147800	99	13	60.8	49.8	42.4
C4	G	11428112400	98	34	55.9	44.7	37.5
C5	G	9209946200	99	24	57.7	46.2	38.7
C6	G	11059529200	99	27	58.3	48.1	41.1

D= Diagnosis sample (tumor), G= Germline

Supplementary Table 3a Validated Tier1 SNVs in the WGS cohort

Sample	Gene	protein_gi	chr	pos	class	flanking_region_5	flanking_region_3	Ref Allele Counts	Non-ref Allele Counts	Origin	Validation status
SJACT001_D	MARS	14043022	12	57892223	NONSENSE	GTACTCTCGCCTCCGCCAGT	GAACACCCTCTATCTGTGTG	G	A	SOMATIC	VALID
SJACT001_D	SNTB2	5803177	16	69337498	UTR_3	TGTGAAATGAAAGTGTGGGA	GTTTCCTTTGTCCATTAGCA	G	C	SOMATIC	VALID
SJACT001_D	NRXN3	21070969	14	79117571	MISSENSE	CTCAAGAGGACTATACCATG	TGGGCTCGGACGACTTCTTC	C	G	SOMATIC	VALID
SJACT001_D	TTC16	21450645	9	130478405	UTR_5	TAGTTGGCAGAGGCCTCGGG	TCCTCCTGGAAGGGGCCTCA	G	A	SOMATIC	VALID
SJACT001_D	AKT1S1	148806906	19	50374960	SILENT	GGGCCGGCGGGGGTCTCCTC	CTCAGGCTGCCATCTGAAAG	G	A	SOMATIC	VALID
SJACT001_D	TNC	153946395	9	117840359	MISSENSE	CTGTGAGATCGATGGTGGTA	GGTCTCCTGGCACGTCTTTG	C	T	SOMATIC	VALID
SJACT001_D	DNHD1	222144249	11	6519290	UTR_5	CTCCTAACCCCATTGACTCT	ACCATCCCCTGCCCAGAGCC	G	A	SOMATIC	VALID
SJACT001_D	DNAH10	198442844	12	124403310	MISSENSE	GGCCAGCAGCCAGGAGGGGG	CCATCCTGTTCTTCGTCCTG	G	A	SOMATIC	VALID
SJACT001_D	HIVEP1	116805342	6	12122411	MISSENSE	TTAAAGATTCTTTCCAGTTT	ATTTAAAACCAGTGGGACGG	G	C	SOMATIC	VALID
SJACT001_D	CHFR	239048907	12	133417745	UTR_3	TATGCTCCCTTCTCCTGAAA	AATGTTTTTGATAAACTTGC	C	T	SOMATIC	VALID
SJACT001_D	ARHGAP29	134304853	1	94637606	UTR_3	AAGTTGCATTTTCTATTGTT	AAAACTACCAGATATTATTT	A	T	SOMATIC	VALID
SJACT001_D	PCLO	150378539	7	82585090	MISSENSE	TGATGTAGGGGATGTACCAG	AGTGAAGCTGGAAGCATGCA	G	A	SOMATIC	VALID
SJACT001_D	SREBF2	27477113	22	42289206	MISSENSE	GCGCTGGCTCTGCCACCCCC	GGGCCAGAAGTTTTTCATGG	T	A	SOMATIC	VALID
SJACT001_D	BPESC1	-1	3	138843609	EXON	TGTGAATGAAATGATACGAT	TCTCAGATTTGCTTTAAAAT	G	T	SOMATIC	VALID
SJACT001_D	KIAA0125	-1	14	106391533	EXON	GTTGCTTCTATGATGGTGAA	GGGCAGCTGTGACACGGAGG	C	A	SOMATIC	VALID
SJACT001_D	LOC648740	-1	1	104112645	EXON	TGTCATGGGCTTTGGAGATG	GGTCACCCACATGGTGCCCA	G	T	SOMATIC	VALID
SJACT001_D	ATRX	20336209	X	76938317	NONSENSE	ATAATTAGAAGACTCAGACT	GGTTTGTCGTTTCTTTTTAG	G	A	SOMATIC	VALID
SJACT001_D	LGR5	4504379	12	71977807	MISSENSE	TGAAATATTCTGCAAAATTT	AAACGAAAGCTCCATTTTCT	G	C	SOMATIC	VALID
SJACT001_D	MKI67	103472005	10	129901652	MISSENSE	GGGTATTTTAGTGGTTTTGT	ATCAGTCATTGATTCTTCAG	C	T	SOMATIC	VALID
SJACT001_D	EVC	24497531	4	5814486	UTR_3	GAGCATCACAGGATGTTCCA	TGTCCCTGGTCTCTGCCCAC	G	T	SOMATIC	VALID
SJACT001_D	MID1	148833499	X	10416418	UTR_3	AAAATCAATCCAAAGTGGTG	TGCTATTTGTGACAGAACAT	C	T	SOMATIC	VALID
SJACT001_D	RRP15	126362983	1	218458670	SILENT	CGCAGAAAAATGGCAGCCGC	GCTCCGGACTCACGTGTGAG	C	T	SOMATIC	VALID
SJACT001_D	SLC2A9	47933389	4	9998560	SILENT	GACTCATTGTAAAAGGCCTT	ATGTACTGAAAATAAACAAC	G	A	SOMATIC	VALID
SJACT001_D	NCRNA00112	-1	21	43137269	EXON	ATCCACCTGTAGACCTGGAC	GGACCCTCGAGGCTCCCTAC	G	A	SOMATIC	VALID
SJACT001_D	PLDN	6912574	15	45879703	MISSENSE	ACGGCCACCCTACTGCCTGG	GGCCGGGGAGCCGACGCCTG	A	G	SOMATIC	VALID
SJACT001_D	NCRNA00245	-1	10	77163728	EXON	TGCTCGCCCTCTCCTCTTGG	CCATCTCACTCCCCTCCCCC	C	A	SOMATIC	VALID
SJACT001_D	RAPGEF2	7657261	4	160279411	UTR_3	GGACCAGTTTGCCTCCTTCC	TGCCTTAAAAGCAGCATGGG	C	G	SOMATIC	VALID
SJACT001_D	DCLK1	4758128	13	36428666	SILENT	CGCAGGCTTCCTGGGCTGGT	GGTGATGGGCTTGGCGACTT	G	A	SOMATIC	VALID
SJACT001_D	C1orf27	256000760	1	186390352	UTR_3	CTTCAAGAAGGGAAATGATT	TAAAAGGATTATCTGAAATT	C	A	SOMATIC	VALID
SJACT001_D	ZNF862	149773449	7	149557707	SILENT	CCCAAAGAGACCAAACTCTT	TGCTCAGCCTGCATAGAAAG	C	T	SOMATIC	VALID
SJACT001_D	GRM1	166999223	6	146720275	SILENT	TGCACCCGGAAGCCCAGGTT	ATGAGTGCCTGGGCTCAGGT	C	T	SOMATIC	VALID
SJACT001_D	SR140	122937227	3	142731125	MISSENSE	GACACGACCTAAGAGCCCAA	AAAACATAATTATAGGAATG	G	T	SOMATIC	VALID
SJACT001_D	MYOM2	156104903	8	2048692	MISSENSE	CCTACGACTTGACGTTCTGT	AGGTCAGGGACACGTCCTTG	G	A	SOMATIC	VALID
SJACT001_D	SRPK1	47419936	6	35802766	UTR_3	TACACCTTCATAGCTCTTTT	AAAAAGGATGCTTATAATTT	C	T	SOMATIC	VALID
SJACT001_D	SLC2A14	-1	12	7985416	SPLICE_REGION	CAGAGCTGGGGTGACCTGGA	AGACAGAGGACAGGGAGGAG	G	C	SOMATIC	VALID
SJACT001_D	ZNF800	39753953	7	127011861	UTR_3	AACCTTTTCGTACATCACTT	AAGTTATCTGAGGAGAAATG	G	C	SOMATIC	VALID
SJACT001_D	PCLO	150378539	7	82583690	SILENT	ATGGGTGAAGAGCTATCTGT	GTACAGACCGAAGAAACAGA	G	A	SOMATIC	VALID

SJACT001_D	LOC150622	-1	2	6113986	EXON	TGTTACATCCATTGAGGTCA	ATTCTTGAAGTGCATTTTGA	C	T	SOMATIC	VALID
SJACT001_D	RAB5B	4506371	12	56387049	UTR_3	CCCACCTTCTTTTTAATTCA	TGAAATCTGAGGTTAATGCG	A	G	SOMATIC	VALID
SJACT001_D	ISOC1	103471987	5	128448643	SILENT	CCAAAATTCAAGGAAATTCA	AATCTAATTAAGGCGAGTGC	G	A	SOMATIC	VALID
SJACT001_D	RTKN2	26190614	10	63953399	UTR_3	CCCCACTCTGAGGCGCTCTG	AGGAATAAAGTACTGAGGGA	C	T	SOMATIC	VALID
SJACT001_D	GPR56	224809323	16	57695718	MISSENSE	CCATGGTGGTGCAGATCCTG	GGCTGCGCCCCCACACCCAA	C	T	SOMATIC	VALID
SJACT001_D	TMCC3	188497714	12	94965485	MISSENSE	GGTGGAGCTCCAGCTTAGAA	TGCGAGTCTGGCAGGATTCC	A	G	SOMATIC	VALID
SJACT001_D	C3orf39	31542693	3	43120902	UTR_3	AGGATCACCTAGCCAGAGGT	CCTTGTGATTCTTTGCTTCC	T	C	SOMATIC	VALID
SJACT001_D	OPRM1	-1	6	154428958	SPLICE_REGION	GCTTACAGGTGTTCCAAGCC	GTGTTTTATCCTGAAGTATC	C	G	SOMATIC	VALID
SJACT001_D	GRAMD2	60593095	15	72454320	UTR_3	CCCAGAACATTCTTCTTGGA	AAGGAATGGGGACAAAGGCC	G	A	SOMATIC	VALID
SJACT001_D	KRT76	153791670	12	53162647	SILENT	CTGTGGCTCACGGAGATGCT	CCTGCACCGCCGAGCCTGCT	A	T	SOMATIC	VALID
SJACT001_D	ILF3	24234750	19	10800101	UTR_3	CCAGGCCCCCGCCCCCATCC	GTCCACGTTGCTGTGTCGTG	C	T	SOMATIC	VALID
SJACT001_D	CHL1	-1	3	391235	SPLICE_REGION	TTATAGTAGAAGGTACCTTT	CCATGTTGGTCTATTTCTCT	C	T	SOMATIC	VALID
SJACT001_D	OR10K1	52218852	1	158435748	MISSENSE	TCTGTAACCCACTGCGCTAC	CAGTGCTCATGGGACATGGG	T	C	SOMATIC	VALID
SJACT001_D	C20orf26	269847414	20	20226827	SILENT	CTCCCAGGAAAAAAACTTCT	GACACTGAACAAAGGAAATT	G	T	SOMATIC	VALID
SJACT001_D	SR140	122937227	3	142731067	MISSENSE	TTTTACTTTTCCTGAAGATG	ATGCATCTGGACCCTCAGAT	G	A	SOMATIC	VALID
SJACT001_D	PCLO	150378539	7	82581783	NONSENSE	ATGGGGGCTCAGCATGCTTT	ATGTTGTAAGTTGGAGTGGT	G	C	SOMATIC	VALID
SJACT001_D	HIVEP1	116805342	6	12122338	SILENT	CTGGATAGTGTGAAGCCGCG	AGAACCTCACTGTCAAGACG	G	A	SOMATIC	VALID
SJACT001_D	FLI1	7110593	11	128628121	MISSENSE	CGGGGAGTCCTGACTACGGG	AGCCCCACAAGATCAACCCC	C	A	SOMATIC	VALID
SJACT001_D	PCDHA11	9256576	5	140248576	UTR_5	CATCATACCGGATGCCACCG	TTAAGGATCCTTTGAAACTT	T	C	SOMATIC	VALID
SJACT001_D	NSD1	19923586	5	176562465	MISSENSE	CTTCCTTGAGTCCTGGTGGT	CTACAGCACTTGCTATGAAA	C	T	SOMATIC	VALID
SJACT001_D	IRX5	139394646	16	54966426	MISSENSE	GCAGGGCTCTCCCTACGACC	CACACCCGGCATGGCGGGCT	A	G	SOMATIC	VALID
SJACT001_D	SH3TC2	38488692	5	148380595	UTR_3	ATTTAATATCAAAATCAAGA	CAAAATACAGGTTCCCTTTA	C	T	SOMATIC	VALID
SJACT001_D	SLC37A4	256219564	11	118900250	UTR_5	TGGACAATCATTAAGCCTGG	GAGGCTCCAAGGGGACCCAG	G	A	SOMATIC	VALID
SJACT001_D	ZNF761	209954795	19	53960678	UTR_3	ACCTCACATGTGTGATGATA	TGGCAAAGCCTTCACTTCAC	G	A	SOMATIC	VALID
SJACT001_D	XPO6	46049063	16	28109396	UTR_3	AAAACAACAAAAACGTGAGT	TTTGCAAATCTCTGACAAAG	C	G	SOMATIC	VALID
SJACT001_D	TAF9B	20070280	X	77387070	UTR_3	ATACTGGGCTCAAAACCAAC	TTCCTTTTGAAATGCATCTA	T	A	SOMATIC	VALID
SJACT001_D	KIAA1407	24308223	3	113683777	UTR_3	ATTTGAACAGACGATCTCTA	AATGTTCCTTTGGATGATCC	G	C	SOMATIC	VALID
SJACT001_D	TTN	291045225	2	179501274	MISSENSE	ACCTGTGCTTGGGACTCTCA	GGATATTGCTACCGTCTTTC	C	T	SOMATIC	VALID
SJACT001_D	LOC153910	-1	6	142848780	EXON	ATGATCTGATGGGACTAGTA	AGCTTGTTCCACTTGGGTCA	G	A	SOMATIC	VALID
SJACT001_D	IL19	30795208	1	207016080	UTR_3	AAGGCCCCTTGCAGCTGAAA	TCCCACTGGCTGGCCTCAGG	G	A	SOMATIC	VALID
SJACT001_D	LOC731789	-1	10	26934863	EXON	TTGGCAGGTTTTTCTTAGCA	ACTAATCAGCTCAGGATATG	G	C	SOMATIC	VALID
SJACT001_D	C21orf34	-1	21	17980877	EXON	AGGCTGTAGTTTGCTGACCC	TGAATTAGAGAGTCTTCCCC	T	A	SOMATIC	VALID
SJACT002_D	UBC	67191208	12	125397519	MISSENSE	AAAGATCAACCTCTGCTGGT	AGGAGGAATGCCTTCCTTGT	C	G	SOMATIC	VALID
SJACT002_D	PCDHB5	7661662	5	140517612	UTR_3	TACATAGTGTCATTCCAAAT	CATGCATGCTGTTGATTTTC	C	A	SOMATIC	VALID
SJACT002_D	MMP20	45359865	11	102480724	SILENT	GCAAATGCATGGGCTAGAGT	CCCCGAGGCCCATCGAATGG	C	T	SOMATIC	VALID
SJACT002_D	SLAMF8	9910342	1	159802967	MISSENSE	TGGGATAGCTGTCATCATGA	GCAGGTATGCTAAGGGCCAG	G	T	SOMATIC	VALID
SJACT002_D	EPHX1	4503583	1	226030069	MISSENSE	CTCCCCGCTCCCCGCCAGGC	CTGCTCTGAATGACTCTCCT	T	G	SOMATIC	VALID
SJACT002_D	RNF13	6005864	3	149563898	MISSENSE	AGCTCTTTGCATTCTTAAAC	TACTGCCTGTAGAAGCAGAC	C	G	SOMATIC	VALID
SJACT002_D	PKD1L1	-1	7	47898266	SPLICE_REGION	TGGATGGAGAAAAAGTGTGA	TTACCAACAATAAATCTGAG	C	T	SOMATIC	VALID
SJACT002_D	FAM54B	153251771	1	26158555	UTR_3	AACTCAGTCTCATGCTCCTG	AATACCTTCAATAGCTGCCT	G	C	SOMATIC	VALID
SJACT002_D	DSG3	119964718	18	29057373	UTR_3	TTATGTTAACAATGTCTGCA	ATTTTGTAGGAATACAAAAC	G	T	SOMATIC	VALID

SJACT002_D	ATRX	20336209	X	76919020	NONSENSE	ATTCTTCAGAATCTGAATCT	ATTCAGAATTGACTTGATTT	G	C	SOMATIC	VALID
SJACT002_D	ERCC5	51988900	13	103520518	SILENT	TTGCTTGGAAGTGATTATAC	GAAGGAATACCAACTGTGGG	C	A	SOMATIC	VALID
SJACT002_D	USH2A	219842266	1	215972339	MISSENSE	GCCACAGCACTTCTGGCCAT	GCCATCATGAAGCCTCCCAG	G	C	SOMATIC	VALID
SJACT002_D	CCT7	-1	2	73471185	SPLICE_REGION	AGGCAGATAAAGTGTAAGTC	GTAGTGGGTTTTTTTTTTTT	T	G	SOMATIC	VALID
SJACT002_D	SRRM1	42542379	1	24981454	SILENT	AGGACATCCAGCCCCCCTCG	AAAACTCGTAGGTTATCTCC	G	A	SOMATIC	VALID
SJACT002_D	KIAA0195	-1	17	73484225	SPLICE_REGION	GGGGGATCAAGGTAGCTTGA	GCTTTCCTTCTCCCTTGGAA	G	A	SOMATIC	VALID
SJACT002_D	LOC100130954	-1	9	138466928	EXON	GGGACCCAGATGGTTCCTGT	CCCGCTGAGAAGGTGAGAGC	C	T	SOMATIC	VALID
SJACT002_D	GRIN2A	-1	16	10032411	SPLICE	GAAGGTAGACGTCGGATCCT	CCAGTGAAAAGAAAGTAAAA	G	A	SOMATIC	VALID
SJACT002_D	USH2A	219842266	1	215972340	SILENT	CCACAGCACTTCTGGCCATG	CCATCATGAAGCCTCCCAGC	G	T	SOMATIC	VALID
SJACT002_D	PHEX	90403592	X	22095638	MISSENSE	AGCCACTGCTACACATCCTA	GGCATTCACCTTTCCGCTGG	C	T	SOMATIC	VALID
SJACT003_D	C1orf127	-1	1	11009672	SPLICE_REGION	ATGGGCAGAGGATGCAGCCA	AGACGTGCTTTGGCCAGTGC	T	C	SOMATIC	VALID
SJACT003_D	NCRNA00277	-1	15	69387624	EXON	CTGCACAGGATTCCTGCTCC	CCTCTACCCCACCCTTAAGC	G	A	SOMATIC	VALID
SJACT003_D	COL6A5	-1	3	130203516	EXON	GAGGCTAATTTTATGAACCA	ATTTTTTGCTGTAATCTTTT	T	C	SOMATIC	VALID
SJACT003_D	PPP5C	5453958	19	46857210	SILENT	GCTGCCAGCAACATGGCACT	GGCAAGTTCCGGGCCGCGCT	G	T	SOMATIC	VALID
SJACT003_D	NBN	-1	8	90990552	SPLICE	CAAATGAGTGCACATATTGT	TACAATGAAGAAAACATGTG	C	G	SOMATIC	VALID
SJACT003_D	CIITA	156938336	16	11010257	SILENT	AGTGAGAACAAGATCGGGGA	GAGGGTGTCTCGCAGCTCTC	C	T	SOMATIC	VALID
SJACT003_D	BIRC8	44680139	19	53793317	MISSENSE	GGAAGATGGTATCACTGATT	TTTTAGTTAGTGATGGTGTT	C	T	SOMATIC	VALID
SJACT003_D	COBLL1	62821787	2	165541711	UTR_3	TTTCACAGAAAGATGTTTAA	GCTTCTGGCACATAAAATGT	G	A	SOMATIC	VALID
SJACT003_D	TMEM5	7657178	12	64202839	SILENT	ATGAAATTTACTAATATTTT	GAAAGCTCATTTTTAATGAA	A	G	SOMATIC	VALID
SJACT003_D	SLC7A14	181337167	3	170181172	UTR_3	CTTCACAAGTTCCAACACAA	TGTGACATTCTTTATGACCT	G	C	SOMATIC	VALID
SJACT003_D	C11orf45	21450729	11	128770667	UTR_3	CCAACTATCCAACTACAAAA	GGGACTAATGTGATAGGATT	G	C	SOMATIC	VALID
SJACT003_D	ZNF135	257470984	19	58579496	SILENT	AGGATCCACACAGGAGAGAA	CCCTATGAATGTAACCAGTG	A	G	SOMATIC	VALID
SJACT004_D	SLITRK4	296080773	X	142723688	UTR_5	CACTCCCCCTACCTGTCTGC	CGTAAGGGGCCAGGGGCTTT	G	A	SOMATIC	VALID
SJACT004_D	DISC1	257153467	1	232172765	UTR_3	AGGAGTCTGCAATTTGGAAT	TGGAGAGAGAGACTGATTTG	A	G	SOMATIC	VALID
SJACT004_D	NCRNA00099	-1	4	21850258	EXON	GTTATTTAAAAAATCTAAAC	TTGCTCTAAAATATCCCTAA	G	A	SOMATIC	VALID
SJACT004_D	TPTE	-1	21	10944794	SPLICE_REGION	AATACTGCTGTCTCCTGTAA	ATAAAACAAAAAAAATAAGT	T	C	SOMATIC	VALID
SJACT004_D	CHST14	18497304	15	40765065	UTR_3	TACACCTGCCAGTTCTTTAC	TTTTTCCAAGGAAAGGAAAA	A	G	SOMATIC	VALID
SJACT004_D	RBBP6	33620769	16	24574552	MISSENSE	TAAAATATTGCCAGCTGCAG	TCTTGCATCAGAGCACTCAA	C	T	SOMATIC	VALID
SJACT004_D	1-Mar	261823980	4	165304355	UTR_5	TCACCCGTGAGCGCAGGACC	TCCTGGCGTCTTAAGTCCCA	C	A	SOMATIC	VALID
SJACT004_D	CHAT	218931226	10	50854612	SILENT	ATCTGCCTTGTATGCCTGGA	GCGCCAGGAGGCGTGGAGCT	C	T	SOMATIC	VALID
SJACT004_D	CREB5	59938776	7	28861755	UTR_3	AAACCAACCACACACATTAG	AAACCGGCCTCAACATATAA	C	T	SOMATIC	VALID
SJACT004_D	HIST1H2AD	10800130	6	26199447	MISSENSE	AGCCTTAGCTCGGGCCTTTC	GCCTTGCTTGCCGCGTCCGG	C	G	SOMATIC	VALID
SJACT004_D	HS3ST4	104876423	16	26148283	UTR_3	CCCTCTAAATGGGGTTGGGT	TCACTCTTCATGAGTATCCT	C	T	SOMATIC	VALID
SJACT005_D	ADSSL1	40316944	14	105201404	NONSENSE	GTGGTGGATGGGAAAGAGTA	GACTTCCACCTGCTGCCCAG	C	A	SOMATIC	VALID
SJACT005_D	PCDHA13	9256580	5	140263899	SILENT	CCACAGGCTTCGTCGAGGGC	TCGGCAGGCGCTGTGGGTCC	G	A	SOMATIC	VALID
SJACT005_D	ABCC1	134142335	16	16235682	UTR_3	GGAGAAAATCATTTTCTCCC	TTGGCAGTGTCCCAGGGCCC	C	A	SOMATIC	VALID
SJACT005_D	IGF2	4504609	11	2154026	UTR_3	TTGAAGATGCTGCTGTGCTT	CTCAGCCCGATGGAGGGGGC	C	T	SOMATIC	VALID
SJACT005_D	CPOX	41393599	3	98299273	UTR_3	ACTTGGAAACTCAATGTCCT	TTTTGTAAACTAGTCATATA	A	G	SOMATIC	VALID
SJACT005_D	PTPN7	315221140	1	202127330	SILENT	GGGTGTCCAGCAGTGCGCAG	AAGTGTAGGGTGACCTCCCG	A	G	SOMATIC	VALID
SJACT005_D	CACNG2	5174405	22	36959757	UTR_3	GGAGTTCCTGGGGCACCCAC	CAGGGGCTCCAGGGACCTGG	C	G	SOMATIC	VALID
SJACT005_D	OR10J1	258613919	1	159410421	SILENT	TCGGTGACCTACACTGTCAT	ACTCCCCTACTGAACCCTGT	C	A	SOMATIC	VALID

SJACT005_D	FSTL4	54792136	5	132533955	UTR_3	CTGGTTTTTTGGGGTCCCAA	ACAGAACCGAGTCCTTACGG	C	G	SOMATIC	VALID
SJACT005_D	KCNJ14	7019439	19	48968629	UTR_3	AAAGCTCATTAGTTGAGATT	TGTGAGTCTAGGTTGACCAC	C	T	SOMATIC	VALID
SJACT005_D	SBF1P1	-1	8	56364383	EXON	GCAAGCCCTTTCCACCAGGA	GCTGCTCATGGTCATGCCGT	G	A	SOMATIC	VALID
SJACT005_D	SCAND3	46195755	6	28540785	MISSENSE	TCCTACACAAAATTTAAATT	CAAACCACATTTGTTAACAA	C	G	SOMATIC	VALID
SJACT005_D	MAP4K4	22035606	2	102510798	UTR_3	TTTCTGTATTGAGTGCAGTG	TTTTTACTCTTTTCTCATGC	T	C	SOMATIC	VALID
SJACT005_D	RETSAT	203098013	2	85571272	SILENT	TAGGCAGTGGGTATGAGCAT	ATCATGGTGGACCGGCCTGG	G	A	SOMATIC	VALID
SJACT005_D	KRTAP3-2	13994364	17	39155704	UTR_3	GTAAGTTCTTCATATCTGGG	CATCTGGTCTACCTTAACAT	T	C	SOMATIC	VALID
SJACT005_D	NUP205	57634534	7	135277818	MISSENSE	TGCTTTACCACGAACACCTT	GGAAGGATCTTCCAAGTGCA	C	T	SOMATIC	VALID
SJACT005_D	THUMPD2	254553431	2	39988470	MISSENSE	GAAGGAAAACATTTTTCTTA	CTTAATGTCAGCCAGAGATG	C	A	SOMATIC	VALID
SJACT005_D	HFM1	130484567	1	91845718	MISSENSE	TTCCATTAACAATCTTGTTA	AGCTAGTTCAAACACTACAG	T	C	SOMATIC	VALID
SJACT005_D	DKFZP781G0119	291621677	18	72024379	UTR_3	TAAATGTAAAAGCTATTTCT	AACAAAACTGGAGCCTTTAT	C	G	SOMATIC	VALID
SJACT005_D	TRAF5	77404348	1	211529790	MISSENSE	CTCCTGGATGTAATGCCAAG	TTATTCTGGGCCGGTACCAG	G	T	SOMATIC	VALID
SJACT005_D	CNTLN	110815815	9	17332703	MISSENSE	AGCTGAAAGAAAGATTGAAA	CTTAGAGAAGGCACTACAAC	A	T	SOMATIC	VALID
SJACT005_D	SH2D4A	21361891	8	19190473	SILENT	TGTTTGTTTGCAGAGAATGG	AAATCGGTTCATTGGAAACT	C	A	SOMATIC	VALID
SJACT005_D	CSPG4	47419930	15	75969395	MISSENSE	TTACATCCCTCACCGTGATG	CAAAGGCCTCTGAGGTTTGG	G	T	SOMATIC	VALID
SJACT005_D	AGBL2	31657119	11	47689187	MISSENSE	TCTGATACTGCTCATTTCGC	GTTTCCTAGTCTGAAGTGAC	T	A	SOMATIC	VALID
SJACT005_D	COBRA1	20070260	9	140157577	MISSENSE	GCGCACGCTCTTCCTGCGCA	GCGGAATGTGCACTACTGCA	C	T	SOMATIC	VALID
SJACT005_D	GOLGA4	6715600	3	37365216	MISSENSE	GTCATGGTTGAAAAACACAA	ACAGAATTGGAAAGCCTTAA	G	C	SOMATIC	VALID
SJACT005_D	C1orf182	21389453	1	156309497	UTR_5	AAATACTAACATGGATTGTT	ATCATCTGATGCTATGATTC	G	C	SOMATIC	VALID
SJACT005_D	GRB10	48762695	7	50772998	UTR_5	TCCCTGGGAGGCAAAGTTGC	TTCACACCTTCCTCCAGAAT	G	A	SOMATIC	VALID
SJACT005_D	RIPK2	4506537	8	90803075	UTR_3	AAAATCCCAGGCTTAATTGC	CTACAAAGGGTTATTAATTT	C	T	SOMATIC	VALID
SJACT005_D	ARID1A	21264565	1	27106042	MISSENSE	CTCGGAAGCATGTGACAACA	CAGAGGGTACACCAGGGACA	G	T	SOMATIC	VALID
SJACT005_D	MON2	114326552	12	62991245	UTR_3	CTTTGCACTTTGGCCACTGT	GCGTTTTTGCCAAGGTAAAG	T	C	SOMATIC	VALID
SJACT005_D	FMNL3	119120874	12	50055809	MISSENSE	CATCCAGGCCTTTGTTTTCA	CATTCAGAAATTCCCGCACC	T	C	SOMATIC	VALID
SJACT005_D	AJAP1	9055278	1	4842911	UTR_3	AAGCATCCGAAACCTAGGAT	CGTCCTACGATTCTGAACCT	T	A	SOMATIC	VALID
SJACT005_D	OR8D1	50897282	11	124180468	MISSENSE	CAGAAATCGACGAAGGACAA	CTGCTGAGGAAATAGTACAT	G	T	SOMATIC	VALID
SJACT005_D	PPHLN1	48255929	12	42842420	UTR_3	AAATAAAGCAACCACATTTA	GTAGATTGTCTTTTCTCTTA	A	T	SOMATIC	VALID
SJACT005_D	KCNJ14	7019439	19	48968509	UTR_3	TGAGTAGCAAATCATTTGTT	TAGACCACCTAAGGAGGGAA	C	G	SOMATIC	VALID
SJACT005_D	SELO	32880229	22	50654248	MISSENSE	CAGGCTGATGGAGCAGTGTG	CTCCCTGGAGGAGCTGAGGC	C	A	SOMATIC	VALID
SJACT005_D	PDE4DIP	311771520	1	144886304	MISSENSE	GGGTCTCCACAGTTGCCAGA	TTTTCTCCAAAGCCACCTTG	C	A	SOMATIC	VALID
SJACT005_D	ZNF208	256418948	19	22171610	SILENT	AAGACCAGGTTTCTGTAGTT	TCTAACATCACATTTCTATA	C	T	SOMATIC	VALID
SJACT005_D	EVPL	156104874	17	74019732	SILENT	GCTCTGCTCACTGTTCAGCC	GTCCTGTGGGCAGGAGATGG	G	T	SOMATIC	VALID
SJACT005_D	RBMS3	295148139	3	30050566	UTR_3	AGAAAATTTTCTTCCACTTA	AAAGCTTTAAAGCTGAAGTA	G	C	SOMATIC	VALID
SJACT005_D	CIC	112421108	19	42798225	SILENT	CTGGGCTCTTACCGCAAGAA	AGGAAGAACTCCACGGGTAG	G	A	SOMATIC	VALID
SJACT005_D	PPP1R3B	153792466	8	8993959	UTR_3	GTATAAAATGAAGATGAGTC	TTGGTTCTACATTCACACTG	C	T	SOMATIC	VALID
SJACT005_D	SLC6A19	51468073	5	1223098	UTR_3	TGGGAGCGACTCTTGCTACC	ACCCCCACCCATCCCCTTCC	C	G	SOMATIC	VALID
SJACT005_D	ZNF230	71143146	19	44514592	MISSENSE	GGCAGGACTATCTATAATTC	TACAGGACAGAAACCTTCAC	A	G	SOMATIC	VALID
SJACT005_D	MYO5B	122937345	18	47432933	MISSENSE	ACTTGTCAGCCCGCAGCTTC	CCAGGTAGGCCACCTGGCCT	T	C	SOMATIC	VALID
SJACT005_D	SBNO2	154355002	19	1108155	UTR_3	GGGGACCTTGGCCCTGCTCC	CACCGCTGCTCCTAGGGGAG	C	T	SOMATIC	VALID
SJACT005_D	MTUS1	50348611	8	17573379	MISSENSE	AATGCTGGTTTTGGAGGTTT	TCCTCATATTTGATGACAGC	C	G	SOMATIC	VALID
SJACT005_D	FAM91A1	84000432	8	124826325	UTR_3	CTATAGAATTGAATATTTTG	ACCATGTTATCTGTGGCACA	G	C	SOMATIC	VALID

SJACT005_D	RNF44	7662486	5	175959076	MISSENSE	CATTCGGGGGCTCCCGCCGG	AGGAGCCGAGGCTCGGCGCT	C	A	SOMATIC	VALID
SJACT005_D	GPD1	33695088	12	50499430	MISSENSE	AGATCTGTGACCAGCTCAAG	GCCATCTGAAGGCAAACGCC	G	T	SOMATIC	VALID
SJACT005_D	KCNJ14	7019439	19	48968572	UTR_3	TCAAGATCATCTTGATTGAC	AAAGACCAAAAAAAAAAAAA	C	T	SOMATIC	VALID
SJACT005_D	TTC31	238859655	2	74710468	SILENT	GACTGCTCTCTACGGCCCAG	TGCCCACTGGAGGTCGCTGC	C	T	SOMATIC	VALID
SJACT005_D	ANKRD11	56676397	16	89350193	SILENT	TTTTCGGTCTGCTCTTTCCT	TTCTCAGAGTTTTTATCCAA	C	T	SOMATIC	VALID
SJACT005_D	HUWE1	61676188	X	53589173	MISSENSE	CTCTTCCTGAGTGTGCTCCT	CTCATCCTCAGGGTCCAGGA	C	G	SOMATIC	VALID
SJACT005_D	ZNF721	119120877	4	435044	UTR_3	ATAATGCTTTTATTAACTAT	AATTTCAAGTAGACAATAGC	A	C	SOMATIC	VALID
SJACT005_D	ZNF721	119120877	4	434980	UTR_3	TAAGACTATTCTTCACTTTA	TGGCCTATATTTTCTAAAAG	A	C	SOMATIC	VALID
SJACT005_D	ZNF721	119120877	4	434899	UTR_3	CTCTAGTACAAAATGCATAT	GTAAGTTCTGGGATACAAGT	A	G	SOMATIC	VALID
SJACT005_D	AAK1	148277037	2	69690215	UTR_3	GTAGCTGCTCATTTTTTACT	CCAATATTCCTGAACTTTAA	G	A	SOMATIC	VALID
SJACT005_D	VGLL3	56550035	3	86988130	UTR_3	CACACTTCAGCTAGGAAGAA	CTGCACTAGATGACCTGTTC	T	A	SOMATIC	VALID
SJACT005_D	SRCAP	146219843	16	30751385	UTR_3	GGGAGGGGCTTCTCTACAAT	AGGTTTTTTTCTTTTTTTTT	G	A	SOMATIC	VALID
SJACT005_D	CERK	-1	22	47097616	SPLICE_REGION	AGTCCGTTGACCCTGTAAAG	GAAAAAGAAGGTCCCAAATA	G	C	SOMATIC	VALID
SJACT005_D	MYH7B	114842389	20	33590030	UTR_3	TCTAAAGAGGAATGTCTGCT	TTGCACATCTGGCTGAGGCC	G	C	SOMATIC	VALID
SJACT005_D	PLCXD3	53828920	5	41312724	UTR_3	CCTCCCTTCCTTCCTTCCTC	CGTCCTTCCTTCTGTCCTTC	C	G	SOMATIC	VALID
SJACT005_D	NOVA2	5902724	19	46443295	SILENT	ATCTGGATGCGAGCGCCCGT	AGCTCCTGGTACTCCACCAA	C	T	SOMATIC	VALID
SJACT005_D	CSPG4	47419930	15	75969394	SILENT	TTTACATCCCTCACCGTGAT	GCAAAGGCCTCTGAGGTTTG	G	T	SOMATIC	VALID
SJACT005_D	RBM8A	4826972	1	145509279	UTR_3	TGCAGCCTTGGACAAATAGG	CTGGGGTGGAACTTGCTGTG	A	T	SOMATIC	VALID
SJACT005_D	NACA	163965366	12	57114175	MISSENSE	TAGAGGGACCTTTGTCAACA	ATGGAGCCACCACTGGAAAG	G	T	SOMATIC	VALID
SJACT005_D	LENG9	206725452	19	54974747	MISSENSE	ACGCCCGCCGCGCAGACGAG	TCGCCCCGCACGGAGGGCGG	G	A	SOMATIC	VALID
SJACT005_D	TYRO3	27597078	15	41854886	MISSENSE	CTACGAAGATCGGGGGACCC	CTCCCTCTCCATCTGTTTTA	G	A	SOMATIC	VALID
SJACT005_D	KLHL4	17017980	X	86890641	MISSENSE	GACCCACACACTAACAAGTG	AGTTTGTGTGCTCCAATGTC	G	T	SOMATIC	VALID
SJACT005_D	TPM3	114155140	1	154137198	UTR_3	ATTTCAAAATAGAATTGTGT	AAGTAAGAACAAAATAAATC	C	G	SOMATIC	VALID
SJACT005_D	TCF3	209915594	19	1612353	SILENT	AATATCCCGCACGCGCACCC	CTCCCGCGCGTTATTGGCCA	G	T	SOMATIC	VALID
SJACT005_D	SV2B	7662270	15	91839856	UTR_3	CACGCTCCTTCTGCCTGATC	TTGGGAGCACACTCTTTCTG	G	T	SOMATIC	VALID
SJACT005_D	SIRT5	6912664	6	13612176	UTR_3	GAAATGGTCTTATGGGTGGT	AGCTGAGTACTGAACAATCT	G	A	SOMATIC	VALID
SJACT005_D	ANKHD1	-1	5	139917854	SPLICE_REGION	GGATTTTTCTAAAGTGAGTT	ACAAACATCACTGTAACTTG	G	C	SOMATIC	VALID
SJACT005_D	OR10J1	258613919	1	159409887	MISSENSE	GGGTGTGCCACACAGATGTT	TTTTTTGTAACCTTTGGCAT	C	G	SOMATIC	VALID
SJACT005_D	DRP2	148539558	X	100511166	MISSENSE	CACAGACCGGGAGCCAGCCT	TGGACAGCAGGCTCCATGCA	T	C	SOMATIC	VALID
SJACT005_D	COL4A4	116256356	2	227985852	MISSENSE	TGGACCCTGTGGCCCTGGTG	TCCTGGTGGACCCTGAGAAG	G	T	SOMATIC	VALID
SJACT005_D	OR51G2	52546689	11	4936494	MISSENSE	AATGGAAACATAGTGCAAGG	GTGGCAGATAGCCACAAAGC	G	T	SOMATIC	VALID
SJACT005_D	LPAR3	6912348	1	85331206	MISSENSE	GTACACCACAACCATGATGA	GAAGGCCATGAGGTTGGACA	G	C	SOMATIC	VALID
SJACT005_D	RERG	14249704	12	15370405	MISSENSE	CCCAAATATTGCCAGTTTGA	CTCCGCACTTTTAGCCATGA	C	T	SOMATIC	VALID
SJACT005_D	AK2	7524346	1	33476173	UTR_3	AAATAATATTGTGTCTATTT	TACCCCCACCCTCCAAGCAT	C	G	SOMATIC	VALID
SJACT005_D	NOVA2	5902724	19	46443292	SILENT	GAGATCTGGATGCGAGCGCC	GTCAGCTCCTGGTACTCCAC	C	A	SOMATIC	VALID
SJACT005_D	PSMB1	4506193	6	170852819	SILENT	TTATTGGAATGCTTATACAT	TGCAATTATTGATAAAAGTC	C	T	SOMATIC	VALID
SJACT005_D	TNFRSF25	-1	1	6524789	SPLICE_REGION	CACCTGGGAGGCTGGTGGGG	TGCAGGGAGATGGGGAGTGG	G	A	SOMATIC	VALID
SJACT005_D	ZC3HC1	66348045	7	129666107	MISSENSE	AGTTCGGTGATCAAGTTCAT	TTCAAGCAAGTGTAGGAGAA	C	T	SOMATIC	VALID
SJACT005_D	SKP2	-1	5	36170550	SPLICE_REGION	AAGCAGCTGTTCCAGGTATG	AAGATGTGAGACTTGATTAT	A	T	SOMATIC	VALID
SJACT005_D	GPR155	74271832	2	175337839	SILENT	AGAAAATTTTCGACATATAC	GGTACCTTTCGATCAAGAAT	A	G	SOMATIC	VALID
SJACT005_D	PCLO	150378539	7	82785347	MISSENSE	AGGAGGTTTTATGATTCCTT	AGGTTTTCCTTGCTCCTTCT	C	T	SOMATIC	VALID

SJACT005_D	FDX1	4758352	11	110333118	MISSENSE	TCTGTTTGACAAAATCTATG	ACAATATGACTGTTCGAGTG	G	T	SOMATIC	VALID
SJACT005_D	MAN1A2	5729913	1	118039592	MISSENSE	CACGTACTTGTCATGAGTCA	ATGACAGAACTGGTAAGAAT	T	C	SOMATIC	VALID
SJACT005_D	IRGQ	56090582	19	44089908	UTR_3	TTAAACAGTAAGTCTGCCCG	ACTCCTTCCAGGGTGGAAAA	C	T	SOMATIC	VALID
SJACT005_D	SRCRB4D	18152779	7	76027139	SILENT	GCGCCCCCTACCAGGCGTAC	CTGCCCTCACCTGGGGATGG	G	A	SOMATIC	VALID
SJACT005_D	LOC646999	-1	7	39649124	EXON	TTATAAGTTTATCAGAAAAT	ATGATGTTATCGAATTGGGA	G	A	SOMATIC	VALID
SJACT005_D	WDR76	-1	15	44136094	SPLICE_REGION	AAATTTAACTTTGTAATTTT	TTAGCTACAAAGCCAATTTA	C	G	SOMATIC	VALID
SJACT005_D	OR4K1	289629239	14	20404491	MISSENSE	ATTTCCTACACCATCATTTT	ATCGGTGTCCGATGCAGGTC	G	T	SOMATIC	VALID
SJACT005_D	CNTLN	110815815	9	17503217	UTR_3	GTGTATTTCTACAACTCTTT	GCAAAAACAAAAACATTTTC	G	C	SOMATIC	VALID
SJACT005_D	TMEM49	20070349	17	57915708	MISSENSE	AGCCATTTCAGGAGTACCTG	AGGCTCAACGGCAGAAGCTT	G	C	SOMATIC	VALID
SJACT005_D	DTX4	148237498	11	58973210	UTR_3	AGGAGCCCACAGCCTTCTTC	CAACTCATTCTAGACCAGCT	C	A	SOMATIC	VALID
SJACT005_D	TUT1	226371750	11	62356640	SILENT	GGCCTTTCTCGCAGCTCGTA	TTCTACCAGGTGCCGGTGCT	G	A	SOMATIC	VALID
SJACT005_D	CEP192	255003833	18	13056453	NONSENSE	GCTGGCAATGCCACAGTCTG	GGCTTCTCAGGAGGCCTTCC	T	A	SOMATIC	VALID
SJACT005_D	OR6C1	52353943	12	55714587	MISSENSE	AGAAATTTCTCCATATTAGA	ATTTCGTTCACAACCGTCAG	A	T	SOMATIC	VALID
SJACT005_D	LOC90246	-1	3	128228854	EXON	TAAGGGAAAGGAGGATGGGA	ACCCCTAGCCTGCAGCACAT	G	C	SOMATIC	VALID
SJACT005_D	RUNX1T1	28329422	8	93107865	UTR_5	AGAGAGAGAGAGAAGACAGA	AGGGACAGGCAGGAGGGAAG	A	T	SOMATIC	VALID
SJACT005_D	GREB1	23397642	2	11750822	MISSENSE	TGTTCCTTGCAGGTTCCCCC	CCTGCACAGCGCGGTGATCA	G	A	SOMATIC	VALID
SJACT005_D	IFNW1	4504605	9	21141338	MISSENSE	CAGCATCTCATGGAGGACAG	CATGACATGGGCCTTCTGCA	A	G	SOMATIC	VALID
SJACT005_D	SH2D3A	208609985	19	6753513	SILENT	CGGAATTTGGGTGCGTCCCG	ACCATGTGACGCGCCCCGTG	G	A	SOMATIC	VALID
SJACT005_D	LOC643542	-1	18	65565658	EXON	TATCCTAATGTGATCATCTT	CTACAGTGAAAATTCAAACT	C	G	SOMATIC	VALID
SJACT005_D	TRIM59	27436877	3	160156457	MISSENSE	GGATCATTTTCTCAGAATGA	ATTTTTGTTCTTTCAGCTTT	G	C	SOMATIC	VALID
SJACT005_D	PMEPA1	21361841	20	56234658	MISSENSE	CCGGCTGATGAAGGACCGTG	AGACAGCTTGTAGTGGCTCA	C	A	SOMATIC	VALID
SJACT005_D	ZNF721	119120877	4	434929	UTR_3	GGGATACAAGTACAGGTACT	GAGCCCTCTTTATCTTTGTA	A	G	SOMATIC	VALID
SJACT005_D	SRRM2	118572613	16	2816675	MISSENSE	TCGAAGTCGCTCACCACTTG	TATCCGCCGCCGCTCCAGAT	C	T	SOMATIC	VALID
SJACT005_D	ST8SIA2	5174677	15	93008468	UTR_3	AATCTAGCTGCTTTGGGTGT	TTTTAAAGCAATGTGAGTCC	T	C	SOMATIC	VALID
SJACT005_D	PMM2	4557839	16	8942693	UTR_3	TTTACCACGGAGGCGGCTGA	TGCAGCTACAGCTAGGTCCG	G	C	SOMATIC	VALID
SJACT005_D	USP3	55770886	15	63845997	MISSENSE	ACACTTACAGAACTTGGAAA	GTAAGTAATAGGCCTTTGGA	A	C	SOMATIC	VALID
SJACT005_D	ST6GALNAC3	229892273	1	77095768	UTR_3	GAACACCCCATTGGGCTATT	TCTGTGTATTCTGCTCTCTT	G	A	SOMATIC	VALID
SJACT005_D	PIK3R1	32455252	5	67594020	UTR_3	CAGTTCATGTATGTTCAGAA	AAATTCTGTCATAGAAAGTG	G	C	SOMATIC	VALID
SJACT005_D	LRP1B	93102379	2	141072609	MISSENSE	CCAACAGTGACACCTCAAAT	ACCTTTCTCATTTAAAATGC	C	T	SOMATIC	VALID
SJACT005_D	GDAP1L1	30581160	20	42907710	MISSENSE	TGTCCAAGAAATACTGGGAA	ATGGCAGCCGGCCCAACCTG	G	T	SOMATIC	VALID
SJACT005_D	FBXL16	289666746	16	743218	UTR_3	GAAAGGAGCCCTCCCTCCTC	GGGTGTCTAGGGTGTGCTGG	G	A	SOMATIC	VALID
SJACT005_D	GNLY	157502222	2	85922462	SILENT	GGTCTGGTCTTCTCTCGTCT	AGCCCTGAGTACTACGACCT	G	C	SOMATIC	VALID
SJACT005_D	RNF157	58743365	17	74140871	UTR_3	TATGGCTCTCCCTTTCCACA	GAGCGATCCTCCAGCCCTAC	G	A	SOMATIC	VALID
SJACT005_D	CCBL1	169881279	9	131598086	MISSENSE	GCGTGGGGCAGTGGAAGACG	AGTTCTGGTGCACGGTCCGC	G	C	SOMATIC	VALID
SJACT005_D	MAL	12408661	2	95713839	MISSENSE	TCATCCTGTACATAATTGGA	CCCACGGTGGAGAGACTTCC	G	T	SOMATIC	VALID
SJACT005_D	ALKBH8	-1	11	107403136	SPLICE	TTAAAATCCATGACAATCTT	AAGCAAAGATAAAAGCATAA	G	C	SOMATIC	VALID
SJACT005_D	RPL28	13904866	19	55900220	UTR_3	GGGGATGGGCTTTACTTGAT	CAACCTCATCTCTGAGATGG	G	A	SOMATIC	VALID
SJACT005_D	CNTNAP4	116284404	16	76573688	MISSENSE	TAACTTTGATTTTAAAAACA	GGCTGATGGACAACTTCACC	T	A	SOMATIC	VALID
SJACT005_D	DPYD	119943098	1	97700428	MISSENSE	CTGGAGGACGGAAGCACCAC	ATGGAGAAACTGAAGACCAC	T	C	SOMATIC	VALID
SJACT005_D	HOOK3	14165274	8	42873567	MISSENSE	CAGGCTCAGGGCAGTCATTT	TGGCGAGGCAGAGGCAAGCG	C	G	SOMATIC	VALID
SJACT005_D	ABHD6	189027141	3	58279751	UTR_3	CATGAAATCTACCATGAAGT	TTCAAGTTCATGTCACTGAG	C	G	SOMATIC	VALID

SJACT005_D	ZNF567	-1	19	37203419	SPLICE_REGION	CACCTCATCTCTGTGGGTAA	AAAAATCCTCTTTGAAACTT	G	A	SOMATIC	VALID
SJACT005_D	ZNF721	119120877	4	434773	UTR_3	CCTCTGGTTTCTTAACCTGC	GTTTCTGAACAGAGGTTTTT	A	C	SOMATIC	VALID
SJACT005_D	ERMN	58331177	2	158182045	MISSENSE	TGTAGTGTGGCAGGGGGCTG	CCACATCAGTCAATTCCTCA	T	C	SOMATIC	VALID
SJACT005_D	UGT3A2	270132412	5	36052087	MISSENSE	TTTTTCTTCCTTTTTAAAAT	TAAGAAAACAGCAACGGGTT	C	A	SOMATIC	VALID
SJACT005_D	DSG4	197313787	18	28983388	MISSENSE	TACTCTTTCAGATGGCTCTG	AAAAACAGCTACAGGAACCA	G	T	SOMATIC	VALID
SJACT005_D	ZNF385B	-1	2	180409704	SPLICE_REGION	TGGCATGTACTGCCTGCCAA	AACAAAACAAAAATGAATTC	G	C	SOMATIC	VALID
SJACT005_D	MC1R	193083134	16	89986985	UTR_3	GCAGCATCCACCCCACCCCA	CTTTGCTGCCAGCTCTCAGG	T	C	SOMATIC	VALID
SJACT005_D	SPR	4507185	2	73118694	UTR_3	TTTTTGGCTTCCTGAACCTT	TTGCCCCCACTTTTAGACAT	T	A	SOMATIC	VALID
SJACT005_D	TNF	25952111	6	31545386	UTR_3	ATTACCCCCTCCTTCAGACA	CCTCAACCTCTTCTGGCTCA	C	T	SOMATIC	VALID
SJACT005_D	HSPG2	126012571	1	22206670	MISSENSE	TGCAACCAGAGCAGGTGCCC	GGTAGGGCCCACCAGGCACC	A	G	SOMATIC	VALID
SJACT005_D	BDH1	44680136	3	197241157	SILENT	TTGGCCCTTCGGATGAGGGG	AGAAAGGATTTCGTCATCCG	G	A	SOMATIC	VALID
SJACT005_D	HIF3A	23065535	19	46845236	UTR_3	AATAACCAGTTCTTCTAGAA	CAGACGATGCTCTAGTTCTC	C	G	SOMATIC	VALID
SJACT005_D	PVRL2	5360210	19	45382188	UTR_3	GAGTTAATAAATGCCTTGGA	GAAAACATCAGGGGTGTCTT	G	A	SOMATIC	VALID
SJACT005_D	TM4SF20	188528611	2	228228189	UTR_3	GGATGACTTCCGTTCCTTCT	ATCCTCCTTCCCTTCTCCTT	C	T	SOMATIC	VALID
SJACT005_D	NCRNA00293	-1	8	47766687	EXON	CATCTAGGTTATGTGACTCT	TTCTCCTGCCTGAACCCTGC	C	G	SOMATIC	VALID
SJACT005_D	MKNK2	-1	19	2039016	SPLICE_REGION	CGGGTGAAGGGCTGGGGGAT	CCATGGGGTGGGTGGGTGAG	C	T	SOMATIC	VALID
SJACT005_D	ZNF483	190014620	9	114289906	NONSENSE	AGTCAACTCTGGGAGCTCTG	AATCAGTGGCTGAGACCAGA	C	A	SOMATIC	VALID
SJACT005_D	MRVI1	148728182	11	10595556	UTR_3	TCTTTACCTTAATGGCACAT	CTTGATCAACCCTGGCTTGG	C	G	SOMATIC	VALID
SJACT005_D	LOC283335	-1	12	53438771	EXON	CCCTTTTCCAATTCCTTGGA	CCTCTAAAGTTCTTCCCATG	A	C	SOMATIC	VALID
SJACT005_D	CMTM2	21389567	16	66613766	MISSENSE	ATAAAGAGTTCTGGCTCTTG	GGCACGCTGAGATCAAGATT	G	T	SOMATIC	VALID
SJACT006_D	CXCL5	4506849	4	74861740	UTR_3	AGCAAAAATAGAAATTCACA	CCATTAATTACCTAGGTTTG	A	G	SOMATIC	VALID
SJACT006_D	CTNNB1	4503131	3	41266104	MISSENSE	ACAGTCTTACCTGGACTCTG	AATCCATTCTGGTGCCACTA	G	A	SOMATIC	VALID
SJACT006_D	GNAS	117938765	20	57484421	MISSENSE	TCAGGACCTGCTTCGCTGCC	TGTCCTGACTTCTGGAATCT	G	A	SOMATIC	VALID
SJACT007_D	VDR	63054845	12	48238341	UTR_3	TGAGGTCTCAAGGGACCGGG	AAAAGCCCGCAGGAAAGGGG	G	A	SOMATIC	VALID
SJACT007_D	MATN2	-1	8	99048954	SPLICE_REGION	TGGTCAAACTCAAAACAAAG	TGACTTTAAAAAGAATGACA	A	G	SOMATIC	VALID
SJACT007_D	ZNF563	21687237	19	12444470	UTR_5	GTCTAGAGCTGAGCGCAGGG	CGTGAAGACGCCGCGGGCTC	G	A	SOMATIC	VALID
SJACT007_D	LRRC40	21361633	1	70671259	UTR_5	TCCAGAAGCTGCAGCCCCAC	CGTGACGCTTAAAGGTGGCG	C	G	SOMATIC	VALID
SJACT007_D	PLEKHO1	20149626	1	150131712	SILENT	AGTCAGTACCGGAAGAGCCT	ATGTGAGGGCAGGGTGGGGT	G	A	SOMATIC	VALID
SJACT007_D	BCAP29	-1	7	107253886	SPLICE_REGION	TCTGAACTTCAGGTGGGTGT	ACATGCACTTTATGCACCTA	G	A	SOMATIC	VALID
SJACT007_D	SLC7A1	4507047	13	30085682	UTR_3	GTGTAGAGGCCTGGTCTCCT	CGGACGGTGCCCCTCCCAAC	C	T	SOMATIC	VALID
SJACT007_D	OR10H4	52218834	19	16060212	MISSENSE	GGCCATCTGCCACCCACTGC	TTACAATGTGCTCATGAGCC	G	A	SOMATIC	VALID
SJACT007_D	CD96	38683840	3	111368735	UTR_3	GTGCTTTATTAATATAGTCG	TCTTCAGCCATGCCTTTGCT	C	T	SOMATIC	VALID
SJACT007_D	IFNAR1	46488932	21	34715884	MISSENSE	CAGACATAAAATTTATAAAC	CTCACCAGAGACTACTTATT	T	G	SOMATIC	VALID
SJACT007_D	HDX	294489218	X	83574333	UTR_3	AGCTGATAATTTTTCCTGCT	TAACATATCTCAAAACCAAC	C	T	SOMATIC	VALID
SJACT007_D	XIRP2	-1	2	168096483	SPLICE_REGION	TGGAACAGAAATGGTAACTA	TTAGAAAGGCAGTACTTTCA	T	C	SOMATIC	VALID
SJACT007_D	ZNF493	222418654	19	21590554	UTR_3	TTTTTATGTGTAAGATTATA	GTTCCTCAAACAGCAACTTT	T	C	SOMATIC	VALID
SJACT007_D	KIAA1984	289547545	9	139694521	MISSENSE	GCACAACCTACTGATCCACC	GGTGCGGCGGCGCGGGCAGA	T	G	SOMATIC	VALID
SJACT007_D	HECA	7706435	6	139488059	MISSENSE	TCTTAAAGAACGCCATCCAT	TGGAGCCTCACAAGAAGGCC	C	G	SOMATIC	VALID
SJACT007_D	SLCO1A2	19913403	12	21421126	UTR_3	CCTGCTTTCTGTCCAGCTAC	AACTCACACTTTGAACTGGC	C	A	SOMATIC	VALID
SJACT007_D	MYH14	224831241	19	50813743	UTR_3	CTCTGGGACTAAAGGAGTGT	CTTTACCCTCCCAGCCTCCA	C	A	SOMATIC	VALID
SJACT007_D	CEBPG	4502769	19	33870315	MISSENSE	GCAGAGCAAAAAGAGTTCGC	CATGGATCGAAACAGTGACG	C	A	SOMATIC	VALID

SJACT007_D	KRTAP4-1	15082222	17	39340812	SPLICE	TGGACGGCAGCAGCTGGACA	ACCACAGCTGGGGTGGCAGG	T	C	SOMATIC	VALID
SJACT007_D	XAF1	40288191	17	6661520	MISSENSE	CCAAGGAAACCATGGAGGAG	ACTGCAAGCTTGAGCACCAG	C	A	SOMATIC	VALID
SJACT007_D	FAM151B	45387931	5	79837516	SILENT	AGCCTGACTATTTGGACTGG	AAAAATGATAACTATTCCGT	A	T	SOMATIC	VALID
SJACT007_D	SPSB2	14249178	12	6981994	SILENT	TCTTCCAAGCCCTCGGGACA	GAGAGGTCAGGGTACAGGGC	G	T	SOMATIC	VALID
SJACT007_D	C5orf27	-1	5	95195703	EXON	ATTGAGGGGAAGATACATCC	TAAGAAGTTCCCTGAACCCC	C	T	SOMATIC	VALID
SJACT007_D	METRNL	52345387	17	81043061	MISSENSE	ACGGGGACGGCAGGCCCGGC	GGGTGCAGTGTTTTGGCCTG	C	T	SOMATIC	VALID
SJACT007_D	FAM63A	31377841	1	150969582	UTR_3	CCTGGATGGGAGGCAGAGAA	GCAGCAGCACGTGAGGTCAA	G	A	SOMATIC	VALID
SJACT007_D	ATRX	20336209	X	76778822	NONSENSE	GTCCAAAAGAGAATCATGTT	ATGGTATCCTACAATGTGTT	C	A	SOMATIC	VALID
SJACT007_D	SIRPB1	144953876	20	1552541	SILENT	GGGTCCACGTTGGTCTGGAA	TCTGAGAGCTCATTCCCATT	G	A	SOMATIC	VALID
SJACT007_D	OSBP2	13540513	22	31302720	UTR_3	TAGAAAAATGATCTCCATTT	TTTCCAGCCATGATGTTTAG	C	A	SOMATIC	VALID
SJACT007_D	DNAJC21	68077168	5	34956831	UTR_3	GTTGAGTGGAGTTATGTGTC	CTTTTATTCGGATTGACGAA	G	A	SOMATIC	VALID
SJACT007_D	NEDD1	23097254	12	97345847	UTR_3	TTTGAAATTTCAGTGAATAC	TTAATGTTCTGTAATTTGGG	C	T	SOMATIC	VALID
SJACT007_D	LY6D	-1	8	143866995	SPLICE_REGION	CCCAGGGACACCTGGACAGA	GCTACCCACCTGTGTTCGTG	T	A	SOMATIC	VALID
SJACT007_D	DBF4	5729734	7	87533677	MISSENSE	AGTTGTTGATGATATTGTAT	TAAGTTAGTTTTTGACTTTG	C	G	SOMATIC	VALID
SJACT007_D	SLAIN1	93141208	13	78327413	MISSENSE	TAGTAGCAACATTAGTTCTC	GGTCACCGTGCGAAATAGTC	C	T	SOMATIC	VALID
SJACT007_D	SLX4	63252863	16	3642784	MISSENSE	GATAGTGCAGGAACGTGCGG	CGGCCTCGGTGCTCACGTCA	G	A	SOMATIC	VALID
SJACT007_D	PTPN14	34328899	1	214560252	MISSENSE	GAACGGGAGGCAGGATGTAC	GCTGCTGCCTGGGCTGAAAC	G	A	SOMATIC	VALID
SJACT007_D	FRY	-1	13	32735395	SPLICE_REGION	GACTTACTGGCTAGGTAGGT	AGAATATTATTTGGCCAAAA	G	T	SOMATIC	VALID
SJACT007_D	CPEB4	189027090	5	173316306	UTR_5	CTAAACTGCTGAGGAAAACC	TATGTGATTGTTAAATTATA	A	G	SOMATIC	VALID
SJACT007_D	KCNQ1OT1	-1	11	2665107	EXON	TGCTAAGTACAGTATTCCTG	CTGGCAGGTTTTTGGTTTTG	G	A	SOMATIC	VALID
SJACT007_D	PRR16	7706194	5	120022434	UTR_3	TTAAAAAAATTGTTTTTTTA	TTTTCTATATTATAAACATA	A	G	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454265	UTR_3	ATTCTCTGTATAAAACTTAG	TCTAAAGCAGAAACTAAAGC	C	G	SOMATIC	VALID
SJACT008_D	ASB5	18254476	4	177136077	UTR_3	GAAGGTGTGTAATGTTCTAA	TATCTCAGGGTGAGAGGGCA	A	G	SOMATIC	VALID
SJACT008_D	ZNF398	24308225	7	148876276	MISSENSE	ATTGCCCCAAGCGCTTTGCT	ACCAGGCTCGACTCACCAGC	G	A	SOMATIC	VALID
SJACT008_D	KIAA1244	154350241	6	138576613	MISSENSE	TCATCGTGATCTTGGGGAAT	CAATTCATGACAAAACCATC	C	G	SOMATIC	VALID
SJACT008_D	ZNF134	148539940	19	58133255	UTR_3	AGTACTTGCCTCATGTTGCT	TGGTTTGTGATAATAAAGGC	C	T	SOMATIC	VALID
SJACT008_D	PRMT1	154759421	19	50183180	MISSENSE	GCCTCCAGCCGCCTCTTGAA	AAGTAAATATCCTTTTGTGA	G	A	SOMATIC	VALID
SJACT008_D	LOC645434	-1	6	139790234	EXON	TTTAGAGTACAAAGACATTT	AAAATAATGCAAATAACAAA	C	G	SOMATIC	VALID
SJACT008_D	VPS8	57863275	3	184570340	MISSENSE	CGACAGCGGAGGCTCTGTTT	TGAATTGACATTTAAGTAAG	T	G	SOMATIC	VALID
SJACT008_D	PCDHB5	7661662	5	140515803	MISSENSE	CCCTTAACTCCTTAGTTGTC	TTGTCTCCGCTCGAGATTTA	G	A	SOMATIC	VALID
SJACT008_D	HCFC1	98986457	X	153225490	MISSENSE	GGCAGTAGCAGCCGTGGCAG	AATGTCATATTTCTGGAGCT	G	T	SOMATIC	VALID
SJACT008_D	ZNF606	31377839	19	58490157	NONSENSE	AGCCATCTGGCTACAGGATT	TCCACATTTATTACATTCAT	T	A	SOMATIC	VALID
SJACT008_D	TDRD6	58197558	6	46670902	UTR_3	TTGGAATGCTTATTTCTAAA	TGAATAGGGAAAAGGTTTGC	A	G	SOMATIC	VALID
SJACT008_D	PCDHB14	9256608	5	140605379	NONSENSE	CAAATGAGTTCAAATTTCTG	AGCCGATTATCCCCAATTTT	A	T	SOMATIC	VALID
SJACT008_D	MBNL3	282721006	X	131507707	UTR_3	TGCTTAACCTTTCTAACCTT	ACCTCTTCTAGGCCTCATTG	G	C	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454664	UTR_3	AACTTATACGACCTGATTTC	TTAGGACGGAACCGCAGGCA	C	T	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454324	UTR_3	GTCTCGCCATCCTCAAGACT	AGCAGCTCTCATTCTCCAGT	C	T	SOMATIC	VALID
SJACT008_D	CDC23	118402596	5	137524508	UTR_3	CCTGCCAGGATTCTGTCAGT	GGCCTCTGAAGGTAATTATA	T	A	SOMATIC	VALID
SJACT008_D	DCK	4503269	4	71892392	MISSENSE	TTTTAAACAGAACCAACTTC	ATTATCTTCAAGAGGTGCCT	G	A	SOMATIC	VALID
SJACT008_D	ZNF134	148539940	19	58133313	UTR_3	ATTTAATCTTGGGGCTTCTT	TTATGGTCTGGGGTGGATTG	C	T	SOMATIC	VALID
SJACT008_D	CHEK2	54112407	22	29091842	MISSENSE	AGGTCTCTCCCAAAATCTTG	AGTGCCCAAAATCAGTAATC	G	C	SOMATIC	VALID

SJACT008_D	LOC79015	-1	20	43287829	SPLICE_REGION	CAAGGGCCTTCTTGCTGCAT	ATTCCATGGTAGAAGATGAG	C	T	SOMATIC	VALID
SJACT008_D	ALPK1	156151443	4	113363004	UTR_3	TACAGTTTTCTTTATCCAGT	TGTCCTTGATGGGCATTTAG	C	G	SOMATIC	VALID
SJACT008_D	IFNAR1	46488932	21	34728622	UTR_3	ATATTTCAAACATTTGGTCT	TTCTTTTAACACTGAGGGTA	T	C	SOMATIC	VALID
SJACT008_D	JAKMIP2	45237195	5	147040830	MISSENSE	CTCCATCACGTACCTTCACC	TCCTTGACATTTCCTGCTCG	G	A	SOMATIC	VALID
SJACT008_D	SMOC1	-1	14	70442536	SPLICE_REGION	ACTCCTGTATGTTCAGGTAC	GTAGGGAGGGGCGGGAAGAA	C	T	SOMATIC	VALID
SJACT008_D	LOC645434	-1	6	139790202	EXON	GTTTTCCACAATTATGCATT	TTTTACCAGCCTTTAGAGTA	C	G	SOMATIC	VALID
SJACT008_D	HIP1	38045919	7	75166138	UTR_3	CCGGGCAGAAAGATGAGCCT	GCTAGAGTCACACCTGAAGT	T	A	SOMATIC	VALID
SJACT008_D	AQP9	157266307	15	58476165	MISSENSE	CTTGTTTGATTTCAGAGCTG	AAACAACTTCTGGTGGATTC	G	C	SOMATIC	VALID
SJACT008_D	NLRP7	187937176	19	55445070	MISSENSE	AACCAAGACAGCAGCAAGGT	CTTGCAACTGGCTTCTGTAA	C	A	SOMATIC	VALID
SJACT008_D	ZNF536	7662092	19	31040412	MISSENSE	CTGGATGTATCAAGAGGCCA	ACTTGTGTGGTAAGTTTTAG	G	A	SOMATIC	VALID
SJACT008_D	SPO11	6912680	20	55910907	NONSENSE	TAGAAAAAGATGCAACATTT	AGCGGCTCCTAGATGACAAC	C	T	SOMATIC	VALID
SJACT008_D	GNAI2	261878575	3	50296108	UTR_3	CTCCCAAGGCTGCGTCTGGA	GGGCCCCTGCTTCTCCAGCC	G	A	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454317	UTR_3	GAAGGCTGTCTCGCCATCCT	AAGACTCAGCAGCTCTCATT	C	T	SOMATIC	VALID
SJACT008_D	LOC100306951	-1	17	1421006	SPLICE_REGION	AAATAAATGTTTTGCTTGTT	GGTAGGGTGGATAAAGAGGA	T	G	SOMATIC	VALID
SJACT008_D	ESRRB	238550159	14	76905998	MISSENSE	GCTCAACGCCATCCCCAAGC	CCTGTGCCTCGTGTGCGGGG	G	A	SOMATIC	VALID
SJACT008_D	AKAP6	21493045	14	33046391	SILENT	GCCATGGAAACTACAGAAAA	TGGACTCCCCCTAAAGCAGA	T	C	SOMATIC	VALID
SJACT008_D	TANC2	157739945	17	61503604	UTR_3	CTCCTCTTCCTCTAGGAATT	CAGACCGACCATCTACCATG	C	A	SOMATIC	VALID
SJACT008_D	RSPH3	31543559	6	159398424	UTR_3	ATTCTCAAATTAATTTTATC	CATTTGATTGGCCCAGTCCA	A	G	SOMATIC	VALID
SJACT008_D	NHS	209862849	X	17753884	UTR_3	GTAATATTTGTAAATATGAA	TTTTTAAATTGCTGCAAAGA	C	G	SOMATIC	VALID
SJACT008_D	ZNF772	66841380	19	57982161	UTR_3	ACTTAAATAAAACAGAAAAA	TCCTTGAAAGACACAAACCA	C	T	SOMATIC	VALID
SJACT008_D	SEC24C	38373669	10	75529218	SILENT	CGAAACTGTGAGACTGACAC	CTCATCAACTACATGGCCAA	G	A	SOMATIC	VALID
SJACT008_D	RALYL	154240692	8	85833348	UTR_3	GTACAATTGTCAGGTTTTTA	GGTTTAAATTGTAAATGTGT	T	C	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454164	UTR_3	AGCATCTTCAGTCAGATTAT	CTCAGTTTCAGATACTTCAT	C	A	SOMATIC	VALID
SJACT008_D	ZNF772	66841380	19	57982536	UTR_3	TCTTCCAGAGAGCTGAAGAG	AGGAATACTTCCCAACTTAC	C	T	SOMATIC	VALID
SJACT008_D	NFASC	89903008	1	204988848	UTR_3	AGGGAGAGCTTGGTCCATCT	GTCACCAAGGCTGGGCGGGA	G	T	SOMATIC	VALID
SJACT008_D	EP300	50345997	22	41575710	UTR_3	AGCTGCCAAATTGATGTATT	TATATTGTGGTTTCTGTTTC	A	C	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454625	UTR_3	ACTGAGATTAGTCGTCAGAT	TCTCCCCGTCTCCCTCCCAA	C	T	SOMATIC	VALID
SJACT008_D	CCDC28A	27414491	6	139106381	MISSENSE	AAGGAAATGAATGTTCCATT	AACAGATGGAACATGTTCGG	G	A	SOMATIC	VALID
SJACT008_D	SCAI	221554543	9	127705507	UTR_3	AGTATAATTTTCCCCTTAGT	ATTGGTAGTAAATAGCCCCT	C	G	SOMATIC	VALID
SJACT008_D	LOC390595	254939613	15	65385557	SILENT	GAACTGCTCCCAGAGGCGCA	GAACTCCCCTGCCTGAGGAA	G	A	SOMATIC	VALID
SJACT008_D	SHBG	-1	17	7534508	SPLICE_REGION	CCTCTGATTTTGCTTCCCAC	TTCCTGCAGGTGGAAGTCAA	C	T	SOMATIC	VALID
SJACT008_D	ZNF134	148539940	19	58133300	UTR_3	CAGTTTAAGCCACATTTAAT	TTGGGGCTTCTTCTTATGGT	C	G	SOMATIC	VALID
SJACT008_D	PDE4B	82799484	1	66839667	UTR_3	TATACTGAGCTTTTACTTTT	TATAGCTTGATAGGGGCAGG	G	T	SOMATIC	VALID
SJACT008_D	HEBP2	7657603	6	138734325	UTR_3	GTCTTCTATTGAGAGTACTA	TATTAATTAAGCTTATTTCC	C	T	SOMATIC	VALID
SJACT008_D	SAP30BP	9994179	17	73702541	SILENT	ACGGTCACCACCAGCGCCAG	GGCTCCAAGACCACCGTCAT	C	T	SOMATIC	VALID
SJACT008_D	STRN4	89886480	19	47223482	UTR_3	ATCCCCAGGCTGGATGCTTG	GGAAGGCAGCCGTTGGGGAG	G	A	SOMATIC	VALID
SJACT008_D	SPO11	6912680	20	55910869	MISSENSE	CACAGATTTAGTTACAGATG	AAAGTTTGTATTAATTGTAG	C	T	SOMATIC	VALID
SJACT008_D	ABCC4	157502201	13	95673316	UTR_3	ATGTCACAAACTTTTTCTTT	TGTTGTTCCTATTGGTTGTA	T	C	SOMATIC	VALID
SJACT008_D	ILDR2	40786420	1	166883396	UTR_3	AAGAAAACGAAACTCTCCTT	AGTGAAGCTACAACTCCCTC	G	T	SOMATIC	VALID
SJACT008_D	USH2A	219842266	1	216019237	MISSENSE	CATTGAAGACAGAGATAAAG	TCCAATACTCTGTGTTTGGC	A	T	SOMATIC	VALID
SJACT008_D	CHDH	217272839	3	53850610	UTR_3	GACGTCTACAGAATAAGAAT	AACCATCCTTGTCCACTGCT	T	G	SOMATIC	VALID

SJACT008_D	DUSP13	56237018	10	76863692	UTR_5	GGCTGAGAGGGGGTGTAGGC	CCAGGAGGAGCCAGATGGAG	G	A	SOMATIC	VALID
SJACT008_D	STAG3L2	148226757	7	74306654	UTR_5	ACCAACGCTCGGAATACACG	CAGACCACGACGGAGGGCGA	C	A	SOMATIC	VALID
SJACT008_D	FCRL4	14550416	1	157545257	UTR_3	AAGGACTGCACTGGGCCTGG	ACTTTGGACAAGGGAGAAAT	G	A	SOMATIC	VALID
SJACT008_D	ATAD2	24497618	8	124357237	MISSENSE	GGCTTTAAGTGTCGGTCCAA	TATTTCCCACCACACGTGGA	C	A	SOMATIC	VALID
SJACT008_D	GRAMD1C	285403096	3	113664451	UTR_3	TCATTATTGAGATTTCTAAT	TGAACATTTCTTTCAGTAAC	A	G	SOMATIC	VALID
SJACT008_D	B3GALT5	15451883	21	41033168	MISSENSE	TTTCTGGCGACGTGGCGAGT	AGGTGTACAATGTCTCCAAG	C	A	SOMATIC	VALID
SJACT008_D	ZNF37BP	-1	10	43012399	EXON	AGTTTATGGATATGACTAGA	TTTTTTTTTCAATTTTAGGA	C	A	SOMATIC	VALID
SJACT008_D	TMTC2	22749211	12	83424581	MISSENSE	TTCTCTGTTTTTCAAGGGTC	TAAGAGTGAGGCTGAAAAGC	G	C	SOMATIC	VALID
SJACT008_D	GPATCH1	21361684	19	33603424	SILENT	GATAAGCAGTCGGCTGTGAA	ATGAAGATGTTTGGGAAGCT	G	A	SOMATIC	VALID
SJACT008_D	CRTAP	5453601	3	33188990	UTR_3	ATCCCCTTGGAGCTGGCCGG	AAGATATTAGTGCCTCATTT	T	C	SOMATIC	VALID
SJACT008_D	LOC645434	-1	6	139790288	EXON	AAATGGCAGTAAAAACACTT	AAAGAGTTTCCCTTGGAGAA	C	G	SOMATIC	VALID
SJACT008_D	C14orf106	42415492	14	45711522	MISSENSE	ATACAATTAGTACTGAGAGT	TCAGCATTAGTATTTTGAAA	C	A	SOMATIC	VALID
SJACT008_D	SAMD13	197927255	1	84815794	UTR_3	CAAAATCTTTTAAAAAAGAA	TTAATTAAATGACAGTCTTT	T	G	SOMATIC	VALID
SJACT008_D	DPYSL3	308818200	5	146781125	MISSENSE	GGCCAGCAAGGAGTTGATGT	GTCCGGAGTAGTTGGGTCAG	A	G	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454597	UTR_3	TTCTCAAGGCTTTGAAATCT	CCCTTGCACTGAGATTAGTC	C	T	SOMATIC	VALID
SJACT008_D	HEBP2	7657603	6	138734234	UTR_3	GAGAAAAATGAAAGGAAGTT	TGCTGTCAGAGGCAAAACAT	C	A	SOMATIC	VALID
SJACT008_D	SLC6A2	289191351	16	55729202	SILENT	TCCCCCAGGGATGCCCTGCT	ACCAGCAGCATCAACTGTAT	G	C	SOMATIC	VALID
SJACT008_D	OPRM1	-1	6	154431515	SPLICE_REGION	AGATTTATTTCAAAAGTCAT	TTTACTCAACTGTGAGCATA	C	T	SOMATIC	VALID
SJACT008_D	ZMYM3	4827067	X	70460710	UTR_3	CTGGGCCTGTCACCCTGAGG	ACATGGCCACAGGACAGACA	G	C	SOMATIC	VALID
SJACT008_D	ADH1C	4501933	4	100257699	UTR_3	TTCAATTCCCCAGTTGATGT	CAACACTTTATTTAGTTCTC	T	C	SOMATIC	VALID
SJACT008_D	CD209	223029386	19	7804985	UTR_3	GGGCAGATTTTATATACAGA	GGTAGTGAGGCATGATATGA	G	T	SOMATIC	VALID
SJACT008_D	ZNF836	156627573	19	52660294	SILENT	TTACACATATAAGGTTTTTC	CTAATGTGTGTTTTCTCAAG	C	T	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454530	UTR_3	CGCCACCTCCGCCTCCCTTT	AGAGCCTGCTCCCCGCCCTC	C	T	SOMATIC	VALID
SJACT008_D	XRN2	18860916	20	21312974	MISSENSE	AACCGAACTTTACCATTATT	GAGAAGAATTCAAACCAAAC	A	G	SOMATIC	VALID
SJACT008_D	SNX8	23943858	7	2292682	UTR_3	CTCCTGCCCTCCTGCTCCCT	CTCACCCCTGCCCTCCAGCC	C	A	SOMATIC	VALID
SJACT008_D	OLFML2A	116014339	9	127574573	UTR_3	CCTCAGCCTCCCTAGTAGCT	GGACTACAGCACCCACCACC	G	T	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454718	UTR_3	TCTTACTCCCGCTGCTTGTT	TGTCCCCTCCCTCGGACCAA	C	T	SOMATIC	VALID
SJACT008_D	RUFY2	109240552	10	70137290	UTR_3	TGTGTGTGTGTGTGTGTGCA	GTGTGCATATATGTTTAAGA	C	T	SOMATIC	VALID
SJACT008_D	ARHGAP27	40548322	17	43472162	UTR_3	GCAAGGTGTGCACTTGGTGA	TGGGAAGAAGCCTTGCACAG	A	C	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454182	UTR_3	ATCCTCAGTTTCAGATACTT	ATAATACCTTGTGTTGTGTG	C	T	SOMATIC	VALID
SJACT008_D	COL9A1	73486666	6	70981773	MISSENSE	TGAAGTGATACTTACAGGGG	TCCAGGAATACCACGGCCCT	G	A	SOMATIC	VALID
SJACT008_D	CCDC123	50083293	19	33409167	MISSENSE	TGGTGGCTGTCCTTGGCTTT	CTTTGCTGAATCTCCAACTG	C	G	SOMATIC	VALID
SJACT008_D	C10orf108	-1	10	697619	EXON	TCACGTCCCCCAAATTTTCC	TATCCCAAAATCTGGACTTT	G	A	SOMATIC	VALID
SJACT008_D	USP6	109638751	17	5077220	UTR_3	TCTTTTCTGTGTTTGTTTTG	ACTTTAAAAAAGAGAGAACA	C	A	SOMATIC	VALID
SJACT008_D	CCDC123	50083293	19	33409179	SILENT	TTGGCTTTCCTTTGCTGAAT	TCCAACTGCTCCAGCAACAA	C	T	SOMATIC	VALID
SJACT008_D	TMOD2	7657647	15	52107497	UTR_3	ATATACTATCTTGCTCCTCA	AACCAGTGGGGAAGAAGAGG	G	A	SOMATIC	VALID
SJACT008_D	GPR144	240120161	9	127239310	SILENT	AAGGAGCACAGCCTGCCTTT	TCTGTCCTCCCCCTCTTTCT	C	T	SOMATIC	VALID
SJACT008_D	FLJ14186	-1	4	120329475	EXON	GAGAGTCCATTTTTTAGCAT	AGCTGGGCCTAAAGAGACCA	A	G	SOMATIC	VALID
SJACT008_D	ZNF462	114431236	9	109689278	MISSENSE	CTTTGGTCAACACTGTTGTT	TTTATGATTGTGATGTTTGT	G	C	SOMATIC	VALID
SJACT008_D	BRWD1	16445436	21	40622799	NONSENSE	CTCTTCACCTTTCTCTAATC	GAAGTCTTCCAGCTTCCTAC	G	A	SOMATIC	VALID
SJACT008_D	C6orf218	-1	6	10430465	EXON	AAAAACTCATGAATGAACTT	CTGTTTCATCACTCGAATCC	C	T	SOMATIC	VALID

SJACT008_D	OBSCN	-1	1	228482747	SPLICE_REGION	CCACACTCACCGTCAGGGGT	AAGACCACATGTGGCCACCT	A	G	SOMATIC	VALID
SJACT008_D	STXBP1	4507297	9	130454790	UTR_3	GAAGATGTTGGTTTCCCTTT	TCTGTTATTTATATAAAAAT	C	T	SOMATIC	VALID
SJACT008_D	MAP3K5	-1	6	136883756	SPLICE	ACCAATTCTTCCAGTAATCT	CAGAAGAAAAATATATTGTT	G	A	SOMATIC	VALID
SJACT008_D	HSPB7	7657202	1	16341389	UTR_3	GGCCCCAGCAGGCGCAGGAC	GCAGGAGTTTCATGCAGTTT	G	C	SOMATIC	VALID
SJACT008_D	HDAC9	30795202	7	19015561	MISSENSE	GGATGTGGAACAGCCCTTTG	TCAGGAAGACAGCAGGTATG	C	G	SOMATIC	VALID
SJACT008_D	ZNF462	114431236	9	109625635	UTR_5	CCGGCGCCGGGACGCTTCTT	TGTAAGTTACTGCAATTAAC	C	T	SOMATIC	VALID
SJACT008_D	LOC390595	-1	15	65385578	SPLICE_REGION	GAACTCCCCTGCCTGAGGAA	AGGAGACAGGGAGGGTGCTG	G	A	SOMATIC	VALID
SJACT008_D	ARHGAP30	71040096	1	161026197	MISSENSE	CAGCAAACTTGTCATAGAGC	GGTAAGTGAGCAGGGGATCC	C	G	SOMATIC	VALID
SJACT008_D	RAD17	19718784	5	68682024	MISSENSE	TAGGAAGTATGTGAGGATTG	TCGATGTCCTCTTATATTTA	G	A	SOMATIC	VALID
SJACT008_D	NCALD	98985787	8	102899442	UTR_5	AGATTTTAACACCAGGAGAT	AGATGCCTTGCAACTGAGAT	C	G	SOMATIC	VALID
SJACT008_D	ATP11B	62632750	3	182638001	UTR_3	TGGTGCTTAAAGTGTGATTG	TGTAATTTTCTGTACTCACC	A	C	SOMATIC	VALID
SJACT008_D	ZBTB24	256600206	6	109783964	UTR_3	ATCCCAAGGCAGACCCTCTT	TGGGAGAAAACCAAAGATTC	C	G	SOMATIC	VALID
SJACT060_D	CD2AP	11321634	6	47593655	UTR_3	TGAACAAAATTGTTCCCTCT	CTGTTAAATAGAATAGGTTT	T	G	SOMATIC	VALID
SJACT060_D	TRAPPC6B	28976154	14	39639483	UTR_5	GGTACTGAAATGAGTCTGGT	CTGGAGAGAGCCCACACTTC	A	G	SOMATIC	VALID
SJACT060_D	IQCF6	254028213	3	51812648	SILENT	CTGTCAGCGCCCTAGGTCAT	AGGATTTCGATGTCAAGCTC	G	A	SOMATIC	VALID
SJACT060_D	CTNNA3	188497716	10	67863005	SILENT	ACATCCTCCAGTTCCTCTGG	GTCTATAAAAAGAAAGCAAA	G	C	SOMATIC	VALID
SJACT060_D	MKI67	103472005	10	129902110	MISSENSE	TTTCCTTAGGTGCTCTTGGC	TTCTCCTGCTGGGTTCCTCT	C	T	SOMATIC	VALID
SJACT060_D	GPR37L1	134244291	1	202097986	UTR_3	TTGCCTGCCCTCCCTTGGTT	CAGTCTCTCTTCTCTCTCTC	C	A	SOMATIC	VALID
SJACT060_D	KRT27	153945736	17	38936596	MISSENSE	AGCGAGCTCCTCACTGAGAG	TTCCAGCTGGATCTCCAGGT	T	A	SOMATIC	VALID
SJACT060_D	ADIPOQ	4757760	3	186570987	MISSENSE	GGCGGGCATCCCAGGGCATC	GGGCCATAATGGGGCCCCAG	C	T	SOMATIC	VALID
SJACT060_D	PPP1R3A	167614502	7	113519298	MISSENSE	TCCAGTTCTTGATGAACAAA	TTGACCAGTTATCCCTCCTA	C	T	SOMATIC	VALID
SJACT060_D	NLK	149408126	17	26488182	SPLICE_REGION	CTCTCCTTAACTTAAAACTT	AAGATATGTTGTCACAGAAT	C	G	SOMATIC	VALID
SJACT060_D	FLJ32224	-1	1	43448888	EXON	TCTGGGATTACAGGCATGAG	CACTGCACCCAACCTGAATA	C	G	SOMATIC	VALID
SJACT060_D	FAIM2	34101290	12	50282952	MISSENSE	GAAAAGAGTCATGAGAAGCA	GAAGAGCACGCCCTGGCAGG	C	T	SOMATIC	VALID
SJACT060_D	EFR3B	190684710	2	25377672	UTR_3	CCTCCCCAGCACTCCCCCTG	TCCCCGCCCATGTCCCTGCT	C	A	SOMATIC	VALID
SJACT060_D	EBF4	160333411	20	2686677	MISSENSE	ACCGCCTCCGGCTGGTGTAT	ACAATGGTGAGTGGAGGCCC	A	G	SOMATIC	VALID
SJACT060_D	USH1C	71480164	11	17522679	MISSENSE	GTCCACACCGCCTTCCAGGG	CAGGTCTAAGGATCCCTCCT	C	A	SOMATIC	VALID
SJACT060_D	GPM6A	42476105	4	176555428	UTR_3	AGAACATCAAGGAAAAGTAC	ATGTTAACAAAGATAAGAAG	A	G	SOMATIC	VALID
SJACT060_D	NLK	149408126	17	26488236	MISSENSE	CCTACATAAAATTATCGTCT	TCCTCAACCACTCAGCTCAG	C	G	SOMATIC	VALID
SJACT060_D	VCP	6005942	9	35061093	MISSENSE	TCTAGGTCAATGAGATCCAT	TTCTTGCGGATGGCTTGCAG	C	G	SOMATIC	VALID
SJACT060_D	CAMK4	4502557	5	110820647	UTR_3	GTTCAAACTGTTTACAAGGA	ATGCTTATAGATGATAGTTG	G	C	SOMATIC	VALID
SJACT060_D	ANP32E	210147571	1	150192359	UTR_3	TTTTCCTTCAAAAATAAAAT	TTATCAGTCACCACTAAATC	C	G	SOMATIC	VALID
SJACT061_D	TRIP11	190194412	14	92491726	MISSENSE	ATCTCTGATGCTTCATGTTT	TCTTCTAGATCAGTACAAAG	C	G	SOMATIC	VALID
SJACT061_D	ERMN	58331175	2	158178073	MISSENSE	ATTGCAATTATCATCATCAT	ATCATCAATTTCTTCATCCC	C	T	SOMATIC	VALID
SJACT061_D	CLCA4	150036262	1	87012803	MISSENSE	GGAATAACTAGAGAGGAACA	TGGGGTTATTCAGAGGTTTT	A	C	SOMATIC	VALID
SJACT061_D	SLC30A6	21687224	2	32422888	MISSENSE	GTATTACATATATGCTCATT	AAATTAAGTGAGTATTTTTT	G	C	SOMATIC	VALID
SJACT061_D	NGEF	166197688	2	233756191	SILENT	AGCTCCCGGAAAGCTGCCTT	TCCTGGCTGGGGACACAGAC	C	T	SOMATIC	VALID
SJACT061_D	ANKRD57	54607077	2	110374292	UTR_3	TTCAGTTTTAATCACTGAAC	AAAGAAACAGGCAACATTCA	A	G	SOMATIC	VALID
SJACT061_D	ITPRIP	29789287	10	106073434	UTR_3	ACCCAGTACGTTGGGGAAAG	ACAGCAGAAGGGGGTGCACC	G	A	SOMATIC	VALID
SJACT061_D	CRMP1	4503051	4	5827335	MISSENSE	TTTGGGTGTAGCTGGTACCT	GTACACAGGACCGTCATACA	C	T	SOMATIC	VALID
SJACT061_D	GTPBP4	55953087	10	1055509	MISSENSE	AATGGGAGATGATTATATTT	GGATCTTCAGAGTAAGGGCC	T	G	SOMATIC	VALID

SJACT061_D	TMC2	94536852	20	2573016	MISSENSE	CAGTGCCTCGGGCTGAGGAA	AAAAGGCCATGGATTTTTCT	G	A	SOMATIC	VALID
SJACT061_D	LHX6	134284359	9	124965049	UTR_3	AATAGTCTTGATGGCCTGTA	GTTCCCAGGCTGCTCTTAAC	C	T	SOMATIC	VALID
SJACT061_D	ZFYVE26	38202205	14	68242832	SPLICE_REGION	GGTCAGCAGAATCTGTTTGT	GGGTAGATCCATAGAGTAAA	G	A	SOMATIC	VALID
SJACT061_D	SPTY2D1	51702222	11	18630182	UTR_3	TGAGACTTGGCTTCCTTCCA	CATGATCCTAAGTCAGCCTG	G	A	SOMATIC	VALID
SJACT062_D	SEC24B	112382212	4	110451594	MISSENSE	GCTCCCTCAAGTTGTTTCCT	TCTATGTTTTGGCCCTTCTC	C	G	SOMATIC	VALID
SJACT062_D	DNAH2	75677365	17	7736694	SPLICE_REGION	ACTTCTCCTCTCCTTTCCCC	AGGCATGTACTCCTGCCCCT	C	T	SOMATIC	VALID
SJACT062_D	LOC100271702	-1	12	2039604	EXON	CAGGGTCCAGAACCCCTTAG	ATGATGGCAGTTTTTTGCCC	C	A	SOMATIC	VALID
SJACT062_D	AMIGO3	38454322	3	49754547	UTR_3	CGGCCATGCTCGCCAGGCTT	TCGGGCTTTTTACTGCTGAA	T	C	SOMATIC	VALID
SJACT062_D	RUNDC3A	5730015	17	42392622	SILENT	TACCTCCCGCTCGTCACCGA	GAGGACAGCTGGTACAGCAA	T	C	SOMATIC	VALID
SJACT062_D	GK5	88196792	3	141877710	UTR_3	GTATCTTTGAAAATTTACTA	TATACAGTATTAGTACCATA	T	C	SOMATIC	VALID
SJACT062_D	WDR17	31317311	4	177067210	MISSENSE	ATTATGTAGCCACCAGCTCA	ATCAACCATTGAAAGTATTT	G	A	SOMATIC	VALID
SJACT062_D	EMR4P	-1	19	6952990	EXON	CCTTCCGACACTTCATTGCA	GTGCCACACTACTGGACTCT	C	T	SOMATIC	VALID
SJACT062_D	KIAA1797	150456451	9	20862607	MISSENSE	TTCGCTCCACTTGGAATGCT	TCTCTCCAAAGCTGAGTTGT	C	G	SOMATIC	VALID
SJACT062_D	IL13RA1	4504647	X	117926179	UTR_3	AACATGAACAAATTTTATTT	TAGGGGAACTCATTTGGGGT	G	T	SOMATIC	VALID
SJACT062_D	PKP1	53729344	1	201282595	MISSENSE	AAAGAAGTGCCCTGTGCGCC	GCCCTCTTGTGCCTCCAAGC	C	T	SOMATIC	VALID
SJACT062_D	CHD9	95147342	16	53265658	MISSENSE	TTGCAAAAATAGAAGAGTTT	AACAACTGCAAGCTTCAAGG	G	A	SOMATIC	VALID
SJACT062_D	ADAMDEC1	223671930	8	24263332	UTR_3	TCTTGAAAGTGCAGTATTTT	CTACATCATGTCAAGAATGA	T	C	SOMATIC	VALID
SJACT062_D	SLC9A3R2	71897229	16	2088277	UTR_3	AGAGAGAGCGAGCGAGCGCG	GGCAGCCGCGGGGCGAGGGC	C	T	SOMATIC	VALID
SJACT062_D	UTRN	110611228	6	144806616	SILENT	CGGATGAAGAGCACAGAGGT	CTGCCTGAGAAGACGGATGC	C	T	SOMATIC	VALID
SJACT062_D	CDH1	4757960	16	68868638	UTR_3	GGGCAGCTATCCAGTGACTT	TTCTGAGTAAGTGTGTTCAT	G	C	SOMATIC	VALID
SJACT062_D	IGSF21	281306830	1	18703302	SILENT	TCTGGCCAACAGAACGAAGT	TTCCCGGAGCCCATGTTCAC	C	G	SOMATIC	VALID
SJACT062_D	DBC1	148529000	9	121930087	MISSENSE	AGTGAGGGACATGCGCTTGC	CCACCGAGGGTCAAAGAAGG	G	A	SOMATIC	VALID
SJACT062_D	DNAH8	126012497	6	38838304	MISSENSE	GGTTCAGATAGAGGGTTTGA	TAACCATCCACCCTGGAACC	T	A	SOMATIC	VALID
SJACT062_D	RAI2	290660717	X	17818201	UTR_3	AACATTTATTGTGAAATATT	ATCCTACCCTTTATTAGGTA	C	T	SOMATIC	VALID
SJACT062_D	NACAD	226437579	7	45125698	MISSENSE	ATGGTGGTGGCAGCGGCCGC	TCGCAGGACAGATCTGTGGA	A	C	SOMATIC	VALID
SJACT062_D	DHX35	20544129	20	37597790	MISSENSE	GGCTGAAAACTCTGGGACAA	GGTTGTTTACAACCCTTATG	C	T	SOMATIC	VALID
SJACT062_D	ZNF788	-1	19	12224408	EXON	AAAGCCTTCACATCTGCCAA	AGCCTTCAAAATCATGGAAG	G	C	SOMATIC	VALID
SJACT062_D	DENND2C	121949817	1	115168772	UTR_5	AGAAAATTTTGATCAGTGAT	CTTGTTGAAAATGGCTACAA	C	T	SOMATIC	VALID
SJACT062_D	QPCT	6912618	2	37594413	SILENT	CCAGATTTGTCACTCCAGCT	ATCTTCTTTGATGGTGAAGA	G	C	SOMATIC	VALID
SJACT062_D	OR4C15	52627199	11	55322792	MISSENSE	CTTAAATCCCTTGCTCAATC	TTTGATTTACACTTTCAGGA	C	G	SOMATIC	VALID
SJACT062_D	PGLYRP3	16418405	1	153270580	MISSENSE	ACTGGATCAGGTCCTGGGCC	CCTCCAGCGCTGCAGCATTT	G	A	SOMATIC	VALID
SJACT062_D	MORC1	221625538	3	108813779	MISSENSE	ATTTTCCATAGATCACATCA	ACTGCTGCATCAATTCTGCT	A	T	SOMATIC	VALID
SJACT062_D	MPP2	52630447	17	41953092	UTR_3	GAAAGACCGAGAAGAGACAG	AGGGAAGGGCCCCAGGCCTG	G	A	SOMATIC	VALID
SJACT062_D	ARL6IP4	50409691	12	123466208	MISSENSE	CTCCTCTTCTTCCAGTTCTT	TAGCTCCTCTTCTTCCTCCT	C	G	SOMATIC	VALID
SJACT063_D	FAM129A	16757970	1	184764640	MISSENSE	GGTGGATGGCAGCTGCCTGA	TGGGCTCTTTTTCCTCTTCT	C	G	SOMATIC	VALID
SJACT063_D	KRT72	28372503	12	52994886	MISSENSE	TGGGCGCGCACCCTCTGGAT	TCGGGGTCCATCTCCACGTT	C	A	SOMATIC	VALID
SJACT063_D	FRY	117606355	13	32863800	SILENT	TGTGTCAGAGATTATATAAG	TACACTTCCAGCTGCTATTG	C	T	SOMATIC	VALID
SJACT063_D	FAM120C	157388908	X	54177697	MISSENSE	CCTGAGACTGTTTGAAAACA	CCTTCCCAACTACATCCAGG	T	A	SOMATIC	VALID
SJACT063_D	TTLL10	194239678	1	1121070	UTR_3	GGACTTTTATCTGTCTTGGT	ACCCCGGCCAGGCCCCGGAA	C	T	SOMATIC	VALID
SJACT063_D	ALAS2	83977442	X	55047716	SPLICE_REGION	AGACATAGTTTCCTGCAGGA	CAGATATGAGGATGAAAAGA	G	T	SOMATIC	VALID
SJACT063_D	C17orf104	274315853	17	42746788	MISSENSE	CAAGAATTATCCTGGAAAAA	AGTATCCAGTACTAACAACA	A	T	SOMATIC	VALID

SJACT063_D	CD69	4502681	12	9907307	SPLICE_REGION	CTTAAAGAAAGCACAAAGGA	TTTGTTACATTAAACACCCT	G	T	SOMATIC	VALID
SJACT063_D	PNMA5	156766064	X	152157465	UTR_3	AACTGCAAACAGCCACTACA	GTCACAAGTCCCCGGCCCCT	G	A	SOMATIC	VALID
SJACT063_D	LPAR5	9966879	12	6730381	MISSENSE	GTAGTCAGGACACGGGAGAA	AGAACTGTTGGTTGAGGAGC	C	A	SOMATIC	VALID
SJACT063_D	OBSL1	144226847	2	220431628	SILENT	GCACCGCTGTCCTGGTGCTT	ACGGCATGCAGGATGAGTCT	G	C	SOMATIC	VALID
SJACT063_D	FLRT1	34577057	11	63886324	UTR_3	AATCTCTCCCCTGGCTTATT	CATACCATTTCCCTTGCAGA	C	G	SOMATIC	VALID
SJACT063_D	PRDM1	172072684	6	106554330	NONSENSE	CTCAGCTCGCCCACCTGCAG	AACACTACCTGGTACACACG	A	T	SOMATIC	VALID
SJACT063_D	LOC644145	-1	4	56703426	EXON	TAACGATGATTCCATTTGGT	CTCCAACAATAAGGATTGTT	C	A	SOMATIC	VALID
SJACT063_D	TAF1	20357585	X	70602433	NONSENSE	CCTCTAACTCCCCCTCCAAG	AGAGTAAGAAGGAATCATCT	G	T	SOMATIC	VALID
SJACT063_D	RBBP9	24119166	20	18477751	MISSENSE	CACCCAGCCATACCAGCCGT	GGTGGTCACATCCCCGCCTC	G	T	SOMATIC	VALID
SJACT063_D	CRCP	7656977	7	65619350	UTR_3	AAATTTGTATTTTTAGTAGA	ACAGGGTTTTGCCATATTGG	G	C	SOMATIC	VALID
SJACT063_D	OSBPL1A	19718741	18	21897365	MISSENSE	CAGCCAAAAAATCTTGAACT	TAAGGGAAAAATAACAAAGA	C	G	SOMATIC	VALID
SJACT063_D	GPR22	91106202	7	107114724	SILENT	TGCATGAAATCCAACTTAAT	AACTCTGTCAGTAACATTAT	C	T	SOMATIC	VALID
SJACT063_D	TMEM168	98961141	7	112430413	UTR_5	ACTTTCTCCGTTACCGGCCC	GCCGCGACCGCCATGTTTCC	G	A	SOMATIC	VALID
SJACT063_D	FUT4	4503811	11	94280527	UTR_3	AGTTTTCTCCTCCACTTATT	GAATAAGGACCCTCAGTGAC	A	T	SOMATIC	VALID
SJACT063_D	TFAP2C	4507445	20	55213235	UTR_3	ATCACCCGCCCCTGGACTTC	TAGTTGTTTCTCTAGCGCTG	T	C	SOMATIC	VALID
SJACT063_D	ARMCX1	7706143	X	100808344	MISSENSE	CCTTGCACCGAGTTTACCCT	CCCAGGAGGCAGGGGTGGAG	G	T	SOMATIC	VALID
SJACT063_D	ARL13B	33598956	3	93722684	MISSENSE	TCCAGTGATGAAGAGAGAAT	GAAGAGACAAAAGAGGCTAT	G	T	SOMATIC	VALID
SJACT063_D	ENTPD5	4557427	14	74444021	SILENT	CCTTCGTCGGATCCATCCAT	ATGCTAACACTGCCCTTTGG	G	A	SOMATIC	VALID
SJACT063_D	GFOD2	226371727	16	67708541	UTR_3	TCCTACTTCAAAAGCCCAAG	GCTCACTTAATAAAGCAAGC	A	G	SOMATIC	VALID
SJACT063_D	LANCL1	5174445	2	211297959	UTR_3	GATGAGTCAAAACACTTGAA	AGAATTTGAAGCACCAGAGA	C	A	SOMATIC	VALID
SJACT063_D	DOCK5	117553586	8	25126401	MISSENSE	CTCCAAAATAAATCTAAAAA	GTATGACTTATCATTCACTT	G	C	SOMATIC	VALID
SJACT063_D	MOCOS	157388923	18	33780207	MISSENSE	GCGGCTCCTCTACTGAGGAA	ACCTACTTTGGAGGAGGGAC	G	T	SOMATIC	VALID
SJACT063_D	MYO3B	284172510	2	171092500	SPLICE	TGTCCTGCTTTTGTCCAATA	GTCATTGCCTGTGAGCAGCA	G	T	SOMATIC	VALID
SJACT064_D	ITGBL1	4758614	13	102368623	UTR_3	CAGGAGGTAGAATATCAGAG	GGGGCTGGATCAAGGGCAAA	T	A	SOMATIC	VALID
SJACT064_D	BRD7	41350212	16	50357522	SILENT	TCCATCTCTTGTAGGGTCCT	GAATGCCCTCCTTTTGTTAA	G	A	SOMATIC	VALID
SJACT064_D	KLC2	12383062	11	66033566	SILENT	AAGCCTGTCCACCTGCAGGA	GGCAGTGGCTCCTTGAGGCG	T	C	SOMATIC	VALID
SJACT064_D	FAM86A	42476337	16	5141893	MISSENSE	AGGCTCTGTGTGGACAGCCT	GTGCTGGGGGCAGACAGAGT	C	T	SOMATIC	VALID
SJACT064_D	CCDC6	46852390	10	61552081	UTR_3	TTTACGAGAGACATGGATGT	AATAACACAATGAAAATAAC	C	T	SOMATIC	VALID
SJACT064_D	CPS1	21361331	2	211438118	MISSENSE	CTGGTGAAGTGGTTTTTAAT	CTGGCCTGGGAGGGTGAGTA	A	G	SOMATIC	VALID
SJACT065_D	CTNNB1	4503131	3	41266136	MISSENSE	GTGCCACTACCACAGCTCCT	CTCTGAGTGGTAAAGGCAAT	T	C	SOMATIC	VALID
SJACT065_D	FRMPD4	211971072	X	12742235	UTR_3	GACTGTGTGCAGAACACATT	TGTGTATTGCATATATGTAA	A	C	SOMATIC	VALID
SJACT065_D	PAPSS1	46094058	4	108575966	MISSENSE	CCACACGGCGGCCCTCATAC	TCAGAGCAAATGCTGTACAG	A	T	SOMATIC	VALID
SJACT065_D	C10orf81	46391075	10	115529650	SILENT	AGCTCACCAAGAAATGGTCT	CAAGACAAGGTAATGGGGCT	C	A	SOMATIC	VALID
SJACT066_D	UBASH3B	24497612	11	122683527	UTR_3	TGGCACATTTTAATGCATAA	CTGGGGGTTTCATTTTCCCA	G	A	SOMATIC	VALID
SJACT066_D	APOB48R	119220598	16	28507593	MISSENSE	GAAAAGTCTGGGTCCTAGAG	AGGAGGGGGATGAGGAGAGA	G	A	SOMATIC	VALID
SJACT066_D	SENP1	7657550	12	48482686	MISSENSE	TTCTCCATTGGCCATTTGCA	TCTGGCCAAAGGTTCTTAAA	C	T	SOMATIC	VALID
SJACT066_D	ZNF813	108796666	19	53995991	UTR_3	AATAATCGGCAAATTTTTCA	ACATCGTCCATACCTTGCAG	G	T	SOMATIC	VALID
SJACT066_D	EMBP1	-1	1	121310987	EXON	TCTTAGAAAGTTATTTTTTA	AAAAATCATGCTTACTATTA	A	C	SOMATIC	VALID
SJACT066_D	EFNB2	4758250	13	107143649	UTR_3	ACGGTTCCGTGAGATGCCTT	GGAGGACTTGGTTATTTTTG	C	T	SOMATIC	VALID
SJACT066_D	KCNQ1DN	-1	11	2891590	EXON	CCCACCTCTGCCCCCCGACC	CAGGGCTGTAACCTGGTGTC	C	T	SOMATIC	VALID
SJACT066_D	MAP1B	153945728	5	71495068	MISSENSE	TCATATGACATAAGTGAAAA	ACCACCAGCCCCCCCGAAGT	G	C	SOMATIC	VALID

SJACT066_D	PDE4DIP	50658071	1	144931337	SILENT	TCCTGGAGCAGTGCAGAGTA	CTCGCATCGGGTAAGACGGA	T	C	SOMATIC	VALID
SJACT066_D	FRA10AC1	24432067	10	95428627	UTR_3	ATTTGGGTGGGGACACAGAG	CAAACCATATCAGAGGTATA	C	G	SOMATIC	VALID
SJACT066_D	ALS2CR11	270133211	2	202400002	UTR_3	CTAGTATTTAGAAGCAGAAT	TCACTTAGAACTCAAATTCT	C	G	SOMATIC	VALID
SJACT066_D	TMEM14C	259089438	6	10730928	UTR_3	ATGTTCCAGCTTAGACTGAT	AAGAATTAAAAATCTGCATC	G	A	SOMATIC	VALID
SJACT066_D	FAM9A	284004934	X	8767047	SILENT	GCGGCCCTAACTTGAGCTTC	AACTGAGCTTTGGCAGCCTT	C	T	SOMATIC	VALID
SJACT066_D	HSPA4L	31541941	4	128743978	MISSENSE	AAAGAAATGATGCTAAGAAT	CCGTTGAAGAATATGTATAT	G	A	SOMATIC	VALID
SJACT066_D	STK35	260099625	20	2125579	UTR_3	CCCTGGAGACTTACTGTTAG	TGCCTGCCCTCAGTATAGAC	G	C	SOMATIC	VALID
SJACT066_D	PTPRF	109633039	1	44069779	MISSENSE	AGCCAGACACCACTTACGAC	TCAAGGTCCGCGCATGGACC	A	T	SOMATIC	VALID
SJACT066_D	PLAC2	-1	19	5561150	EXON	TGCTTCTCTTCTTGCGATGC	CTCTGGCTGCCCATGGGAGC	C	T	SOMATIC	VALID
SJACT068_D	DOK6	47575849	18	67510035	UTR_3	AAAAATTATCCTGCCTGAAT	ATCTGATGCTTTGTGCCTAA	C	T	SOMATIC	VALID
SJACT068_D	POM121L10P	-1	22	25041299	EXON	GAGAATCACTGGAGCCCAAG	GTTTGATTACAGCCTGGGCA	A	G	SOMATIC	VALID
SJACT068_D	ANKRD19	-1	9	95599197	EXON	CAAGTCTGTCCCCACCTTGT	GTCCTCCACCACACACTGAA	C	A	SOMATIC	VALID
SJACT068_D	RACGAP1P	-1	12	45456845	EXON	CCACCCTGAGACAAGCCAAT	TTATCAGATAGGTAGGGTTT	C	A	SOMATIC	VALID
SJACT068_D	COL12A1	93141047	6	75884932	SILENT	ACTGGGGTATATGTGACGAG	TACTGTTTCACTTTTCCTGG	A	G	SOMATIC	VALID
SJACT068_D	LOC90246	-1	3	128229375	EXON	ATGGGTGAATTTTATAGTGC	TGAATTATATAGATAAAGAT	G	A	SOMATIC	VALID
SJACT068_D	AGBL3	222352158	7	134701841	MISSENSE	CTGAGCCAGTGTATATCCCA	CGGGCTTAGAAACGGAACCC	A	G	SOMATIC	VALID
SJACT068_D	ST14	11415040	11	130079666	MISSENSE	GAGGAACAAGCCAGGCGTGT	CACAAGGCTCCCTCTGTTTC	A	G	SOMATIC	VALID
SJACT068_D	LOC100129858	-1	4	141290461	SPLICE_REGION	AATAGGTTATATTCTTTACT	ACCAAATTCAGAACAGCATT	C	T	SOMATIC	VALID
SJACT068_D	MTMR6	134142348	13	25828567	MISSENSE	GAGATCCAATCCTTTTCTAT	AAAACCTTAATGAGAAAAAG	T	A	SOMATIC	VALID
SJACT068_D	NFAT5	164419746	16	69726253	MISSENSE	TGGTAATGAGAATGTTCAAG	GCAGCTTAGTGCAGATATTT	A	G	SOMATIC	VALID
SJACT068_D	LOC285547	-1	4	13530546	SPLICE	AAAAACAAACAAACAAAAAC	TTTGCCTGTCTTGATGGTTT	C	G	SOMATIC	VALID
SJACT068_D	TCP11L2	22749517	12	106729410	SPLICE_REGION	ACAAATATGTGGCCTTTTCA	TCTTAGGTGCTCTTGATCAG	C	G	SOMATIC	VALID
SJACT069_D	C5	38016947	9	123714810	UTR_3	ACCTTGGAGGAGTATCTGTC	TCATGCCCTCCAAGGCCATG	T	A	SOMATIC	VALID
SJACT069_D	CTNND2	11034811	5	11111163	SPLICE_REGION	AGTTTTCAACGGTCTGCAGA	AAGGGGGAAACAGAGGAAAG	A	G	SOMATIC	VALID
SJACT069_D	DHCR7	119943112	11	71155945	SILENT	GATGCGGTTCTGTCATTGGT	ACGCCATCTAGACTCTTGGC	G	A	SOMATIC	VALID
SJACT069_D	ELAC2	145553959	17	12901733	MISSENSE	TGGGAAAGCAGCATACCTTA	GTTGACAAGTGTGGCACTGA	T	C	SOMATIC	VALID
SJACT069_D	GBP5	16418425	1	89734502	MISSENSE	ACACACCATATCCAAATTCC	TTGGTGTGAGACTGCACCGT	C	G	SOMATIC	VALID
SJACT069_D	ELF1	223941929	13	41506753	UTR_3	TTTTGTTGGGTCACTTATTT	TCTGCAACATTTTAGCTATT	C	T	SOMATIC	VALID
SJACT069_D	NAALAD2	4885505	11	89867959	MISSENSE	AGGGGCCGTCTGTACCTTTG	ATGTGCTTGGCTGCTGCGCT	G	C	SOMATIC	VALID
SJACT069_D	CAV3	15451860	3	8787355	SILENT	CTGGGCGTCCCACTGGCCCT	CTCTGGGGCTTCCTGTTCGC	G	C	SOMATIC	VALID
SJACT069_D	SRSF7	72534660	2	38971475	UTR_3	TGTTTTGTCCCAATTTCAGA	AATTCCTCAAACATGCATTT	C	T	SOMATIC	VALID
SJACT069_D	DLX6-AS1	-1	7	96607992	EXON	GGTCTATCTGCATGGGTAAT	TTCAGGCATGTAGCCTGCAG	C	G	SOMATIC	VALID
SJACT069_D	SHC3	224586793	9	91622368	UTR_3	ATAAACTCAGGCAGAGGCCT	ATACATTCACTTCTCTATCC	C	T	SOMATIC	VALID
SJACT069_D	HMCN1	118572606	1	186083132	MISSENSE	TCCTCCAAACATAAAGGGGG	CCCCCAGAGCCTTGTAATTC	G	C	SOMATIC	VALID
SJACT069_D	C17orf62	154350204	17	80402324	MISSENSE	CAAAGTCCCACAGCCTTACC	GCGGTGGCCCATGACTGCAC	T	C	SOMATIC	VALID
SJACT069_D	TSHZ1	38201677	18	72997812	MISSENSE	AGCACCAACGATGCCAGCCA	AAGGAGAGCTCCGCCCCCAC	G	C	SOMATIC	VALID
SJACT069_D	DDA1	13129016	19	17431335	UTR_3	GACAGGTCATTCCTGAGAGA	GGTCCATGGTGCCAAGGATG	C	T	SOMATIC	VALID
SJACT069_D	HDAC6	13128864	X	48674425	MISSENSE	GCACAGGGCTGGTCTATGAC	AAAATATGATGAATCACTGC	C	G	SOMATIC	VALID
SJACT069_D	OR8H1	52353290	11	56058500	MISSENSE	GAATCTGACAGTCCCGTAAG	ATGAAGTCAGGCACATTTGT	G	C	SOMATIC	VALID
SJACT069_D	AGAP3	110227613	7	150835372	SILENT	CAGTGGAGTGAGGCCACCAC	TCCCTGCCCCCAGGCATGCA	T	A	SOMATIC	VALID
SJACT069_D	TMEM161B	23503279	5	87524283	MISSENSE	TATCTTTTTTGGTTTTCCCT	TTTGTTGTTTCCCTGCAAGA	T	G	SOMATIC	VALID

SJACT069_D	ARHGAP6	95091875	X	11206890	SILENT	GGTTCCGGGGTGTTTGGGGA	GTTGACTCATTCGGTGTTTC	C	T	SOMATIC	VALID
SJACT069_D	C17orf54	-1	17	71746034	EXON	CCATCTCTGCAGGCCCCGTT	AAGGGGCCCCCTCTTCTGAC	C	A	SOMATIC	VALID
SJACT069_D	PCDHA8	9256596	5	140222942	NONSENSE	CGGCCAGGCTCCAAAAGCGT	ATCGAGGCAGTCGGCTGGCG	C	G	SOMATIC	VALID
SJACT069_D	C8orf34	307574657	8	69730886	UTR_3	TCTCATTTTTTAGATTACTA	ACATTCTACTTATCCACATG	A	C	SOMATIC	VALID
SJACT069_D	SLIT3	11321571	5	168093475	MISSENSE	GGGCTTAGGAACACGCGAGG	AGCCGCACTCTAAGTGTCTC	C	T	SOMATIC	VALID
SJACT069_D	RANBP17	12597633	5	170632576	MISSENSE	TTCGAGGGATTGCCTTTGCA	TGAACACAAAGACCAGCTAC	C	G	SOMATIC	VALID
SJACT069_D	SOCS4	40807480	14	55514379	UTR_3	GCTTTCAGTTAAAGTTTTGA	TTCTTATTATAAATAATATA	C	G	SOMATIC	VALID
SJACT069_D	TUBA4A	17921989	2	220115241	NONSENSE	GGCATACATCAGGTCGAACT	GTGGTCCAGGCGGGCCCAGG	T	A	SOMATIC	VALID
SJACT069_D	USP31	120587027	16	23080713	MISSENSE	GCAAGAGATGGAGACCTTGT	ATCTGCTGCCTCCCCAATCT	C	T	SOMATIC	VALID
SJACT069_D	UNC5D	209977117	8	35608246	SILENT	GTGAAGCAACTGAAGGTGGC	GTTTTTGGCTGCATGTCCTG	G	A	SOMATIC	VALID
SJACT069_D	TMEM135	281182571	11	87032415	UTR_3	ATGTGACTAAATGTTTCATC	TGAAGAGTTAATTATGTTGA	T	G	SOMATIC	VALID
SJACT069_D	NR2C2	36950991	3	15089768	UTR_3	CTCATCCCACAAGATTGTGC	ACCTTTCCCCGTCATAGCCT	G	A	SOMATIC	VALID
SJACT069_D	AFAP1L1	55742689	5	148719805	UTR_3	GAAATGGAGAGCATCCTTAT	ACTTTACAAAGGGTGGAAAT	G	A	SOMATIC	VALID
SJACT069_D	AMMECR1	284413707	X	109439282	UTR_3	AACGTTATTACACTGCTAAG	AAATCTGTATAACATCTGCA	A	T	SOMATIC	VALID
SJACT069_D	BNC1	157276588	15	83936979	SILENT	CTACAGTTCAGAGTACAGCT	ATAGCCTGAAAAAGAGGAGA	G	T	SOMATIC	VALID
SJACT069_D	GABRA1	189083726	5	161318019	MISSENSE	CTCTCACAAGTCTCCTTCTG	CTCAACAGAGAGTCTGTACC	G	T	SOMATIC	VALID
SJACT069_D	LOC284232	-1	13	19421112	EXON	TTCGCCAGATTAAGTGAGGC	GAGGGCAGGAAAGGGTTAGC	A	G	SOMATIC	VALID
SJACT069_D	LRRC32	5031707	11	76376914	MISSENSE	TGTCTGGGCAGAGCATCTTA	CATCTTACAGGGCACTTTGT	C	A	SOMATIC	VALID
SJACT069_D	BNC1	157276588	15	83935763	MISSENSE	TAATATCAAACACTACATTG	ACTGGACAATCTCCACCTGG	G	A	SOMATIC	VALID
SJACT069_D	C10orf71	206597543	10	50532508	MISSENSE	GTCCAGACTCCAGGGAACAC	GCCCCAGGAAACACCTCTCC	C	A	SOMATIC	VALID
SJACT069_D	RPGRIP1L	118442834	16	53679587	MISSENSE	TCAGAGGCACATTGACTTTT	CTATGTAAATATTCTCCTGG	C	G	SOMATIC	VALID
SJACT069_D	ZNF420	22095393	19	37619076	MISSENSE	AAAAGCCCTATGAATGTAAG	AATGTGGAAAGATGTTTAGT	G	C	SOMATIC	VALID
SJACT069_D	C3orf77	222537754	3	44285528	SILENT	GCCTGGTGTTGGAAAAAGGC	TCCTTGCCAGAATCAAGTTA	T	C	SOMATIC	VALID
SJACT069_D	DAPK1	89363047	9	90318020	MISSENSE	GAGGAAGCTCAATGGACCCA	CCAGCTGATGTCGCTGCAGC	A	C	SOMATIC	VALID
SJACT069_D	C4orf17	269847694	4	100443692	MISSENSE	CAATCTGTACTGTGAATGAT	ATGAGAATGCATTTGGAACA	G	A	SOMATIC	VALID
SJACT069_D	ATF2	22538422	2	175978721	SPLICE	TAAATAGTCTAACTTTCTTA	TGGGACTGCAGCTGGAACAT	C	G	SOMATIC	VALID
SJACT069_D	FOLH1	4758398	11	49168345	MISSENSE	AAGTCTCTGCAGCTGCCTGC	CTGTGAAGGCTGCAACATAA	A	T	SOMATIC	VALID
SJACT069_D	MSR1	20357512	8	15966909	UTR_3	AAGTGGCATTTTTGATCCAC	AATTATCTGGACAAATATAC	C	A	SOMATIC	VALID
SJACT069_D	TMPRSS15	223942069	21	19744515	MISSENSE	GGGGGGAGAACTTACCACAC	TTTTATTGTCTTCGTCAGAA	A	G	SOMATIC	VALID
SJACT069_D	TNC	153946395	9	117848646	MISSENSE	CCTTGAAGCCTTGCTCACAT	CACATTTGCCCTCGACACAG	A	G	SOMATIC	VALID
SJACT069_D	SCN9A	4506813	2	167052810	UTR_3	TTATTTTTAATTGATAAAAA	TCACAAGTAGACATTCCTGA	G	C	SOMATIC	VALID
SJACT069_D	TGFBR1	195963412	9	101916105	UTR_3	CGGGGAGTGCCCTCCTGTCT	CAGGTGTGTCTCTGTGCCTG	G	T	SOMATIC	VALID
SJACT069_D	ZNF542	-1	19	56890296	EXON	TGTTTTTATTATGGATAATG	AGGAGGTAAAGGTTGAATTA	G	C	SOMATIC	VALID
SJACT069_D	DZIP3	7662244	3	108412468	UTR_3	GACCTTGTCTAAAATTTCTT	GTGTTCCCAGTGTCTTGCCC	T	G	SOMATIC	VALID
SJACT069_D	TUBGCP6	56788364	22	50659768	MISSENSE	GAGCAGCACGCCTGGGTGGG	GTGAGGGGAGCAGAGTCTCC	T	A	SOMATIC	VALID
SJACT069_D	ESYT1	14149680	12	56522476	MISSENSE	AAACTCTCTATATGAGTCAT	GAGAGCTACCTGCCTGGGTG	C	G	SOMATIC	VALID
SJACT069_D	NLRP1	14719833	17	5436296	MISSENSE	CACCGGTACTACCTCTGGGG	GCTTTCCTCTGAAACAGCAA	A	T	SOMATIC	VALID
SJACT069_D	ZNF761	209954795	19	53959026	MISSENSE	TGACAAAGCTTACAGTTTCA	ATCAAATTTTGAAATACATC	G	C	SOMATIC	VALID
SJACT069_D	ZNF670	15082252	1	247200757	MISSENSE	GTTGTTGTTGTTTTTTACCA	ATATAAGCTCTTTCATGCTT	C	T	SOMATIC	VALID
SJACT069_D	PCF11	33620745	11	82868230	UTR_5	GCTGGAGCCGCCACTGCCGC	GCCATTTTGTGTCTGTGGAG	C	T	SOMATIC	VALID
SJACT069_D	AFF4	7656879	5	132270564	MISSENSE	TATAGATCTGTCTCCTATGA	ATCCTTCATTTCATCGTAGT	A	T	SOMATIC	VALID

SJACT069_D	RNF166	284521571	16	88769531	UTR_5	ACGTCCCACCCGTGTCGTGG	GGTCCACTCACGCTCAACGT	G	A	SOMATIC	VALID
SJACT069_D	DNM3	209915561	1	172011224	SILENT	CAAGTAGATACCCTGGAACT	TCAGGTGGTGCTAAAATCAA	C	G	SOMATIC	VALID
SJACT069_D	IRX5	139394646	16	54966691	MISSENSE	CTCAAGAAAGAGAATAAAAT	ACGTGGACGCCGCGGAACCG	G	A	SOMATIC	VALID
SJACT069_D	ADCY2	115387102	5	7829987	UTR_3	GATCACTTAAGCCCAGGAGT	TGAGACCAGCCTGGGCAACA	C	G	SOMATIC	VALID
SJACT069_D	HSP90AA4P	-1	4	190394346	EXON	TTAGACTCTGGGAAAGAGCC	CATATTAGCCTTATACCAAA	G	A	SOMATIC	VALID
SJACT069_D	LRMP	42789729	12	25260891	MISSENSE	AGGCCAATTATTCCAGAAGT	TGTGGATGCCGCTCCCACAC	C	T	SOMATIC	VALID
SJACT069_D	IFT57	8922256	3	107881179	UTR_3	AGTGTAAAGGCTTTAACCAT	ATAATCACCATGATATAATA	C	T	SOMATIC	VALID
SJACT069_D	RRAS2	21361416	11	14299496	UTR_3	ACAGATCAATTTTAATTCTA	CACCTGAAGCTATACAAGGG	G	C	SOMATIC	VALID
SJACT069_D	PPP2R5B	5453952	11	64695282	SILENT	TCTGCCACTCAGATCTCAGT	AATATCTTCCGGACTCTGCC	G	A	SOMATIC	VALID
SJACT069_D	OR4N4	52546695	15	22383366	MISSENSE	CAGGAAGTGAAAACTTCCAT	AAGAGGTTATTGAGTCGACA	G	T	SOMATIC	VALID
SJACT069_D	RPS14	68160922	5	149829274	UTR_5	CGGGCCTCCTACCTGCACGT	GTCTCCAGACTCCACACCGG	C	T	SOMATIC	VALID
SJACT069_D	DYNC1H1	33350932	14	102505167	MISSENSE	ATGTGGACGAGAAACGATCT	ATCTTCTTAAACTTCAAGGT	G	A	SOMATIC	VALID
SJACT069_D	STIM2	281182836	4	27019543	MISSENSE	TATCCTCTCAGTGTCAAGTT	CCCTGCGCTTTATCGAAATG	G	T	SOMATIC	VALID
SJACT069_D	SOS2	154689780	14	50626444	MISSENSE	GCAGCAAATATTATGCTGTT	TCATCTTTGGATACTAATTC	C	G	SOMATIC	VALID
SJACT069_D	EXT2	296010873	11	44151612	MISSENSE	CAGAGCATCTGTGGTTGTAC	AGAAGAAAAGATGTCAGATG	C	A	SOMATIC	VALID
SJACT069_D	ENDOG	53759134	9	131580803	UTR_5	CCGGTTGGGCTCTGCTGCTC	CTTCTGGGTTCCGAGGCCCA	C	T	SOMATIC	VALID
SJACT069_D	LIN28B	51972214	6	105527902	UTR_3	CACCAGAGAGCTAGAAGTAT	TTATACAGTAACTTTGATCT	T	C	SOMATIC	VALID
SJACT069_D	CD84	4502687	1	160513607	UTR_3	AATACTAGCAGCATTTCTGT	GTAAGAAGCTTATTTCATGA	T	C	SOMATIC	VALID
SJACT069_D	TSSK4	42734401	14	24676407	MISSENSE	GGGAGAATGTGAAGATATCA	ACTTTGGCTTTGCCAAGATG	G	C	SOMATIC	VALID
SJACT069_D	HTR7	4504547	10	92501886	UTR_3	TATTCACCACAACGCCTAGA	TCAGAAGCATGGGAAGTGTG	C	A	SOMATIC	VALID
SJACT069_D	PLEKHA9	-1	12	45609776	EXON	GCGCGCAGGATCGCACTACT	CCTCTGCAGTCTCGCCTGCC	C	A	SOMATIC	VALID
SJACT069_D	AEN	194239666	15	89173745	UTR_3	TCTTTCTTCTGACTCCTGTG	TTTTGCTAATGGCACTTTAC	G	T	SOMATIC	VALID
SJACT069_D	IFLTD1	224593268	12	25656727	MISSENSE	GACTCAGATGTCTTCTTTTT	TTAGACCCTGAAAATTAAAA	C	G	SOMATIC	VALID
SJACT070_D	KCTD15	194018439	19	34304325	UTR_3	CAGAGAGGCTGACAAGGACC	ATGCTTCTTTATCTGGTGCT	A	C	SOMATIC	VALID
SJACT070_D	THBS1	40317626	15	39883753	MISSENSE	AGTACGTCTACAATGTGGAC	AGAGAGACACTGATATGGAT	C	A	SOMATIC	VALID
SJACT070_D	LDLR	4504975	19	11242754	UTR_3	GTGTGGCTGTCAGGACACCA	CCTGGTGCCCATCCTCCCGA	G	A	SOMATIC	VALID
SJACT070_D	MAP1B	153945728	5	71495065	SILENT	TACTCATATGACATAAGTGA	AAGACCACCAGCCCCCCCGA	A	G	SOMATIC	VALID
SJACT070_D	KDM5B	57242796	1	202715098	SILENT	ATAGGGTAGAGATCATCCAG	GTGTACCTATACCTGGAAAT	C	T	SOMATIC	VALID
SJACT070_D	CUZD1	30520377	10	124596475	MISSENSE	CGAAGGTGGGAGTCACACGG	CACAGACTTGTCCAATCAGG	C	A	SOMATIC	VALID
SJACT070_D	UFD1L	29501813	22	19443220	MISSENSE	TACCTTTTAATATCTCCAGG	TTGATTGGGGAGGGGCTGGG	C	G	SOMATIC	VALID
SJACT070_D	SUN1	195972890	7	913529	UTR_3	AAAATGTGTTTTTCTGCTTT	TTCGCTCTTACTTCTGAGGA	G	C	SOMATIC	VALID
SJACT070_D	PRKD3	5031689	2	37478348	UTR_3	ATAACATTTCTAAAAAAAAA	TTTTTTTGAAAATTAATTTG	T	A	SOMATIC	VALID
SJACT071_D	ABCC10	25914749	6	43415439	SILENT	CAGCTGGGCACCGGCTGGCT	ACCCAGGGGGGCGTGGAGTT	G	A	SOMATIC	VALID
SJACT071_D	NCRNA00202	-1	10	27229950	EXON	AGCCTCATAACAAGCACATC	TTTACAGATGAGAAAACTGA	G	A	SOMATIC	VALID
SJACT071_D	ZNF614	38505215	19	52518906	UTR_3	AAGGCACTACCTTATTTACT	TATTCATCAAATTGATCTCT	G	A	SOMATIC	VALID
SJACT071_D	DEFB127	21040279	20	138207	MISSENSE	TGGGGCTCTTCATGATCATT	CAATTCTGCTGTTCCAGAAA	G	A	SOMATIC	VALID
SJACT071_D	CST9	226529477	20	23586608	UTR_5	TTCACCTGCTGGGGCAGAAA	TCCTCCCTCCAGGCCTCACC	C	G	SOMATIC	VALID
SJACT071_D	MAP3K15	282847398	X	19389531	MISSENSE	GCTGTCAAAGTCCAGGTCCA	CTTGAGCTTTGATATTGTGG	C	T	SOMATIC	VALID
SJACT071_D	IGFBP5	10834982	2	217539229	UTR_3	AGATTTGCTTTTTCGCTATT	CTCTTCGTAGCCCCAAATTC	C	G	SOMATIC	VALID
SJACT071_D	RNF168	31377566	3	196196303	UTR_3	AGATGCCATCAGGTATGCAA	GATTAACAAAATTCTATTAC	A	G	SOMATIC	VALID
SJACT071_D	TRIM22	117938316	11	5731166	UTR_3	GCTCTGTTCCATGCCTCTCT	CTTGGCTTGTAGAAGGCATC	C	T	SOMATIC	VALID

Chr=chromosome, pos=posi

Supplementary Table 3b Validated Non-silent Tier1 SNVs in the WES cohort

Sample	Gene	protein_gi	chr	pos	class	flanking_region_5	flanking_region_3	Ref Allele Counts	Non-ref Allele Counts	Origin	Validation status
SJACT009_D	MKRN3	5032243	15	23811377	MISSENSE	CTAGCACGGCTGCGCACATC	AGCCCCCGACTCAGGAAGTG	G	A	SOMATIC	VALID
SJACT010_D	PER3	8567388	1	7895887	NONSENSE	CTAAAATCTCCCAAAATGGG	AGCAATCTCAGGACGTACAG	C	T	SOMATIC	VALID
SJACT010_D	CAPN12	38707981	19	39234750	MISSENSE	GCTGCAGGCGCCCGGCTCCG	CCCCAGCCTCCTCATCCACG	A	G	SOMATIC	VALID
SJACT012_D	SSPO	134031945	7	149492644	MISSENSE	CAGGCATCCTAGTGCCGGAG	CTGGCTCCTCCAACGCATAT	A	C	SOMATIC	VALID
SJACT012_D	ENPP6	23503267	4	185045426	MISSENSE	CAGAATCTCAACCTCACAGC	TGAGAAGGAAAAAGATGGCA	C	G	SOMATIC	VALID
SJACT012_D	DHFRL1	307548863	3	93780321	MISSENSE	TGCCGATGCCCATGTTTTGG	ACACAGCGACGATGCAGTTT	G	A	SOMATIC	VALID
SJACT012_D	MELK	7661974	9	36583708	MISSENSE	CATGGATAAAAACACACTAG	GGTAAGTTTAGATTTATTTA	G	T	SOMATIC	VALID
SJACT012_D	KLB	28376633	4	39439349	MISSENSE	TTTCTTTTCTCTGTGCAGCA	TAAGGTTAGATGAAATACGA	A	C	SOMATIC	VALID
SJACT012_D	PTPRJ	148728162	11	48166646	MISSENSE	ATGTGTCCTTCAGTCGCTAC	CAGATGCTGTTTCCTTGCCC	T	A	SOMATIC	VALID
SJACT012_D	XIRP2	312433986	2	168107216	MISSENSE	CCATCAGGAAATTAAACTTG	TGATAGCAACATTCCTCCTC	A	T	SOMATIC	VALID
SJACT012_D	NUBP1	118572611	16	10855667	MISSENSE	GGCGCGGAGCTCATGTGCCA	GACTTGGAGGTCCCTCTCCT	G	T	SOMATIC	VALID
SJACT012_D	SLC4A9	151101449	5	139743363	MISSENSE	CAGGAAGGTCCCGTGGTACC	CAGCGATTTCTTGGACGCCC	C	T	SOMATIC	VALID
SJACT012_D	HIVEP2	110347463	6	143092249	MISSENSE	ACCATACAAACTGTAGGATA	TGAAACTGAAACAAGGCATT	C	A	SOMATIC	VALID
SJACT012_D	CDHR4	203097724	3	49831400	MISSENSE	GGGCACAGGCTGGGGAGAAC	CGTTGATGGGTGTCACCATC	T	A	SOMATIC	VALID
SJACT012_D	UBQLN1	16753203	9	86292833	MISSENSE	AAGGTTGACTACCTTCACCA	AGGATGTATTGCTCACCAAG	G	T	SOMATIC	VALID
SJACT012_D	STRA8	32698790	7	134928088	MISSENSE	TCCCCAATAGCATCCTTCAA	CTGGAAGATGGGCATGCAAG	C	A	SOMATIC	VALID
SJACT012_D	TMEM232	291291005	5	110002944	MISSENSE	CTTACCTTGATTTATGACCC	TTTCTCCACTTAAATGTTGA	C	A	SOMATIC	VALID
SJACT012_D	URM1	209693464	9	131133693	MISSENSE	TGTCAGTGGAGGTGGAGTTC	GGTGAGTCACAGAGCTGGGG	G	C	SOMATIC	VALID
SJACT012_D	JAM3	21361905	11	134018679	MISSENSE	TTACAAGAACCCAGGGAAAC	AGATGGAGTTAACTACATCC	C	A	SOMATIC	VALID
SJACT012_D	PPP2R5C	240849353	14	102368143	MISSENSE	AATTAGAAGAGATTTTAGAT	TCATTGAACCATCAGAATTT	G	T	SOMATIC	VALID
SJACT012_D	COPG	11559929	3	128985939	MISSENSE	CAGTATCTTGGTGTTGCTGA	GAGGTGAGTCTAGGCCCAGG	A	G	SOMATIC	VALID
SJACT012_D	TNKS1BP1	110556636	11	57069616	MISSENSE	GGCCCAAGGTACCCCCAGGC	GAATGACCGGGGCCCGGTGC	C	A	SOMATIC	VALID
SJACT012_D	SPATS1	21450753	6	44310870	MISSENSE	CACTGGAAACAGTCCACGGG	CTGCCGTCTCCCCTCCATCT	G	C	SOMATIC	VALID
SJACT012_D	TNR	157384973	1	175365775	MISSENSE	GACCTGGCTCCAGCTCCGTG	TGGTGACACCACTCCAATCT	A	C	SOMATIC	VALID
SJACT012_D	TRIM66	209977097	11	8640409	MISSENSE	ACACCTCCTCGGAGTCTGAG	CCTCCTGCCTTGGCTGGGCA	T	A	SOMATIC	VALID
SJACT012_D	BANK1	260763960	4	102751258	MISSENSE	TTTGTGGAGTGAAGAGTTCA	ATCAGCTCTATGAATTACTA	G	C	SOMATIC	VALID
SJACT012_D	C9ORF135	58219541	9	72435817	MISSENSE	TGGATAGCCTTGACAGATCC	GCCAGGACTGGTGCGACAGG	T	C	SOMATIC	VALID
SJACT012_D	ATP8B4	50083277	15	50168539	MISSENSE	CAAAGGACTGGTAGTCAGCA	TATGTTGCCCATCTTCTCCA	A	G	SOMATIC	VALID
SJACT012_D	GCM1	45269133	6	52993365	MISSENSE	GCCAGCTGGTCAGAGGAAAA	GATAATTGGAATAACAGTTG	G	A	SOMATIC	VALID
SJACT012_D	C10ORF18	296011010	10	5777491	MISSENSE	GCAATGAGAACCCCAGAAAC	GAAAGCAGCTACAACCTGGT	A	G	SOMATIC	VALID
SJACT012_D	DNAH2	75677365	17	7673581	MISSENSE	TGGCTGCAGGCACTGGGACC	GGTCCGGGATGAGATCCAGC	A	G	SOMATIC	VALID
SJACT012_D	DNAH2	75677365	17	7673582	MISSENSE	GGCTGCAGGCACTGGGACCA	GTCCGGGATGAGATCCAGCG	G	T	SOMATIC	VALID
SJACT012_D	MGAT2	4505163	14	50088983	MISSENSE	ATGCCTATCAGAAGCTGATC	AGTGCACAGACACTTTCTGT	G	C	SOMATIC	VALID
SJACT012_D	ATP6V0A1	-1	17	40629761	SPLICE	GGCACTCCTTTAAGACTTGG	TAAGTGCCATGTCAACTTTT	G	T	SOMATIC	VALID
SJACT012_D	ZNF391	115583660	6	27368582	MISSENSE	AATGCAACAAATGTGGGAAA	CTTTCAGCCGAAGTACACAC	T	C	SOMATIC	VALID

SJACT012_D	MIPEP	-1	13	24380087	SPLICE	AGAAGCCAAATGCTGGACTC	CAGTATTTGGAACATATGGT	A	G	SOMATIC	VALID
SJACT012_D	ENPP6	23503267	4	185045425	MISSENSE	CCAGAATCTCAACCTCACAG	CTGAGAAGGAAAAAGATGGC	C	A	SOMATIC	VALID
SJACT012_D	BPI	157276599	20	36940309	MISSENSE	CTCTTCCACAAAAAAATTGA	TCTGCGCTTCGAAACAAGAT	G	T	SOMATIC	VALID
SJACT012_D	SLC8A2	57163987	19	47933588	MISSENSE	GAAGGGGCGGCCCTGCACCG	CCAGTACACGGCGGCCACAG	C	A	SOMATIC	VALID
SJACT012_D	LACRT	15187164	12	55026149	MISSENSE	GGTTCTGCTGGACCTGAGAT	TCTTCATTAGGCTTAGCTGT	C	G	SOMATIC	VALID
SJACT012_D	LIPM	189571695	10	90568111	MISSENSE	GAATATGAAGTCGCAACTGA	GATGGGTATATCCTTTCTGT	A	T	SOMATIC	VALID
SJACT012_D	MICAL1	205360947	6	109774906	MISSENSE	TAGCACCGAGTGCCCGCAGG	CGTGGATGGTGAAGGGCCAG	T	C	SOMATIC	VALID
SJACT012_D	TRIM68	37622899	11	4623549	MISSENSE	AGCTGCTGCTACCTCTGCCC	CAGCTGCCGATGTGGTGGCT	C	A	SOMATIC	VALID
SJACT012_D	MYH6	156104908	14	23870152	MISSENSE	CCCTTGAGCAGGTCAGCTGA	TTCAGCCCCATGAGGTAGGC	G	T	SOMATIC	VALID
SJACT012_D	EFCAB4B	222418791	12	3788112	MISSENSE	CTTTTGGGCTCCAAGTCTGT	CATCAGCATCCGGAACTGGG	C	T	SOMATIC	VALID
SJACT012_D	PDS5A	155030216	4	39881420	MISSENSE	TCTTCATCATCTGCTGTCCC	TCTATTGACTTATTCATCAA	C	A	SOMATIC	VALID
SJACT012_D	FMNL3	119120861	12	50050684	MISSENSE	TGACCAGGTTGAATCCGTAC	GCAAGGGAAAGGACAGAAGG	T	A	SOMATIC	VALID
SJACT012_D	RGS7BP	71274166	5	63803648	MISSENSE	GCGGAAATGCACAAGACAAG	ACCAAAGGCTGTGAAATGGC	A	C	SOMATIC	VALID
SJACT012_D	FNIP1	120953291	5	130982826	MISSENSE	GACATGAACACGCATCTGCC	CCTCAGGTATTCAGACAGCA	C	T	SOMATIC	VALID
SJACT012_D	FBN2	66346695	5	127782281	MISSENSE	CTTGGCATATCCCTGGGATA	CCTGGCATTCATCAACATCT	G	C	SOMATIC	VALID
SJACT012_D	CHI3L2	68533255	1	111773529	MISSENSE	CATCAAGGACAAGAGTGAAG	GATGCTCTACCAGACCATCA	T	A	SOMATIC	VALID
SJACT012_D	PPP1CC	4506007	12	111168384	MISSENSE	TGCTGGCACATTCATGGTTC	CTCTGAGAAGAAAAAAATTC	C	T	SOMATIC	VALID
SJACT012_D	SEMA3F	188497703	3	50222148	MISSENSE	ACCCTCTGCAGCGGCGGCCC	TGGTAGTCCGCACAGGTGCT	C	A	SOMATIC	VALID
SJACT012_D	TAS2R39	116875819	7	142881166	MISSENSE	TCTTTAACCTGGGGATTGTG	CTCCTCTGATCATGTTCATC	A	C	SOMATIC	VALID
SJACT012_D	TLE2	21361151	19	3013769	MISSENSE	GCAGGAATGCAGATGGGTAC	TTTCCGCAGGGGGTGGTAGC	C	A	SOMATIC	VALID
SJACT012_D	CRY1	4758072	12	107486736	MISSENSE	CCAGTGCACGGCGTTCACCC	CATGCCGGGGGGCGCGGCGG	C	T	SOMATIC	VALID
SJACT012_D	SLFN11	157388957	17	33679881	MISSENSE	GTACTTGGCTATTGGATCTG	ATTGCGAACTATTCTGGTGA	C	A	SOMATIC	VALID
SJACT012_D	ASRGL1	145275202	11	62124514	MISSENSE	GCAGTTTGCAGCAGCTATGG	GGTTCCAGAGATTCCTGGAG	G	T	SOMATIC	VALID
SJACT012_D	ZNF558	21687264	19	8922387	MISSENSE	TACATTCATGGTGATTCTCC	CCGTGTGAATCCTCTTGTGG	C	T	SOMATIC	VALID
SJACT012_D	FAM13A	56119110	4	89653159	MISSENSE	CCAAAATGACATACATTGAG	CAGCATGGAGATTTGAAAGC	G	C	SOMATIC	VALID
SJACT012_D	FLJ44054	-1	13	114624158	INTRON	AAGCTCAGCAACAAGGTAAG	GAATGGGCAGCTTTGTTTTA	G	A	SOMATIC	VALID
SJACT012_D	DUSP2	4758206	2	96809962	MISSENSE	GTTGTCCTCCACAGGGATAC	CTTGTAGCGGAAAAGGCCCT	T	A	SOMATIC	VALID
SJACT012_D	SP7	291045138	12	53722588	MISSENSE	GCCCTGGTTGCAAGAGGTGG	GAGCTGGGTAGGGGGCTGGA	G	A	SOMATIC	VALID
SJACT012_D	TAF1L	24429572	9	32631656	MISSENSE	CATGGCAACAGGTTTCGAAG	TGGCACATTTGTTTGATAAT	G	T	SOMATIC	VALID
SJACT012_D	CSAD	-1	12	53555181	INTRON	ACGGCACAGCACCCTGTTGC	AAAATGTAGAGGGAGAAAGA	C	G	SOMATIC	VALID
SJACT012_D	GPR110	61743940	6	46979912	MISSENSE	CAGCTGCCTCAGTGGCATTG	CTACAATCATACTGAAATTC	C	A	SOMATIC	VALID
SJACT012_D	SYT15	31881667	10	46967540	MISSENSE	TTCACCAGGGGGCTGCAGGT	TCCGAGGGGGCTTGCAGGTG	C	A	SOMATIC	VALID
SJACT012_D	COL4A3	89142730	2	228148552	MISSENSE	TCCAGGGCCCCCTGGGAACC	AGGCACACCAGGGCAGAGGG	C	A	SOMATIC	VALID
SJACT012_D	OR6C68	53933290	12	55886217	MISSENSE	TCTGGGACTGACAGAAGATC	TCAGCTGCAGGTTCTGCTTT	C	A	SOMATIC	VALID
SJACT012_D	SPOCD1	-1	1	32258375	INTRON	ACGGTGGGCAGAGCCTAGGG	CAGGAAGGATGGCCAGTCAG	G	C	SOMATIC	VALID
SJACT012_D	TTBK2	116812624	15	43132622	MISSENSE	AGCCAATAAATCTACAAACA	GGTCTTTCCCTGGATAAAAA	T	C	SOMATIC	VALID
SJACT012_D	RGS7BP	71274166	5	63803631	NONSENSE	GCTGCCCCTCACTCCGGGCG	AAATGCACAAGACAAGAACC	G	T	SOMATIC	VALID
SJACT012_D	BPI	157276599	20	36940308	MISSENSE	ACTCTTCCACAAAAAAATTG	GTCTGCGCTTCGAAACAAGA	A	T	SOMATIC	VALID
SJACT012_D	TRIM66	209977097	11	8640410	MISSENSE	CACCTCCTCGGAGTCTGAGT	CTCCTGCCTTGGCTGGGCAA	C	A	SOMATIC	VALID
SJACT012_D	HLTF	21071052	3	148793742	MISSENSE	TCTTTCTTTAAATGGCCAAC	TGATTTCCATTCACATTGTT	T	A	SOMATIC	VALID
SJACT012_D	KLRAQ1	-1	2	48737256	INTRON	ACATCAGCAGACTTCAGGTG	GTTAAGTGTTACCTGAATGG	A	T	SOMATIC	VALID

SJACT012_D	ADAMTSL1	154275767	9	18887973	MISSENSE	CCTTAGCGGTGGGTCTCAAG	GGAATTCAGCTGCCTTGCTC	G	A	SOMATIC	VALID
SJACT012_D	SECTM1	4506869	17	80285038	MISSENSE	CCTACCTTCATTCTGAGCAC	CAAGGAGGCAGCCAAAAACA	T	A	SOMATIC	VALID
SJACT012_D	COL6A5	183583553	3	130116477	MISSENSE	ACATCTCCACTCATGTGCAG	GGCAGCCTTTGTTCCAGGGC	G	A	SOMATIC	VALID
SJACT012_D	HIVEP2	110347463	6	143092250	MISSENSE	CCATACAAACTGTAGGATAC	GAAACTGAAACAAGGCATTC	T	A	SOMATIC	VALID
SJACT012_D	FER1L6	119120884	8	124987416	MISSENSE	AGTTCTGCAACAAGTGGGCC	TGCTCACAGACCCTGGTGAC	C	A	SOMATIC	VALID
SJACT012_D	ACACA	38679977	17	35470108	MISSENSE	GGAGCCACCCCGCAGCTCAG	CTGGGGAGGAATGTAAACCA	C	A	SOMATIC	VALID
SJACT012_D	PTPRJ	148728162	11	48166645	NONSENSE	TATGTGTCCTTCAGTCGCTA	TCAGATGCTGTTTCCTTGCC	C	A	SOMATIC	VALID
SJACT012_D	RDH8	-1	19	10131375	INTRON	AAAGAGCTCTCCTCCCTCTG	CCCTCACAGGTGTCATCTTC	A	C	SOMATIC	VALID
SJACT012_D	LOC342346	222446620	16	4625852	MISSENSE	CTCGCAGCTGTCCAAGTAAA	GGGGAGGAAAATGATGTCCC	G	T	SOMATIC	VALID
SJACT012_D	SLC30A6	301898419	2	32445774	NONSENSE	ATAATAGAATTGGACAACCA	GACCATGATAGACTCTAACT	A	T	SOMATIC	VALID
SJACT012_D	ABCB5	255708477	7	20685451	MISSENSE	CTGTGGCAGAAGAAGTCTTG	CATCAATCCGAACAGTCATA	T	C	SOMATIC	VALID
SJACT012_D	GFI1B	205277343	9	135863731	MISSENSE	CCCCTCCACCATGCAGTCAG	CTTCCTGGAGCACTCCGTCA	C	G	SOMATIC	VALID
SJACT013_D	KIAA1211	148806928	4	57180908	MISSENSE	AGGGCCAGGCGCACCTGGAG	ACTGGAGGGGGCAGCTCAGT	G	A	SOMATIC	VALID
SJACT013_D	CAGE1	282394043	6	7373671	MISSENSE	AGCTGTGGCCTTTTCCAGTT	TTTTTTGAGTTGTTGTAGTC	C	G	SOMATIC	VALID
SJACT013_D	LCK	112789546	1	32745562	MISSENSE	CAGACTTTGGCCTAGCACGC	TCATTGAGGACAACGAGTAC	C	T	SOMATIC	VALID
SJACT013_D	CAMKK2	27437015	12	121712112	MISSENSE	CTTGGCCATCGGCCTCCAGG	GCCGGTCCCGCGCCAAGCCG	G	T	SOMATIC	VALID
SJACT014_D	CACNA1C	193788720	12	2743465	MISSENSE	CTGCTCTGCCCCATGCAGCA	TATTTCTGTGATGCATGGAA	C	A	SOMATIC	VALID
SJACT014_D	ENAM	189491628	4	71509817	MISSENSE	ATCCACTAGCTCTACAAGAC	ACACTCCATCCTATGGTCTT	T	A	SOMATIC	VALID
SJACT014_D	OSBPL6	319996735	2	179201107	MISSENSE	AACGTGCACAACTGGCCAGA	TAAAGTGGCAGCCTGGTTAC	G	T	SOMATIC	VALID
SJACT014_D	SYNE2	118918407	14	64679561	MISSENSE	GAAATTACATTAAATACCAA	AAGATTGATCAGCTCATTGT	C	G	SOMATIC	VALID
SJACT014_D	PAK1	-1	11	77090442	INTRON	CTCTGGCATTCCCTGTAAGA	AGACATGCAAGACTAACAGG	G	C	SOMATIC	VALID
SJACT015_D	LRIG1	54607118	3	66467665	NONSENSE	GGCCTTCAGCTGGCTCCCCT	CACGCTGCGAATCTTGTTGT	C	A	SOMATIC	VALID
SJACT016_D	ZNF473	54792148	19	50548922	MISSENSE	AGCCTTATAAGTGTAACGAA	GTGGGAAATCCTTCAGGCAT	C	T	SOMATIC	VALID
SJACT016_D	GCKR	221625433	2	27724096	MISSENSE	CAATCCAGTGAGCATGGCCA	GTGAGCCTTCTGGAATGACT	G	C	SOMATIC	VALID
SJACT016_D	TP53	187830855	17	7578406	MISSENSE	AGCGCTCATGGTGGGGGCAG	GCCTCACAACCTCCGTCATG	C	T	SOMATIC	VALID
SJACT016_D	MATN2	62548860	8	98943641	MISSENSE	GGTGTGGGCCAGGTAGACTT	AACACCTTGAAGTCCATTGG	C	G	SOMATIC	VALID
SJACT016_D	CYP4B1	153218662	1	47276510	MISSENSE	CGGGGAGCCTGGACAAAGTG	TGTCCTGGGCCCACCAGTTC	G	C	SOMATIC	VALID
SJACT017_D	GPR12	4885295	13	27333697	MISSENSE	TCCAATGCCGGCCAGCAGGT	TGCAAGAGCCAGGCTGCCTA	C	T	SOMATIC	VALID
SJACT017_D	FOXN4	166795280	12	109719251	MISSENSE	GATGCTCGGGTCGAGGGCAT	CACCTCAGTGTTCATGTCGG	C	T	SOMATIC	VALID
SJACT017_D	SORCS3	18379346	10	107006994	MISSENSE	CAGAATATTTCCAGTCCCAG	TTTTATCATTCTCTCCTAAT	C	A	SOMATIC	VALID
SJACT017_D	TP53	187830823	17	7577121	MISSENSE	CCCAGGACAGGCACAAACAC	CACCTCAAAGCTGTTCCGTC	G	A	SOMATIC	VALID
SJACT017_D	POLR2A	4505939	17	7415879	MISSENSE	CTTGGAACCAGGGTGCAACC	CTGCCTATGGCGCCTGGTCC	C	T	SOMATIC	VALID
SJACT017_D	AUH	-1	9	94118363	INTRON	AGCAAACAGTTTAATCTTTA	ACTCACCATTTTTATAAGAT	C	A	SOMATIC	VALID
SJACT017_D	PLCL2	163644311	3	17052448	MISSENSE	AATGGTTCAGCACATGAAGA	ACTTTTAGGAGACAAGCTCT	A	T	SOMATIC	VALID
SJACT018_D	NCOA2	-1	8	71044245	INTRON	GCCAAATGGCTGCCTGTAAA	ACAGAAATGTCACCTTGGGC	G	C	SOMATIC	VALID
SJACT018_D	FILIP1	31542634	6	76024920	MISSENSE	TTCAAGGAGCTTTTTTAACC	AGAAAATAAAATATACCTAT	T	C	SOMATIC	VALID
SJACT018_D	BCL11B	21040334	14	99724087	MISSENSE	GAGCAGGTCAGGGTCGGGGC	ACCCACCATCAGCCCCAGGC	C	A	SOMATIC	VALID
SJACT018_D	MYH4	110611903	17	10350353	MISSENSE	AGTGTGCAGAAGTTGCACAC	TTCACTGGCATCCAGAAGCT	G	A	SOMATIC	VALID
SJACT018_D	SGSM2	-1	17	2280371	INTRON	TCCCTCATCCAGGTGAGGCC	GTTGCCACCCATGGGCATGG	G	A	SOMATIC	VALID
SJACT019_D	SLC5A6	256985183	2	27430428	MISSENSE	AACCAGCAGCAGGACGAACA	CACATAGTCCATGATGGAGA	C	A	SOMATIC	VALID
SJACT019_D	ATP1A2	-1	1	160100203	INTRON	TCTCACTGATCCCTTCTGCC	CCCTTTAGGATTCTGTCAAC	C	T	SOMATIC	VALID

SJACT019_D	TMCO6	94536840	5	140023165	MISSENSE	CCAGCCAGGTCAGCAATCCT	TGCTCATTGGCCATGGGGCT	C	G	SOMATIC	VALID
SJACT019_D	RP1L1	117414137	8	10467472	MISSENSE	GCAGTCCTCCTTCTGGCCCT	CTTTAACTTCCTCTAACTGC	T	C	SOMATIC	VALID
SJACT019_D	ERAS	31559833	X	48687949	MISSENSE	GCAGATATGGGCCACCTGGG	CCCTCACCCCGCCCAGCCCC	G	T	SOMATIC	VALID
SJACT019_D	COL1A1	110349772	17	48267373	MISSENSE	GCCACTCACAATGGGGCCAG	GGGTCCAGCGGGTCCGGCAG	G	A	SOMATIC	VALID
SJACT019_D	HDGFRP2	48255931	19	4501214	MISSENSE	CCCACCCAGATCTCTCAGCC	CAGTGAATGGCGAGGCCACA	C	A	SOMATIC	VALID
SJACT019_D	SLC2A12	21553331	6	134349668	MISSENSE	TTAGCAAGGATGCTGAGGTC	TCTCCCCTCTCTTATCCACA	G	C	SOMATIC	VALID
SJACT019_D	IZUMO1	194097475	19	49247731	MISSENSE	CTCTTTTTGGAATCGAGCAA	ATAGGTGGCAAAGGTTTCCT	C	A	SOMATIC	VALID
SJACT019_D	PCDHB7	11036656	5	140553644	MISSENSE	TGGTAACAGAGAAACCTTTG	ATCGAGAGAGGAACACTGAG	G	A	SOMATIC	VALID
SJACT019_D	FOXRED2	156139139	22	36900290	MISSENSE	GTTGGCTTCTTCCAGGAAGA	TTTCGGGGTGACATGGAACT	A	T	SOMATIC	VALID
SJACT019_D	ROS1	19924165	6	117704518	MISSENSE	AGGCTGTGTCTGTAGTACAA	GGAACTTTCCCCATTTAGTC	G	A	SOMATIC	VALID
SJACT019_D	CCDC141	299829223	2	179714877	MISSENSE	TTTCTCAATATATTTCTGTC	TTCTTCCAAACCTGGGGAGG	C	T	SOMATIC	VALID
SJACT019_D	DNMBP	39930351	10	101716063	MISSENSE	AAGAGGCATTTCCCACTCCA	GCCTGGGCTTCTCGGGGGCC	C	G	SOMATIC	VALID
SJACT019_D	SPERT	22749425	13	46287382	MISSENSE	ACCCCTCGCTGCGCGCAGCA	GCCGCCCTGCCCCGGCTGAG	G	C	SOMATIC	VALID
SJACT019_D	EXOC4	82546830	7	132959814	MISSENSE	AGAAGCCTACGAGAAATGTG	CCGTGACCTGGATGAATTGA	A	G	SOMATIC	VALID
SJACT019_D	NCEH1	226423947	3	172353757	NONSENSE	CCAGCACTGTCACCAGAAAT	CAAATTCTGCCTGGATCAAC	G	T	SOMATIC	VALID
SJACT019_D	UNC13B	110611226	9	35399444	MISSENSE	GAGCCATCTTTCCAAACTCA	GGTACTCTGGGTGTGGGGTC	A	T	SOMATIC	VALID
SJACT019_D	PCLO	150378539	7	82387898	MISSENSE	AAGACATGTTTCTTCAATGC	TTTGAGTAGGACTGACCAAA	G	A	SOMATIC	VALID
SJACT019_D	C3	115298678	19	6681972	MISSENSE	CTTGTCCAGGTAGATGATGA	GGTGTTCCTATCGGAGAAGG	G	T	SOMATIC	VALID
SJACT019_D	FMN2	160707881	1	240492425	MISSENSE	AGAAAAGCATGGCCGATCTT	CAAAGACAAGGAAAATGCCA	C	T	SOMATIC	VALID
SJACT019_D	CD200R1	20270365	3	112644004	MISSENSE	TAATAGTAAGGATGATATAT	GAATATATAATTTTGCTGAT	G	T	SOMATIC	VALID
SJACT019_D	GGT5	153266885	22	24622735	MISSENSE	ACTCTGTTGAGAAGTTGAAC	CTGGAGAGAGGTTGGGGCAC	C	A	SOMATIC	VALID
SJACT019_D	HEATR5B	55749742	2	37229671	MISSENSE	GAGACCACCGCTGTCACCTC	TTCTCCCAATACGGTACAGG	C	T	SOMATIC	VALID
SJACT019_D	ALOX15	40316937	17	4544844	MISSENSE	GGGCCACAGTCGCTTCCCGA	CGCCGCCTCCCCGTGCTGGC	G	C	SOMATIC	VALID
SJACT019_D	TNRC6B	241982729	22	40661509	NONSENSE	ACTGGGAGTGTTGGATCTTG	GGTGCAGCTAGGGGGCCTTC	G	A	SOMATIC	VALID
SJACT019_D	TNXB	188528648	6	32053580	MISSENSE	GCTTGCCCCCAGGAGGGACC	CATGAAGTGACAGCTCATAC	C	T	SOMATIC	VALID
SJACT019_D	C3	115298678	19	6681971	MISSENSE	CCTTGTCCAGGTAGATGATG	GGGTGTTCCTATCGGAGAAG	A	G	SOMATIC	VALID
SJACT019_D	C1ORF173	282721063	1	75072578	MISSENSE	TTTTGTCAAGGCCCATTGCA	TAATGCACCTATGAAAAATA	A	G	SOMATIC	VALID
SJACT019_D	C7ORF63	236463164	7	89929338	MISSENSE	GAGAAAGGAGGAAAAAGAAC	AGGAGTAAAACGTGATAAAA	T	A	SOMATIC	VALID
SJACT019_D	LMO7	33598968	13	76375006	MISSENSE	CCTCTGATATCACGTTGAGA	GGGGGCGTGAAGGTGTGTTG	G	T	SOMATIC	VALID
SJACT019_D	ZNF341	40807465	20	32336801	MISSENSE	AGGGGAACATCTTGGTGAGC	ATGATGTGCTCATGTCTGCC	G	A	SOMATIC	VALID
SJACT019_D	TUBA3C	17921993	13	19748095	MISSENSE	AGCTGCCAGGTCCTCGCGGG	CTCAGAGAACTCCCCCTCCT	C	A	SOMATIC	VALID
SJACT019_D	OR1G1	11415034	17	3030478	MISSENSE	GTGGGTGGCATATGGCCACG	AGCAGTCATAGGCCATGACC	T	C	SOMATIC	VALID
SJACT019_D	ACSM4	122937307	12	7463182	MISSENSE	AGCTGACAGCAAAAGACATC	TCTACCGGCTGCGAGCATCC	C	T	SOMATIC	VALID
SJACT019_D	NCAN	118600983	19	19337598	MISSENSE	CCCCAGCCCTAGCGACATGG	GGCAGGCACTGCAGCAAGTT	G	A	SOMATIC	VALID
SJACT019_D	PRICKLE3	7710129	X	49032218	MISSENSE	CTGATGATTCGGAACTGGAA	TGGAGGGCGAGCTGGAGCAA	C	T	SOMATIC	VALID
SJACT019_D	TAS1R2	112789566	1	19167006	MISSENSE	ACTCGTTATTCGGGCAGGCC	GGCATTCATATTCATCTGCA	T	C	SOMATIC	VALID
SJACT019_D	HMCN1	118572606	1	186083963	MISSENSE	TCTTGTAGATATTCCATCTT	GAAAATGGATTCCTTCATAT	G	C	SOMATIC	VALID
SJACT019_D	PRICKLE4	118722347	6	41753106	MISSENSE	GCTGAAGCCAGGGGAGTACG	AGTGTTTGCAGCCCGGGCAG	G	A	SOMATIC	VALID
SJACT019_D	LDHD	37595754	16	75149208	MISSENSE	TGACCTGCTCCACGTTCTGG	GCCACACCACAGCATCAGGA	G	A	SOMATIC	VALID
SJACT019_D	DCAF12L2	61966713	X	125298526	MISSENSE	GCGTCCATCCTTAACTCCAG	GGCCTGCGTAGTTCCCATGG	A	T	SOMATIC	VALID
SJACT019_D	PTH2R	4826954	2	209309590	NONSENSE	TCGGACACCAAATACCTGTG	GGCTTCATCTTGATAGGCTG	G	A	SOMATIC	VALID

SJACT019_D	CD177	110735433	19	43859867	MISSENSE	TATGGAAGGCTGTCTGGAGG	GACAACAGAAGAGATCTGCC	G	A	SOMATIC	VALID
SJACT019_D	LRBA	-1	4	151837552	INTRON	TGACTCAAGAAGATCATGTA	CTTTTGTGGCTTGAAATCAA	C	A	SOMATIC	VALID
SJACT019_D	ENAM	189491628	4	71501580	MISSENSE	ATTTGGAAATGGGCTATTCC	CTATCAACAACCACCATGGC	C	T	SOMATIC	VALID
SJACT019_D	CA6	-1	1	9030921	INTRON	CATAATGCACTCACGTTGCC	CCAGGTTTGGAAGCTGGAGA	C	T	SOMATIC	VALID
SJACT019_D	MAST2	112363080	1	46472028	MISSENSE	CGTACCAGATGAGGAAGGAC	GCAGTCCCCAGCCATGCGGC	G	A	SOMATIC	VALID
SJACT020_D	PCDHB7	11036656	5	140554584	MISSENSE	GGCGGCCCCGGTGGGTCGCT	CTCGGTGCCTGAGGGCCCCT	G	T	SOMATIC	VALID
SJACT020_D	FAM59A	12232415	18	29867478	MISSENSE	CGTGGTTGTGGCCAGAGCAC	GACCCTTCTTGGGGCTCTTG	C	A	SOMATIC	VALID
SJACT020_D	NCKIPSD	-1	3	48719991	INTRON	TGGTGGATCAGCTTCCTGAT	GAAGGACAGGAAGACTATTG	G	A	SOMATIC	VALID
SJACT020_D	SETBP1	194294554	18	42618502	MISSENSE	ACAGCAGTGCATAGTAAGAA	GAAGGCTCAGTGCCCACCAT	C	A	SOMATIC	VALID
SJACT020_D	ARNT	309747071	1	150785677	MISSENSE	CTCAGGCTGGCCAGGTTGCT	TGCTGGCGGTTGTTGAACAT	G	C	SOMATIC	VALID
SJACT020_D	RBM23	116734696	14	23371084	MISSENSE	GGAGGCAAGGTTCAGGGCTG	ACTCAGAGCTAGAACAAAGA	G	C	SOMATIC	VALID
SJACT020_D	ZNF676	111548668	19	22364382	MISSENSE	ACTCTTGGGAAAAATGAGAA	ATATAACTGAAAAGAAATAA	C	G	SOMATIC	VALID
SJACT020_D	BAK1	4502363	6	33543190	MISSENSE	GATGTCGTCCCCGATGATGG	GAGCTGCCGTCCCACCTGCC	C	T	SOMATIC	VALID
SJACT020_D	ZNF621	38348284	3	40573577	MISSENSE	TAAAGCAGGAAGCCTCTGAA	AAACAGAGTTGCACAGAATG	G	A	SOMATIC	VALID
SJACT020_D	CD226	171460997	18	67614293	MISSENSE	CTGATGTATGCCAAAGCACC	CTTCACATAGAGCTGAAATA	T	A	SOMATIC	VALID
SJACT021_D	ATRX	20336209	X	76814152	MISSENSE	AAACCTACCTGAGCTAAGAA	CTATATACATAAACAGGCTT	C	A	SOMATIC	VALID
SJACT021_D	CEACAM6	40255013	19	42265879	MISSENSE	TTATTCTCTTTCCTCCAGAT	GCCCAGATGGCCCCACCATT	G	A	SOMATIC	VALID
SJACT021_D	TRPV5	17505200	7	142625893	MISSENSE	ATGTCCATCGTAGGACAGCA	CAGGTTGTACATCTGGCAGG	G	T	SOMATIC	VALID
SJACT021_D	RYR2	112799847	1	237819164	MISSENSE	ACTGGCACTGCCTTGCCTGA	TGCAGTTGCGGGAGCTTTGC	G	T	SOMATIC	VALID
SJACT021_D	FAT4	165932370	4	126320017	MISSENSE	TGGATCTCACGGTAGAGGAG	ACATTGGAGATGGCTCTAAG	A	C	SOMATIC	VALID
SJACT021_D	LRP1B	93102379	2	141356399	MISSENSE	CATTCCAGTTGGTCCAAAAC	TTAAACTAATTAAAATGAAA	A	C	SOMATIC	VALID
SJACT021_D	TMEM132D	171460922	12	130184857	MISSENSE	CCCGGCGCTGCGGTCGTCCC	GTCTCTGCCCATGATGTGGA	A	G	SOMATIC	VALID
SJACT021_D	NPR1	167830411	1	153660565	MISSENSE	GACTCGGGGTGAGCAGCCCC	CTTCCGGCCCTCCCTGGCCC	C	G	SOMATIC	VALID
SJACT021_D	FAT3	148886692	11	92538349	MISSENSE	TCGAGGAAGGTTTGCTCTGG	CCTGGTGCAAAGTGAGTGGA	G	T	SOMATIC	VALID
SJACT021_D	MAP1B	153945728	5	71496133	MISSENSE	GCACGTGGGGAAGAGAAAGA	AAGGAGACCAAGAATGCTGC	C	A	SOMATIC	VALID
SJACT021_D	KIAA0913	122114658	10	75545788	MISSENSE	GCGCAAACAGTCAGCGGGGC	CAATTCCCCCACTGGCGGCG	C	A	SOMATIC	VALID
SJACT021_D	ZIC5	118766337	13	100617848	MISSENSE	AGGGGGCGCCCACTGGAGTC	CCACTGATGAGTAACCAAGG	C	A	SOMATIC	VALID
SJACT021_D	THBS4	31543806	5	79373980	MISSENSE	CACCCTGACCGACTTCAGGG	TTACCAGACCGTGGTCCTGG	C	A	SOMATIC	VALID
SJACT021_D	PIH1D2	130499472	11	111943895	MISSENSE	CAGACCTTTTGAGGATGTCT	CATGACTTATGAGTGGTGAA	C	G	SOMATIC	VALID
SJACT021_D	FAM123C	157427667	2	131520152	MISSENSE	CTATTCCACATTCGGAGAAA	AAGACTGAGGACTTGGCCTC	C	G	SOMATIC	VALID
SJACT021_D	DHX38	17999539	16	72143318	MISSENSE	GCCCTTCTGCCCGCAGGAGT	TATGCAGTGTGTGACCGCTG	A	G	SOMATIC	VALID
SJACT021_D	NLRP13	110624785	19	56407355	MISSENSE	TGTCGACTTTTTCAAAGCCT	ACATAGCATCTTGACACCAT	T	C	SOMATIC	VALID
SJACT021_D	SLC26A7	-1	8	92378804	INTRON	GAATCTGTTTTTCTCCTCCA	AAGGAAACCCTGCAGCAGGT	A	G	SOMATIC	VALID
SJACT021_D	PHC3	148612879	3	169854404	MISSENSE	TTTTTGGTGGACCATTCTGT	AGCTAGATAATACACCCAAC	G	A	SOMATIC	VALID
SJACT021_D	MED12	110347429	X	70357207	MISSENSE	AGCAACCTGCGGTGCCCCAA	GACAGCGCCTTCGCCAACAG	G	C	SOMATIC	VALID
SJACT021_D	WDR46	256773176	6	33256583	MISSENSE	ATCAGGTCCCACGCTCACCC	GGACAAGCCGCGCTGGGACT	C	A	SOMATIC	VALID
SJACT021_D	GRIA2	-1	4	158262408	INTRON	TACAAATCCATTTCATACTT	TTATTAGATCCCTCTCTGGG	G	T	SOMATIC	VALID
SJACT022_R	ATG2A	239047271	11	64674810	MISSENSE	CTGCAAGTGAAGACTTGGGG	CTCAGGGGCAGCGGCCTGTG	C	T	SOMATIC	VALID
SJACT023_D	DOC2A	47078261	16	30020593	MISSENSE	CATTGAAATCCATGGGCTTG	GGCCCTGGAGAGGAGGGCAG	A	T	SOMATIC	VALID
SJACT023_D	N6AMT2	28372547	13	21331704	MISSENSE	TGCTAAGGCATGGGCAGAAA	CTGGGGTGTCTCATCATCTT	G	T	SOMATIC	VALID
SJACT023_D	AXIN1	27501450	16	396406	MISSENSE	CTGTCCTCGTATATTCCAAA	AAATATCAGACTTAAGGAAG	T	C	SOMATIC	VALID

SJACT023_D	DGKK	62000702	X	50127721	MISSENSE	GACAGAAAGATCCTTACGGC	TCGTGGGCTTGTCTGGTTAA	G	A	SOMATIC	VALID
SJACT023_D	CCT8	48762932	21	30442582	MISSENSE	AATTACCATTTGGTCCATAT	CTGTACGAGTGGTTTGGGCA	G	A	SOMATIC	VALID
SJACT023_D	ANGPTL5	187960047	11	101765690	MISSENSE	AAAAATTATCATATGATGCA	AAGCAAGAGTGTCATCTTCA	T	C	SOMATIC	VALID
SJACT023_D	ZNF512	40217790	2	27805983	MISSENSE	GGCGTGGAGAGGGAGTGATG	CTTCCAGACTCGGTGCTGTA	T	C	SOMATIC	VALID
SJACT023_D	COL6A5	183583553	3	130150489	MISSENSE	GGTTTCCTATAACTCAGGCA	CAGCTATCTCATCCGCTGGT	C	A	SOMATIC	VALID
SJACT023_D	GPR174	14211849	X	78426918	MISSENSE	AAATATGACCTGTACATCAG	ATTGCTGGCTGGCTGATCAT	C	A	SOMATIC	VALID
SJACT023_D	KIAA1462	148806881	10	30316510	MISSENSE	CACTCTCCTCACTGCTGCTG	TGCTGCTGCTGCTGCTACTG	C	T	SOMATIC	VALID
SJACT024_D	LRP2	126012573	2	170081819	MISSENSE	GTAGTATTATGGAATCATTA	CTCGATTGACTGAGTTCTAG	C	A	SOMATIC	VALID
SJACT025_D	VASP	-1	19	46027404	INTRON	AGCACAACCTTGCCAAGGTA	GCCATCGGTCCTGGGGCCCT	G	A	SOMATIC	VALID
SJACT025_D	CACHD1	110578649	1	65141112	MISSENSE	GACGAACCTTGTGCATGGCA	CCACTGTTCCAAATACAGAT	G	A	SOMATIC	VALID
SJACT026_D	ITPR1	269954694	3	4825536	MISSENSE	AAGAACTTCAGAGCATGCTG	AACCTGGTGGCCAAGTGGAC	A	C	SOMATIC	VALID
SJACT026_D	PGBD1	296080757	6	28269786	NONSENSE	GTTGTGATGCTGATAACGAA	AAATCCCTCAGATAAGTCAA	G	T	SOMATIC	VALID
SJACT027_D	TMEM111	-1	3	10015399	INTRON	GAAATGGGACCTTGGCTGCA	AGAAGAAAAAGTTCACAATC	G	A	SOMATIC	VALID

Chr=chromosome, pos=position

Supplementary Table 3c Validated coding region indels in the WGS and WES cohorts

Sample	Gene	protein_gi	variant	chr	pos	class	flanking_region_5	flanking_region_3	Non-ref Allele Counts	Ref Allele Counts	Origin	Validation status
SJACT001_D	FMNL3	119120874	FMNL3_C537fs	12	50045226	FRAMESHIFT	GGGCTGGGGG	CACTTGTCTG	A	-	SOMATIC	VALID
SJACT002_D	ATG2A	239047271	ATG2A_M412fs	11	64678740	FRAMESHIFT	GGTTGGGGGC	ATCTTGCCTG	C	-	SOMATIC	VALID
SJACT002_D	DSG1	119703744	DSG1_F803fs	18	28934567	FRAMESHIFT	TCCCCACATT	CGGCACTACC	T	-	SOMATIC	VALID
SJACT003_D	CTNNB1	4503131	CTNNB1_S45>YTAPS	3	41266137	PROTEININS	ACAGCTCCTT	CTCTGAGTGG	-	ACACAGCTCCTT	SOMATIC	VALID
SJACT005_D	UNKL	301129263	UNKL_R62fs	16	1463948	FRAMESHIFT	GGGGCCTGCG	CGCCGCTGGT	G	-	SOMATIC	VALID
SJACT005_D	DGKI	4758156	DGKI_A990fs	7	137082135	FRAMESHIFT	TTCACTGTCT	CCATATCCAA	G	-	SOMATIC	VALID
SJACT005_D	ZFHX4	291167749	ZFHX4_T128_G129fs	8	77616707	FRAMESHIFT	AAAATCTAAC	GGGAGATCGT	AG	-	SOMATIC	VALID
SJACT005_D	TBC1D12	148806902	TBC1D12_E63_T64fs	10	96162559	FRAMESHIFT	AGGAGGAGGA	CGCCGCCTCG	GA	-	SOMATIC	VALID
SJACT006_D	PODXL	66277202	PODXL_I74_L75fs	7	131196070	FRAMESHIFT	ACCGAGGCCA	TTCGTTGGCC	AGAT	-	SOMATIC	VALID
SJACT060_D	LARP4B	57634536	LARP4B_T163fs	10	890938	FRAMESHIFT	GAATTCCAAT	TTTTTTTAAG	G	-	SOMATIC	VALID
SJACT060_D	ZNF787	152963637	ZNF787_D363del	19	56599452	PROTEINDEL	CGTCGTCGTC	CTCCTCCTCC	GTC	-	SOMATIC	VALID
SJACT063_D	TTL	24308516	TTL_G50fs	2	113240071	FRAMESHIFT	TGCCCTTCGG	AGACTGGGTG	G	-	SOMATIC	VALID
SJACT069_D	SYTL2	46255062	SYTL2_L821fs	11	85431966	FRAMESHIFT	ACTCCTTTCC	AGTTTTCAAA	AA	-	SOMATIC	VALID
SJACT069_D	ARFGAP2	31543983	ARFGAP2_A2fs	11	47198399	FRAMESHIFT	TCGGCTCCGC	GCCATTTTCT	C	-	SOMATIC	VALID
SJACT070_D	DOK5	29544726	DOK5_R115_N117fs	20	53205279	FRAMESHIFT	TGTAGGAACA	ATGACATCAG	CGGATCA	-	SOMATIC	VALID
SJACT009_D	CYP17A1	4503195	CYP17A1_D155fs	10	104594743	FRAMESHIFT	TGGCCAGCAT	ATCACACAAT	-	T	SOMATIC	VALID
SJACT010_D	DNAJC18	22749377	DNAJC18_N161fs	5	138761938	FRAMESHIFT	CCTGTAATAA	TTATAAGGTC	-	A	SOMATIC	VALID
SJACT012_D	C11ORF9	188528652	C11orf9_Q832fs	11	61548439	FRAMESHIFT	CAGGTCCAGC	AGAGCTTTGG	C	-	SOMATIC	VALID
SJACT012_D	CYP11B1	61743918	CYP11B1_R412fs	8	143956536	FRAMESHIFT	GGCGGGGTTG	ACCCAGAGAG	CG	-	SOMATIC	VALID
SJACT012_D	MAP1B	153945728	MAP1B_S1631fs	5	71494074	FRAMESHIFT	ACTGCAAAGT	AGGACACCCG	CC	-	SOMATIC	VALID
SJACT012_D	MYH3	98986453	MYH3_K1110fs	17	10542201	FRAMESHIFT	TGCAACTCTT	GATTTTCTTC	T	-	SOMATIC	VALID
SJACT012_D	LTN1	231573214	LTN1_Y268fs	21	30353586	FRAMESHIFT	TACAACCCGG	AGAATTTAGC	T	-	SOMATIC	VALID
SJACT012_D	CNTN3	75709184	CNTN3_G15fs	3	74570219	FRAMESHIFT	CTCCTAAGCA	CCAATGAATG	G	-	SOMATIC	VALID
SJACT012_D	HSD17B2	4504503	HSD17B2_L67fs	16	82069228	FRAMESHIFT	GTCATGCTTC	TCATGTATAC	C	-	SOMATIC	VALID
SJACT012_D	ANXA4	4502105	ANXA4_K71fs	2	70033537	FRAMESHIFT	ACGACCTGAA	TCAGAACTGA	G	-	SOMATIC	VALID
SJACT012_D	PPP1R15A	157674363	PPP1R15A_E261fs	19	49377272	FRAMESHIFT	AGGTCCTGGG	AGTATCGTTC	-	T	SOMATIC	VALID
SJACT012_D	COL4A3	89142730	COL4A3_G910fs	2	228148554	FRAMESHIFT	TGGGAACCCA	GGCACACCAG	-	A	SOMATIC	VALID
SJACT012_D	DOCK9	194239705	DOCK9_V1114fs	13	99515749	FRAMESHIFT	AACAGTCCCA	CCAAGAAGTG	-	A	SOMATIC	VALID
SJACT012_D	SLC26A8	301601599	SLC26A8_G873fs	6	35911972	FRAMESHIFT	TAGGTCCAGA	CCCAGCCCAG	-	A	SOMATIC	VALID
SJACT019_D	VWA3B	118918435	VWA3B_P262fs	2	98744784	FRAMESHIFT	TTGGAGATCC	GTGTCCAGTC	C	-	SOMATIC	VALID
SJACT019_D	NACA	163965366	NACA_V212_Y214fs	12	57114672	FRAMESHIFT	TCACACAGTG	ACAGTACTGA	GTAAGGA	-	SOMATIC	VALID
SJACT023_D	CNTN3	75709184	CNTN3_N90fs	3	74535697	FRAMESHIFT	CAATTTCTGT	GGGATTAATA	T	-	SOMATIC	VALID
SJACT024_D	FOSL2	4885245	FOSL2_P208_R210fs	2	28634958	FRAMESHIFT	GGCTGCAGCC	AGTGGGGGTG	CATGCGC	-	SOMATIC	VALID

Chr=chromosome, pos=position

Supplementary Table 3d Validated SVs in the WGS cohort

Sample	chr_a	pos	orig_a	locus_a softclips	chr_b	pos_b	ori_b	locus_b softclips	translocation type	origin	translocation valstat
SJACT001_D	1	180972298	+	4	1	181051316	+	5	DEL	SOMATIC	VALID
SJACT001_D	1	227439548	+	1	1	227450915	+	2	DEL	SOMATIC	VALID
SJACT001_D	10	4413082	+	6	9	109754600	+	4	CTX	SOMATIC	VALID
SJACT001_D	10	4416180	+	8	9	109755782	-	8	CTX	SOMATIC	VALID
SJACT001_D	10	4416195	-	12	10	4415923	+	6	ITX	SOMATIC	VALID
SJACT001_D	10	4416276	+	3	9	112899879	+	3	CTX	SOMATIC	VALID
SJACT001_D	10	4416931	+	7	5	109539906	-	4	CTX	SOMATIC	VALID
SJACT001_D	10	4418300	+	3	9	112899786	-	5	CTX	SOMATIC	VALID
SJACT001_D	10	9573776	-	1	4	156790013	+	2	CTX	SOMATIC	VALID
SJACT001_D	10	13984001	+	5	11	85121876	-	3	CTX	SOMATIC	VALID
SJACT001_D	10	15411941	+	5	9	136138871	+	1	CTX	SOMATIC	VALID
SJACT001_D	10	43830652	+	2	X	150996715	+	5	CTX	SOMATIC	VALID
SJACT001_D	10	56319884	+	5	10	56872242	+	1	DEL	SOMATIC	VALID
SJACT001_D	11	48985054	+	2	11	49018573	+	3	DEL	SOMATIC	VALID
SJACT001_D	12	21430548	+	4	9	106979010	+	4	CTX	SOMATIC	VALID
SJACT001_D	12	31437529	+	6	12	28298987	+	3	INS	SOMATIC	VALID
SJACT001_D	12	112581747	+	4	12	112618666	+	2	DEL	SOMATIC	VALID
SJACT001_D	13	60720369	+	3	13	60737151	+	5	DEL	SOMATIC	VALID
SJACT001_D	14	45499622	+	2	14	45586980	+	2	DEL	SOMATIC	VALID
SJACT001_D	14	64226170	+	1	5	147721980	+	5	CTX	SOMATIC	VALID
SJACT001_D	14	82064940	+	1	14	82746948	+	4	DEL	SOMATIC	VALID
SJACT001_D	15	26488166	+	6	X	99549557	-	3	CTX	SOMATIC	VALID
SJACT001_D	16	2941766	+	2	16	2971375	+	5	DEL	SOMATIC	VALID
SJACT001_D	16	69183631	+	2	16	69213522	+	2	DEL	SOMATIC	VALID
SJACT001_D	18	2097745	+	6	18	2102310	+	9	DEL	SOMATIC	VALID
SJACT001_D	18	3355264	+	11	9	71945582	-	7	CTX	SOMATIC	VALID
SJACT001_D	18	4047675	+	12	9	71508722	+	15	CTX	SOMATIC	VALID
SJACT001_D	18	4207561	+	11	2	148770780	+	9	CTX	SOMATIC	VALID
SJACT001_D	18	56066594	+	5	18	56095311	+	4	DEL	SOMATIC	VALID
SJACT001_D	19	10064504	+	6	5	155924819	+	6	CTX	SOMATIC	VALID
SJACT001_D	19	24383030	+	3	11	16990486	+	4	CTX	SOMATIC	VALID
SJACT001_D	19	40427819	+	5	19	40439365	+	2	DEL	SOMATIC	VALID
SJACT001_D	19	45369719	+	2	19	45399065	-	8	ITX	SOMATIC	VALID
SJACT001_D	19	45403291	-	7	19	45378990	+	3	ITX	SOMATIC	VALID
SJACT001_D	2	7694281	+	5	2	7694376	+	5	DEL	SOMATIC	VALID
SJACT001_D	2	12545897	+	4	2	12554675	+	3	DEL	SOMATIC	VALID
SJACT001_D	2	20714245	+	2	2	20696068	+	4	INS	SOMATIC	VALID

SJACT001_D	2	56288321	+	3	2	56318911	+	0	DEL	SOMATIC	VALID
SJACT001_D	2	144579852	+	11	9	74511964	-	16	CTX	SOMATIC	VALID
SJACT001_D	2	144584599	+	1	9	109452813	+	8	CTX	SOMATIC	VALID
SJACT001_D	2	146617122	-	13	2	145715013	+	22	ITX	SOMATIC	VALID
SJACT001_D	2	146636813	+	15	10	1428098	+	25	CTX	SOMATIC	VALID
SJACT001_D	2	146973237	-	9	2	146498995	+	3	ITX	SOMATIC	VALID
SJACT001_D	2	147825357	+	6	5	119035332	-	12	CTX	SOMATIC	VALID
SJACT001_D	2	147989056	+	12	2	148981937	+	22	DEL	SOMATIC	VALID
SJACT001_D	2	148684657	+	2	12	20725942	+	4	CTX	SOMATIC	VALID
SJACT001_D	2	148994604	+	3	4	191040628	+	2	CTX	SOMATIC	VALID
SJACT001_D	2	149173733	+	9	6	53323286	+	2	CTX	SOMATIC	VALID
SJACT001_D	2	149288888	+	3	9	81832627	-	4	CTX	SOMATIC	VALID
SJACT001_D	2	149307905	+	10	2	144578309	+	16	INS	SOMATIC	VALID
SJACT001_D	2	152891600	+	22	2	152942323	+	10	DEL	SOMATIC	VALID
SJACT001_D	2	152944437	+	14	2	152534090	+	21	INS	SOMATIC	VALID
SJACT001_D	2	154713907	+	23	2	154980022	-	17	ITX	SOMATIC	VALID
SJACT001_D	2	169046825	+	4	2	168831043	-	1	ITX	SOMATIC	VALID
SJACT001_D	2	169058810	-	8	2	168833456	+	4	ITX	SOMATIC	VALID
SJACT001_D	2	215619500	+	5	2	215658693	+	6	DEL	SOMATIC	VALID
SJACT001_D	3	4732301	+	2	3	4875721	+	2	DEL	SOMATIC	VALID
SJACT001_D	3	30691351	+	4	3	30765723	+	5	DEL	SOMATIC	VALID
SJACT001_D	3	59849484	+	3	3	60963541	+	6	DEL	SOMATIC	VALID
SJACT001_D	3	142721448	+	1	3	142721369	+	2	INS	SOMATIC	VALID
SJACT001_D	3	155489912	+	1	3	155587382	+	2	DEL	SOMATIC	VALID
SJACT001_D	3	174736220	+	0	3	175483857	+	3	DEL	SOMATIC	VALID
SJACT001_D	3	174740291	+	3	3	174750352	+	3	DEL	SOMATIC	VALID
SJACT001_D	3	188314357	+	2	3	188539530	+	5	DEL	SOMATIC	VALID
SJACT001_D	4	107582372	+	0	X	17785560	+	3	CTX	SOMATIC	VALID
SJACT001_D	4	112123098	-	1	4	105112751	+	3	ITX	SOMATIC	VALID
SJACT001_D	4	151185563	+	4	4	151867254	+	7	DEL	SOMATIC	VALID
SJACT001_D	4	160857178	+	2	5	128306861	-	2	CTX	SOMATIC	VALID
SJACT001_D	4	172923106	+	5	9	108839956	+	4	CTX	SOMATIC	VALID
SJACT001_D	4	182327166	+	3	4	183693077	+	5	DEL	SOMATIC	VALID
SJACT001_D	4	183694622	+	4	4	183720098	+	0	DEL	SOMATIC	VALID
SJACT001_D	5	78171056	+	2	5	104034867	+	3	DEL	SOMATIC	VALID
SJACT001_D	5	78215568	+	2	5	104042873	-	3	ITX	SOMATIC	VALID
SJACT001_D	5	100035672	+	2	5	100082178	+	1	DEL	SOMATIC	VALID
SJACT001_D	5	102551532	+	4	5	128447860	+	6	DEL	SOMATIC	VALID
SJACT001_D	5	104100702	+	3	5	162174803	+	5	DEL	SOMATIC	VALID
SJACT001_D	5	104122993	+	6	5	162208549	+	3	DEL	SOMATIC	VALID
SJACT001_D	5	104122993	+	6	5	162208585	+	1	DEL	SOMATIC	VALID

SJACT001_D	5	104147366	+	6	5	104043604	+	2	INS	SOMATIC	VALID
SJACT001_D	5	104166280	+	2	5	131512574	+	3	DEL	SOMATIC	VALID
SJACT001_D	5	109543449	+	12	9	109458693	-	3	CTX	SOMATIC	VALID
SJACT001_D	5	109764103	+	10	9	114171796	+	5	CTX	SOMATIC	VALID
SJACT001_D	5	113072634	+	3	5	113075655	+	0	DEL	SOMATIC	VALID
SJACT001_D	5	113090345	+	2	5	122871594	+	1	DEL	SOMATIC	VALID
SJACT001_D	5	113873250	+	2	5	58261258	-	1	ITX	SOMATIC	VALID
SJACT001_D	5	116987284	+	5	9	109452804	-	8	CTX	SOMATIC	VALID
SJACT001_D	5	118952904	-	6	5	109777053	+	3	ITX	SOMATIC	VALID
SJACT001_D	5	128437646	+	7	5	104160624	+	4	INS	SOMATIC	VALID
SJACT001_D	5	128458927	+	4	5	104141771	+	3	INS	SOMATIC	VALID
SJACT001_D	5	128910341	+	7	5	128436116	+	4	INS	SOMATIC	VALID
SJACT001_D	5	129286099	-	4	5	78190116	+	2	ITX	SOMATIC	VALID
SJACT001_D	5	130607909	+	4	5	130711885	+	1	DEL	SOMATIC	VALID
SJACT001_D	5	131514679	+	4	5	162083635	+	9	DEL	SOMATIC	VALID
SJACT001_D	5	140433333	+	5	2	151330635	-	1	CTX	SOMATIC	VALID
SJACT001_D	5	144934519	+	5	5	144969126	+	3	DEL	SOMATIC	VALID
SJACT001_D	5	144969312	+	0	5	144966812	+	7	INS	SOMATIC	VALID
SJACT001_D	5	146977284	-	6	2	151730465	+	4	CTX	SOMATIC	VALID
SJACT001_D	5	151528520	+	4	5	155584266	-	1	ITX	SOMATIC	VALID
SJACT001_D	5	153480199	-	5	5	62388175	+	2	ITX	SOMATIC	VALID
SJACT001_D	5	156418073	+	2	5	164427475	+	5	DEL	SOMATIC	VALID
SJACT001_D	5	159642789	-	4	5	166997568	+	3	ITX	SOMATIC	VALID
SJACT001_D	5	162092096	+	6	5	162186667	+	4	DEL	SOMATIC	VALID
SJACT001_D	5	162096550	-	4	5	104112713	+	5	ITX	SOMATIC	VALID
SJACT001_D	5	162158811	-	2	5	102542780	+	3	ITX	SOMATIC	VALID
SJACT001_D	5	162179330	+	8	5	128923444	+	5	INS	SOMATIC	VALID
SJACT001_D	5	162193187	+	6	5	162210267	-	6	ITX	SOMATIC	VALID
SJACT001_D	5	165408583	+	4	5	103607975	-	1	ITX	SOMATIC	VALID
SJACT001_D	5	165544574	-	3	5	103608006	+	3	ITX	SOMATIC	VALID
SJACT001_D	5	166384271	+	9	5	128878244	+	7	INS	SOMATIC	VALID
SJACT001_D	5	166413902	+	2	5	167307972	-	2	ITX	SOMATIC	VALID
SJACT001_D	5	166745018	+	2	5	159635336	-	1	ITX	SOMATIC	VALID
SJACT001_D	5	168508127	-	2	5	109539681	+	5	ITX	SOMATIC	VALID
SJACT001_D	5	168508131	+	12	9	109456041	-	4	CTX	SOMATIC	VALID
SJACT001_D	5	168536893	+	17	9	109457298	-	6	CTX	SOMATIC	VALID
SJACT001_D	5	171125069	+	9	2	144564918	+	12	CTX	SOMATIC	VALID
SJACT001_D	5	173073995	+	0	5	173065973	+	3	INS	SOMATIC	VALID
SJACT001_D	6	20550638	+	6	6	20755491	+	4	DEL	SOMATIC	VALID
SJACT001_D	6	20562525	+	6	6	20709210	-	8	ITX	SOMATIC	VALID
SJACT001_D	6	42593089	+	4	6	42592618	+	6	INS	SOMATIC	VALID

SJACT001_D	6	141103411	-	0	5	169425162	+	4	CTX	SOMATIC	VALID
SJACT001_D	7	20123031	+	3	7	20128303	+	3	DEL	SOMATIC	VALID
SJACT001_D	7	32593896	+	8	2	104170361	+	4	CTX	SOMATIC	VALID
SJACT001_D	7	32796784	-	4	7	32746609	+	5	ITX	SOMATIC	VALID
SJACT001_D	7	40026358	+	3	7	40258546	+	2	DEL	SOMATIC	VALID
SJACT001_D	7	130573997	+	4	7	130712356	+	0	DEL	SOMATIC	VALID
SJACT001_D	7	146459677	+	2	7	146765152	+	5	DEL	SOMATIC	VALID
SJACT001_D	8	14525647	+	7	8	14598752	+	3	DEL	SOMATIC	VALID
SJACT001_D	8	26203086	+	2	8	26204446	+	2	DEL	SOMATIC	VALID
SJACT001_D	8	26318574	+	3	8	26369869	+	6	DEL	SOMATIC	VALID
SJACT001_D	8	36996358	+	2	8	36995864	+	6	INS	SOMATIC	VALID
SJACT001_D	8	89142164	+	0	8	89186841	+	4	DEL	SOMATIC	VALID
SJACT001_D	9	71879256	-	5	18	4043422	+	13	CTX	SOMATIC	VALID
SJACT001_D	9	73737941	-	16	18	3349542	+	9	CTX	SOMATIC	VALID
SJACT001_D	9	74542095	+	10	2	150625555	+	10	CTX	SOMATIC	VALID
SJACT001_D	9	74557828	+	10	9	74541415	+	3	INS	SOMATIC	VALID
SJACT001_D	9	74670390	-	11	9	74556144	+	6	ITX	SOMATIC	VALID
SJACT001_D	9	76556488	-	1	5	112142539	+	5	CTX	SOMATIC	VALID
SJACT001_D	9	79980035	+	4	5	149129315	+	4	CTX	SOMATIC	VALID
SJACT001_D	9	81433219	+	7	18	5271801	+	3	CTX	SOMATIC	VALID
SJACT001_D	9	81744132	-	4	9	81404892	+	3	ITX	SOMATIC	VALID
SJACT001_D	9	81888476	+	3	9	81909928	+	4	DEL	SOMATIC	VALID
SJACT001_D	9	96242165	+	3	9	96285580	+	0	DEL	SOMATIC	VALID
SJACT001_D	9	103026231	+	2	19	54188069	+	3	CTX	SOMATIC	VALID
SJACT001_D	9	109746687	-	3	5	171123885	+	4	CTX	SOMATIC	VALID
SJACT001_D	9	109754573	+	12	9	114163013	+	17	DEL	SOMATIC	VALID
SJACT001_D	9	112903266	+	3	5	171332905	+	3	CTX	SOMATIC	VALID
SJACT001_D	9	114164370	+	4	9	114165394	-	5	ITX	SOMATIC	VALID
SJACT001_D	9	114164378	-	10	9	109456650	+	8	ITX	SOMATIC	VALID
SJACT001_D	9	114166097	+	8	5	128244618	+	10	CTX	SOMATIC	VALID
SJACT001_D	9	114166133	-	7	9	109754608	+	4	ITX	SOMATIC	VALID
SJACT001_D	9	114171733	+	9	9	109458481	+	7	INS	SOMATIC	VALID
SJACT001_D	9	114194061	-	2	19	22031976	+	3	CTX	SOMATIC	VALID
SJACT001_D	9	140224513	+	3	9	96364950	+	4	INS	SOMATIC	VALID
SJACT001_D	X	12737423	+	6	X	54099683	-	4	ITX	SOMATIC	VALID
SJACT001_D	X	20011215	+	12	X	31268649	+	2	DEL	SOMATIC	VALID
SJACT001_D	X	22211836	+	2	X	125527950	+	1	DEL	SOMATIC	VALID
SJACT001_D	X	22228315	-	2	15	22142865	+	2	CTX	SOMATIC	VALID
SJACT001_D	X	30602748	+	2	X	55229884	+	2	DEL	SOMATIC	VALID
SJACT001_D	X	43342534	-	1	X	136831442	+	4	ITX	SOMATIC	VALID
SJACT001_D	X	43342817	+	0	X	108207988	+	6	DEL	SOMATIC	VALID

SJACT001_D	X	55506672	+	5	X	14064012	+	4	INS	SOMATIC	VALID
SJACT001_D	X	108328293	+	3	15	26903185	+	4	CTX	SOMATIC	VALID
SJACT001_D	X	128399060	+	3	15	20464056	+	4	CTX	SOMATIC	VALID
SJACT001_D	X	148625001	-	1	X	22206261	+	3	ITX	SOMATIC	VALID
SJACT002_D	1	27474313	+	3	1	27559424	+	0	DEL	SOMATIC	VALID
SJACT002_D	1	27560421	+	4	6	53517706	-	6	CTX	SOMATIC	VALID
SJACT002_D	1	29403212	+	1	1	74131330	+	3	DEL	SOMATIC	VALID
SJACT002_D	1	29428011	+	4	7	142157153	-	0	CTX	SOMATIC	VALID
SJACT002_D	1	31482784	-	4	15	90903385	+	9	CTX	SOMATIC	VALID
SJACT002_D	1	43609380	+	4	1	52794121	+	4	DEL	SOMATIC	VALID
SJACT002_D	1	93587567	+	4	3	15099299	+	1	CTX	SOMATIC	VALID
SJACT002_D	1	116935472	+	1	1	93445595	+	5	INS	SOMATIC	VALID
SJACT002_D	1	174120285	+	1	1	174713379	+	5	DEL	SOMATIC	VALID
SJACT002_D	1	209809353	+	2	1	211869530	-	2	ITX	SOMATIC	VALID
SJACT002_D	1	211767860	-	0	1	209728255	+	3	ITX	SOMATIC	VALID
SJACT002_D	1	226031642	+	5	1	225939128	+	1	INS	SOMATIC	VALID
SJACT002_D	1	242081064	-	9	1	151158591	+	2	ITX	SOMATIC	VALID
SJACT002_D	10	6431494	+	4	10	6430930	+	4	INS	SOMATIC	VALID
SJACT002_D	10	21513518	+	7	10	21342115	+	5	INS	SOMATIC	VALID
SJACT002_D	10	73815806	+	2	10	50497297	+	4	INS	SOMATIC	VALID
SJACT002_D	10	89451896	+	7	11	73678401	+	3	CTX	SOMATIC	VALID
SJACT002_D	10	89473391	+	5	10	104211486	-	3	ITX	SOMATIC	VALID
SJACT002_D	10	104143237	-	10	10	89319691	+	12	ITX	SOMATIC	VALID
SJACT002_D	10	131875242	-	1	19	30187403	+	4	CTX	SOMATIC	VALID
SJACT002_D	11	17827428	+	4	11	17735790	+	2	INS	SOMATIC	VALID
SJACT002_D	11	27236574	+	4	11	27206285	+	4	INS	SOMATIC	VALID
SJACT002_D	11	62458024	+	8	11	62394356	+	4	INS	SOMATIC	VALID
SJACT002_D	11	73674356	+	7	15	90864234	-	2	CTX	SOMATIC	VALID
SJACT002_D	11	73679088	+	3	9	94933426	+	3	CTX	SOMATIC	VALID
SJACT002_D	12	56518088	+	5	12	56436190	+	3	INS	SOMATIC	VALID
SJACT002_D	12	108288625	+	7	20	38355991	+	1	CTX	SOMATIC	VALID
SJACT002_D	12	110867982	+	2	12	110790771	+	4	INS	SOMATIC	VALID
SJACT002_D	13	34085461	+	6	13	34086609	-	0	ITX	SOMATIC	VALID
SJACT002_D	13	50273295	+	4	13	50118665	+	7	INS	SOMATIC	VALID
SJACT002_D	13	87699315	+	6	13	87725534	+	6	DEL	SOMATIC	VALID
SJACT002_D	13	87727093	-	1	13	88864588	+	6	ITX	SOMATIC	VALID
SJACT002_D	13	87728750	+	4	13	87698277	+	4	INS	SOMATIC	VALID
SJACT002_D	13	88864588	-	6	13	87727061	+	3	ITX	SOMATIC	VALID
SJACT002_D	13	89174615	+	5	13	87728121	+	0	INS	SOMATIC	VALID
SJACT002_D	13	91069767	+	6	2	1446335	+	3	CTX	SOMATIC	VALID
SJACT002_D	14	22521092	+	4	9	76266103	+	8	CTX	SOMATIC	VALID

SJACT002_D	14	35876787	+	5	1	93488915	+	7	CTX	SOMATIC	VALID
SJACT002_D	14	35876789	+	8	17	3806106	-	0	CTX	SOMATIC	VALID
SJACT002_D	14	62449862	+	3	7	99242175	-	4	CTX	SOMATIC	VALID
SJACT002_D	14	77422320	+	4	20	18308818	-	3	CTX	SOMATIC	VALID
SJACT002_D	14	90833646	-	6	14	91071446	+	2	ITX	SOMATIC	VALID
SJACT002_D	14	90956870	+	1	7	137983293	+	4	CTX	SOMATIC	VALID
SJACT002_D	14	102171602	-	1	1	28420760	+	8	CTX	SOMATIC	VALID
SJACT002_D	14	107174909	+	1	3	7631162	+	4	CTX	SOMATIC	VALID
SJACT002_D	14	107223223	+	6	3	7713902	-	4	CTX	SOMATIC	VALID
SJACT002_D	15	78447574	+	4	15	78319811	+	3	INS	SOMATIC	VALID
SJACT002_D	15	90863829	+	4	2	73363219	-	4	CTX	SOMATIC	VALID
SJACT002_D	15	90904071	+	8	1	31591407	-	9	CTX	SOMATIC	VALID
SJACT002_D	15	90905294	+	2	15	90863405	+	3	INS	SOMATIC	VALID
SJACT002_D	16	442995	+	2	16	345195	+	6	INS	SOMATIC	VALID
SJACT002_D	16	80987216	+	2	16	80915143	+	3	INS	SOMATIC	VALID
SJACT002_D	17	38326047	+	4	17	38208811	+	1	INS	SOMATIC	VALID
SJACT002_D	17	73745699	+	2	7	99241811	+	2	CTX	SOMATIC	VALID
SJACT002_D	17	73748515	+	0	17	73451627	+	5	INS	SOMATIC	VALID
SJACT002_D	17	79132475	+	6	17	79202095	-	6	ITX	SOMATIC	VALID
SJACT002_D	18	1946809	+	3	18	9840423	+	7	DEL	SOMATIC	VALID
SJACT002_D	18	2224208	-	7	18	1939017	+	2	ITX	SOMATIC	VALID
SJACT002_D	18	9841154	+	7	18	9840575	+	7	INS	SOMATIC	VALID
SJACT002_D	18	9841237	+	4	18	9803485	+	2	INS	SOMATIC	VALID
SJACT002_D	18	9841250	+	3	18	9840434	+	5	INS	SOMATIC	VALID
SJACT002_D	18	41187241	+	6	18	44328106	-	2	ITX	SOMATIC	VALID
SJACT002_D	18	46263767	-	4	18	42206420	+	4	ITX	SOMATIC	VALID
SJACT002_D	19	29543393	+	5	19	29546735	-	4	ITX	SOMATIC	VALID
SJACT002_D	19	30256704	+	3	5	135353870	+	4	CTX	SOMATIC	VALID
SJACT002_D	19	30270736	+	2	2	73362514	+	7	CTX	SOMATIC	VALID
SJACT002_D	19	34985189	+	3	19	34877863	+	4	INS	SOMATIC	VALID
SJACT002_D	19	57447424	-	0	2	73362698	+	3	CTX	SOMATIC	VALID
SJACT002_D	19	57570507	+	3	19	57441008	+	5	INS	SOMATIC	VALID
SJACT002_D	2	1315532	-	7	13	87718475	+	2	CTX	SOMATIC	VALID
SJACT002_D	2	3614774	-	4	11	73672768	+	11	CTX	SOMATIC	VALID
SJACT002_D	2	15096044	+	3	2	14247695	-	0	ITX	SOMATIC	VALID
SJACT002_D	2	25012269	+	10	2	24952189	+	11	INS	SOMATIC	VALID
SJACT002_D	2	177321925	+	7	2	177322603	-	3	ITX	SOMATIC	VALID
SJACT002_D	2	178600592	+	2	2	177322285	+	7	INS	SOMATIC	VALID
SJACT002_D	2	182658496	+	3	2	233738773	+	6	DEL	SOMATIC	VALID
SJACT002_D	2	184424104	+	4	2	178590770	+	2	INS	SOMATIC	VALID
SJACT002_D	2	233737399	+	0	2	178601489	+	3	INS	SOMATIC	VALID

SJACT002_D	20	18437792	+	1	10	131873167	+	6	CTX	SOMATIC	VALID
SJACT002_D	20	18438159	+	3	9	35634237	+	5	CTX	SOMATIC	VALID
SJACT002_D	20	47893685	+	2	20	47750848	+	5	INS	SOMATIC	VALID
SJACT002_D	3	1381745	+	2	7	131242308	+	5	CTX	SOMATIC	VALID
SJACT002_D	3	4381362	+	7	3	4555777	+	7	DEL	SOMATIC	VALID
SJACT002_D	3	6620978	-	3	3	2386824	+	4	ITX	SOMATIC	VALID
SJACT002_D	3	6804465	+	4	14	105977085	+	5	CTX	SOMATIC	VALID
SJACT002_D	3	9646339	+	3	10	73815243	+	0	CTX	SOMATIC	VALID
SJACT002_D	3	9998929	+	7	7	99241745	+	21	CTX	SOMATIC	VALID
SJACT002_D	3	12163225	+	1	3	12217993	+	3	DEL	SOMATIC	VALID
SJACT002_D	3	12187545	+	3	3	21385272	-	2	ITX	SOMATIC	VALID
SJACT002_D	3	13124600	+	8	3	127251441	-	7	ITX	SOMATIC	VALID
SJACT002_D	3	21370803	+	3	4	67204537	+	3	CTX	SOMATIC	VALID
SJACT002_D	3	32819516	+	2	3	37380282	-	2	ITX	SOMATIC	VALID
SJACT002_D	3	79634109	+	2	3	79563832	+	5	INS	SOMATIC	VALID
SJACT002_D	3	127251043	-	5	3	9906822	+	6	ITX	SOMATIC	VALID
SJACT002_D	3	127251067	-	8	3	13065766	+	2	ITX	SOMATIC	VALID
SJACT002_D	3	127251428	+	8	3	127254732	-	1	ITX	SOMATIC	VALID
SJACT002_D	3	127251802	+	6	3	127251073	+	6	INS	SOMATIC	VALID
SJACT002_D	3	164741295	-	1	3	164997731	+	2	ITX	SOMATIC	VALID
SJACT002_D	3	164741303	+	0	3	164654607	+	3	INS	SOMATIC	VALID
SJACT002_D	3	164741651	+	2	3	164763747	+	1	DEL	SOMATIC	VALID
SJACT002_D	3	166770185	+	2	7	4001783	-	4	CTX	SOMATIC	VALID
SJACT002_D	4	38853657	+	3	4	53183355	-	4	ITX	SOMATIC	VALID
SJACT002_D	4	53183855	+	4	4	53320791	+	1	DEL	SOMATIC	VALID
SJACT002_D	4	53713301	+	6	4	32142468	+	1	INS	SOMATIC	VALID
SJACT002_D	4	65481086	+	3	4	65529199	+	0	DEL	SOMATIC	VALID
SJACT002_D	4	180111366	+	6	7	137942264	+	12	CTX	SOMATIC	VALID
SJACT002_D	5	90550569	-	3	19	30256177	+	3	CTX	SOMATIC	VALID
SJACT002_D	5	90555711	+	5	5	90675610	-	5	ITX	SOMATIC	VALID
SJACT002_D	5	175720535	+	3	5	175593646	+	4	INS	SOMATIC	VALID
SJACT002_D	6	17333204	+	3	6	9788541	+	6	INS	SOMATIC	VALID
SJACT002_D	6	17732988	-	3	2	13939271	+	2	CTX	SOMATIC	VALID
SJACT002_D	6	51710987	+	3	6	51801754	+	4	DEL	SOMATIC	VALID
SJACT002_D	6	53517244	+	5	14	77420703	+	7	CTX	SOMATIC	VALID
SJACT002_D	6	53517266	-	8	1	93587116	+	7	CTX	SOMATIC	VALID
SJACT002_D	7	99242234	+	7	3	127254446	+	6	CTX	SOMATIC	VALID
SJACT002_D	7	136022341	+	2	7	140097820	-	5	ITX	SOMATIC	VALID
SJACT002_D	7	140182696	+	1	7	137984673	+	8	INS	SOMATIC	VALID
SJACT002_D	8	13844304	+	5	8	20187824	+	1	DEL	SOMATIC	VALID
SJACT002_D	8	27641338	+	4	8	27519341	+	3	INS	SOMATIC	VALID

SJACT002_D	8	141546294	+	6	8	141777013	+	3	DEL	SOMATIC	VALID
SJACT002_D	9	35703022	+	5	1	151159341	-	1	CTX	SOMATIC	VALID
SJACT002_D	9	35703555	+	6	20	18298489	+	7	CTX	SOMATIC	VALID
SJACT002_D	9	37380515	+	1	9	37423449	+	6	DEL	SOMATIC	VALID
SJACT002_D	9	37381635	+	3	9	37375639	+	4	INS	SOMATIC	VALID
SJACT002_D	9	70565563	+	3	12	108211370	+	3	CTX	SOMATIC	VALID
SJACT002_D	9	76193305	+	8	14	62922100	+	8	CTX	SOMATIC	VALID
SJACT002_D	9	94999838	-	3	17	79125834	+	4	CTX	SOMATIC	VALID
SJACT002_D	9	95000672	+	3	17	79131540	+	5	CTX	SOMATIC	VALID
SJACT002_D	9	95001717	+	2	10	89451589	+	4	CTX	SOMATIC	VALID
SJACT002_D	9	116473939	+	1	14	35876457	+	6	CTX	SOMATIC	VALID
SJACT002_D	9	130815810	+	2	9	130754302	+	5	INS	SOMATIC	VALID
SJACT002_D	9	130888094	-	1	11	73673944	+	5	CTX	SOMATIC	VALID
SJACT002_D	9	131519659	+	6	16	68029313	+	3	CTX	SOMATIC	VALID
SJACT002_D	9	136158246	+	3	9	136158878	+	0	DEL	SOMATIC	VALID
SJACT002_D	X	41291809	+	6	X	41172868	+	1	INS	SOMATIC	VALID
SJACT002_D	X	86000158	+	2	X	86000216	+	2	DEL	SOMATIC	VALID
SJACT002_D	X	87410532	+	4	X	97910134	+	7	DEL	SOMATIC	VALID
SJACT002_D	X	87414386	+	3	X	89360161	-	1	ITX	SOMATIC	VALID
SJACT002_D	X	89343504	-	0	X	82179116	+	3	ITX	SOMATIC	VALID
SJACT002_D	X	90369189	+	3	X	97912438	-	5	ITX	SOMATIC	VALID
SJACT002_D	X	90371460	+	4	X	97438939	-	6	ITX	SOMATIC	VALID
SJACT002_D	X	90381053	+	10	X	97918882	+	4	DEL	SOMATIC	VALID
SJACT002_D	X	97430138	-	2	X	87410720	+	4	ITX	SOMATIC	VALID
SJACT002_D	X	97912474	-	5	X	90369840	+	3	ITX	SOMATIC	VALID
SJACT002_D	X	97918857	+	4	X	90371502	+	5	INS	SOMATIC	VALID
SJACT003_D	1	19258425	-	2	1	12667366	+	2	ITX	SOMATIC	VALID
SJACT003_D	1	103386508	-	2	1	101836828	+	2	ITX	SOMATIC	VALID
SJACT003_D	4	181548104	+	2	4	182212423	+	1	DEL	SOMATIC	VALID
SJACT003_D	4	182382780	+	6	4	182394286	+	0	DEL	SOMATIC	VALID
SJACT004_D	2	47319282	-	0	X	153684967	+	3	CTX	SOMATIC	VALID
SJACT004_D	4	181889131	+	2	4	182383930	+	1	DEL	SOMATIC	VALID
SJACT004_D	4	181943482	+	7	4	182668808	+	1	DEL	SOMATIC	VALID
SJACT004_D	5	121902454	+	3	5	121929839	+	2	DEL	SOMATIC	VALID
SJACT005_D	1	48264757	+	4	1	48307352	+	3	DEL	SOMATIC	VALID
SJACT005_D	1	56830685	+	3	1	57031736	+	1	DEL	SOMATIC	VALID
SJACT005_D	1	82157444	+	10	1	82352333	+	1	DEL	SOMATIC	VALID
SJACT005_D	1	106416780	-	1	8	73065866	+	2	CTX	SOMATIC	VALID
SJACT005_D	1	106817927	+	3	1	118231842	+	0	DEL	SOMATIC	VALID
SJACT005_D	1	109792066	+	8	1	109711037	+	5	INS	SOMATIC	VALID
SJACT005_D	1	120088215	-	1	8	78999571	+	2	CTX	SOMATIC	VALID

SJACT005_D	1	149690665	+	2	12	79723552	+	3	CTX	SOMATIC	VALID
SJACT005_D	1	151323883	+	4	1	159443652	-	6	ITX	SOMATIC	VALID
SJACT005_D	1	151327567	+	1	1	159444820	+	4	DEL	SOMATIC	VALID
SJACT005_D	1	157845576	+	3	1	154095062	+	4	INS	SOMATIC	VALID
SJACT005_D	1	160650454	+	3	4	30626958	+	4	CTX	SOMATIC	VALID
SJACT005_D	1	161649552	+	4	1	159407892	+	9	INS	SOMATIC	VALID
SJACT005_D	1	166831419	+	3	4	433687	+	4	CTX	SOMATIC	VALID
SJACT005_D	1	169354498	+	4	1	169374063	+	6	DEL	SOMATIC	VALID
SJACT005_D	1	176169557	+	5	4	435123	-	0	CTX	SOMATIC	VALID
SJACT005_D	1	176169813	+	0	4	597760	+	3	CTX	SOMATIC	VALID
SJACT005_D	1	177354789	+	3	1	177268955	+	4	INS	SOMATIC	VALID
SJACT005_D	1	180184999	+	3	1	180185067	+	2	DEL	SOMATIC	VALID
SJACT005_D	1	183840705	+	3	4	33780490	-	1	CTX	SOMATIC	VALID
SJACT005_D	10	161597	+	3	10	171490	+	4	DEL	SOMATIC	VALID
SJACT005_D	10	188677	+	3	10	714169	+	4	DEL	SOMATIC	VALID
SJACT005_D	10	42649243	+	1	19	55576499	+	8	CTX	SOMATIC	VALID
SJACT005_D	10	42791409	+	5	10	42792968	-	5	ITX	SOMATIC	VALID
SJACT005_D	10	67551017	+	0	10	67612431	+	5	DEL	SOMATIC	VALID
SJACT005_D	10	78830966	+	5	10	79358143	+	2	DEL	SOMATIC	VALID
SJACT005_D	10	94971704	+	3	7	8031887	-	3	CTX	SOMATIC	VALID
SJACT005_D	10	95021897	+	5	7	44312824	+	2	CTX	SOMATIC	VALID
SJACT005_D	10	95021941	-	6	10	95021569	+	2	ITX	SOMATIC	VALID
SJACT005_D	10	132703932	+	1	7	8063822	+	3	CTX	SOMATIC	VALID
SJACT005_D	10	132799612	+	2	19	22085985	+	6	CTX	SOMATIC	VALID
SJACT005_D	10	132852233	+	6	7	44294454	-	0	CTX	SOMATIC	VALID
SJACT005_D	10	132873438	+	2	10	134163368	-	2	ITX	SOMATIC	VALID
SJACT005_D	10	132887564	+	2	10	132999369	-	3	ITX	SOMATIC	VALID
SJACT005_D	11	6674698	+	0	3	39218493	+	11	CTX	SOMATIC	VALID
SJACT005_D	11	38517658	+	2	11	38521524	+	3	DEL	SOMATIC	VALID
SJACT005_D	11	44823744	+	10	11	44867973	+	5	DEL	SOMATIC	VALID
SJACT005_D	11	91352166	+	4	11	91356021	+	4	DEL	SOMATIC	VALID
SJACT005_D	11	97388655	+	3	11	97389062	+	0	DEL	SOMATIC	VALID
SJACT005_D	11	125417344	+	1	11	125561494	+	3	DEL	SOMATIC	VALID
SJACT005_D	12	57076168	+	5	12	57113255	+	0	DEL	SOMATIC	VALID
SJACT005_D	12	110011252	+	6	8	115275548	-	5	CTX	SOMATIC	VALID
SJACT005_D	12	110768672	+	2	12	110851052	+	4	DEL	SOMATIC	VALID
SJACT005_D	12	117648215	+	2	12	117648684	-	7	ITX	SOMATIC	VALID
SJACT005_D	12	120296602	-	3	12	110117356	+	2	ITX	SOMATIC	VALID
SJACT005_D	12	124940789	+	7	12	125011021	+	3	DEL	SOMATIC	VALID
SJACT005_D	13	43588949	+	6	13	43572695	+	7	INS	SOMATIC	VALID
SJACT005_D	13	52182146	+	5	13	80959912	-	2	ITX	SOMATIC	VALID

SJACT005_D	13	70843150	-	4	13	65280089	+	3	ITX	SOMATIC	VALID
SJACT005_D	13	80958375	-	5	13	52298700	+	6	ITX	SOMATIC	VALID
SJACT005_D	13	80965899	+	5	13	80965950	+	5	DEL	SOMATIC	VALID
SJACT005_D	13	81025976	+	10	13	80959912	+	6	INS	SOMATIC	VALID
SJACT005_D	13	89393494	+	5	13	81736956	+	0	INS	SOMATIC	VALID
SJACT005_D	13	97214076	+	4	13	97216382	+	6	DEL	SOMATIC	VALID
SJACT005_D	13	99236503	+	4	13	99237370	+	9	DEL	SOMATIC	VALID
SJACT005_D	14	19170757	+	0	14	101856934	+	9	DEL	SOMATIC	VALID
SJACT005_D	14	19552325	+	3	14	92871748	+	14	DEL	SOMATIC	VALID
SJACT005_D	14	20692469	+	9	14	92205975	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	20724462	+	17	14	70139600	+	12	DEL	SOMATIC	VALID
SJACT005_D	14	20742910	-	16	14	19349883	+	5	ITX	SOMATIC	VALID
SJACT005_D	14	20774530	+	10	14	83809350	-	14	ITX	SOMATIC	VALID
SJACT005_D	14	20908487	+	5	14	33844907	+	9	DEL	SOMATIC	VALID
SJACT005_D	14	20908819	+	4	22	21772914	-	1	CTX	SOMATIC	VALID
SJACT005_D	14	21321911	+	7	22	37812499	-	9	CTX	SOMATIC	VALID
SJACT005_D	14	22235227	+	8	19	44782345	-	7	CTX	SOMATIC	VALID
SJACT005_D	14	22677751	+	10	14	62448208	+	12	DEL	SOMATIC	VALID
SJACT005_D	14	23116202	+	9	19	17502539	-	12	CTX	SOMATIC	VALID
SJACT005_D	14	23842831	+	14	19	12205202	-	4	CTX	SOMATIC	VALID
SJACT005_D	14	23843366	+	10	14	83407089	+	15	DEL	SOMATIC	VALID
SJACT005_D	14	24006506	+	8	19	12588538	-	10	CTX	SOMATIC	VALID
SJACT005_D	14	24409630	+	9	19	10676293	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	24500127	+	1	22	42770962	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	24758720	+	5	14	42266163	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	25344563	+	13	14	95169700	+	13	DEL	SOMATIC	VALID
SJACT005_D	14	25459959	+	10	14	79757462	-	1	ITX	SOMATIC	VALID
SJACT005_D	14	25617203	+	9	14	31248933	+	10	DEL	SOMATIC	VALID
SJACT005_D	14	25972582	+	6	22	46048522	+	8	CTX	SOMATIC	VALID
SJACT005_D	14	26003563	+	9	19	57556293	-	14	CTX	SOMATIC	VALID
SJACT005_D	14	26114778	+	12	19	52192449	-	0	CTX	SOMATIC	VALID
SJACT005_D	14	26169362	+	11	14	66965279	+	12	DEL	SOMATIC	VALID
SJACT005_D	14	26751790	+	4	14	51749817	-	2	ITX	SOMATIC	VALID
SJACT005_D	14	26956801	+	7	14	85219890	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	28164830	+	16	14	28165050	-	7	ITX	SOMATIC	VALID
SJACT005_D	14	28542211	+	10	14	63017897	-	17	ITX	SOMATIC	VALID
SJACT005_D	14	28582754	+	17	19	56410766	-	8	CTX	SOMATIC	VALID
SJACT005_D	14	28730653	+	14	14	78798272	-	11	ITX	SOMATIC	VALID
SJACT005_D	14	28994427	+	10	19	28150337	-	16	CTX	SOMATIC	VALID
SJACT005_D	14	29571294	+	4	22	23284908	+	8	CTX	SOMATIC	VALID
SJACT005_D	14	29870543	+	2	19	52877221	+	4	CTX	SOMATIC	VALID

SJACT005_D	14	30256356	+	8	22	37803816	+	6	CTX	SOMATIC	VALID
SJACT005_D	14	30825513	+	2	19	48665230	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	31940734	+	9	19	29815551	+	15	CTX	SOMATIC	VALID
SJACT005_D	14	32779165	+	6	14	85156402	-	7	ITX	SOMATIC	VALID
SJACT005_D	14	33203919	+	9	19	19061611	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	33298037	+	4	14	37313362	+	3	DEL	SOMATIC	VALID
SJACT005_D	14	33598161	+	5	22	37950666	-	6	CTX	SOMATIC	VALID
SJACT005_D	14	33682579	+	9	22	48887254	-	9	CTX	SOMATIC	VALID
SJACT005_D	14	33782363	+	7	22	34925225	-	3	CTX	SOMATIC	VALID
SJACT005_D	14	33818554	+	6	19	35192803	+	2	CTX	SOMATIC	VALID
SJACT005_D	14	34046508	+	8	19	34518486	-	10	CTX	SOMATIC	VALID
SJACT005_D	14	34118179	+	9	14	40017949	+	8	DEL	SOMATIC	VALID
SJACT005_D	14	34408052	+	6	14	61740548	+	5	DEL	SOMATIC	VALID
SJACT005_D	14	34949526	+	10	14	73248053	-	15	ITX	SOMATIC	VALID
SJACT005_D	14	35095144	+	13	19	56073685	+	8	CTX	SOMATIC	VALID
SJACT005_D	14	35145665	+	13	14	62606491	-	19	ITX	SOMATIC	VALID
SJACT005_D	14	35223785	+	9	14	63995872	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	35298998	+	11	14	60647733	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	35755386	+	13	14	78841822	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	36009498	+	15	14	41794181	+	17	DEL	SOMATIC	VALID
SJACT005_D	14	37265693	+	6	14	69889441	+	15	DEL	SOMATIC	VALID
SJACT005_D	14	37390031	+	4	19	28972845	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	37620563	+	8	14	82383330	+	10	DEL	SOMATIC	VALID
SJACT005_D	14	38182665	+	7	19	35819795	-	12	CTX	SOMATIC	VALID
SJACT005_D	14	38362840	+	15	22	43888946	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	38508172	+	14	14	37105947	+	12	INS	SOMATIC	VALID
SJACT005_D	14	38635681	+	2	14	97844708	+	7	DEL	SOMATIC	VALID
SJACT005_D	14	38938530	+	16	14	59416140	+	13	DEL	SOMATIC	VALID
SJACT005_D	14	39402424	+	14	14	76844223	-	21	ITX	SOMATIC	VALID
SJACT005_D	14	39404343	+	12	19	14029706	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	39495989	+	17	14	76411755	+	13	DEL	SOMATIC	VALID
SJACT005_D	14	39538344	-	7	14	31803545	+	6	ITX	SOMATIC	VALID
SJACT005_D	14	39602036	+	6	14	35199840	+	3	INS	SOMATIC	VALID
SJACT005_D	14	40008026	+	13	19	29965771	-	15	CTX	SOMATIC	VALID
SJACT005_D	14	40015586	+	10	22	48547798	+	13	CTX	SOMATIC	VALID
SJACT005_D	14	40121789	+	11	22	24566499	+	7	CTX	SOMATIC	VALID
SJACT005_D	14	40249921	+	7	19	39989403	+	1	CTX	SOMATIC	VALID
SJACT005_D	14	41157878	+	4	19	20066556	-	2	CTX	SOMATIC	VALID
SJACT005_D	14	41784553	+	7	14	29769050	+	8	INS	SOMATIC	VALID
SJACT005_D	14	41934436	+	8	19	53527682	-	4	CTX	SOMATIC	VALID
SJACT005_D	14	41936900	+	9	22	30009581	+	3	CTX	SOMATIC	VALID

SJACT005_D	14	41972774	+	5	14	45113889	+	0	DEL	SOMATIC	VALID
SJACT005_D	14	41978573	+	4	19	30101571	-	4	CTX	SOMATIC	VALID
SJACT005_D	14	41979019	+	3	19	53525754	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	41979277	+	1	19	31029563	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	42518541	+	9	7	151986127	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	42717752	+	10	14	83834773	+	8	DEL	SOMATIC	VALID
SJACT005_D	14	43104738	-	13	14	37160854	+	13	ITX	SOMATIC	VALID
SJACT005_D	14	43233845	+	18	14	39942698	+	11	INS	SOMATIC	VALID
SJACT005_D	14	43313084	+	9	14	70726567	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	43770020	+	6	19	17519677	+	1	CTX	SOMATIC	VALID
SJACT005_D	14	43990104	+	6	14	35662769	+	17	INS	SOMATIC	VALID
SJACT005_D	14	44566997	-	12	14	38739793	+	13	ITX	SOMATIC	VALID
SJACT005_D	14	45225160	+	6	22	26073637	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	45563375	-	11	14	33701384	+	14	ITX	SOMATIC	VALID
SJACT005_D	14	46151631	+	4	22	25818124	-	8	CTX	SOMATIC	VALID
SJACT005_D	14	46182266	+	9	19	28816076	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	46228639	+	6	14	78442265	-	3	ITX	SOMATIC	VALID
SJACT005_D	14	46489581	+	3	19	10616152	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	46764609	-	3	14	25447017	+	11	ITX	SOMATIC	VALID
SJACT005_D	14	46779028	+	14	19	20275627	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	46977008	+	13	22	21372260	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	47007380	+	10	19	3126857	+	8	CTX	SOMATIC	VALID
SJACT005_D	14	47184730	+	2	19	818266	-	7	CTX	SOMATIC	VALID
SJACT005_D	14	49260090	+	6	19	46878854	-	15	CTX	SOMATIC	VALID
SJACT005_D	14	49295958	-	15	14	35601628	+	7	ITX	SOMATIC	VALID
SJACT005_D	14	49315125	+	17	14	95753639	-	12	ITX	SOMATIC	VALID
SJACT005_D	14	49711745	+	14	19	36100425	+	1	CTX	SOMATIC	VALID
SJACT005_D	14	49782216	+	14	14	51033851	-	7	ITX	SOMATIC	VALID
SJACT005_D	14	49822066	+	3	19	50291441	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	50197893	+	14	14	100276331	-	12	ITX	SOMATIC	VALID
SJACT005_D	14	50496884	+	7	14	88325757	+	6	DEL	SOMATIC	VALID
SJACT005_D	14	51995240	+	9	14	62310741	+	14	DEL	SOMATIC	VALID
SJACT005_D	14	52457451	+	9	19	17983225	-	9	CTX	SOMATIC	VALID
SJACT005_D	14	52725892	+	12	19	16392908	-	4	CTX	SOMATIC	VALID
SJACT005_D	14	53263923	-	9	14	28813607	+	12	ITX	SOMATIC	VALID
SJACT005_D	14	53689075	+	5	19	18691567	-	11	CTX	SOMATIC	VALID
SJACT005_D	14	53744711	+	11	14	81846444	-	9	ITX	SOMATIC	VALID
SJACT005_D	14	53832233	-	8	14	20611426	+	13	ITX	SOMATIC	VALID
SJACT005_D	14	53854618	+	11	22	49265048	+	18	CTX	SOMATIC	VALID
SJACT005_D	14	54137041	+	19	14	69884698	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	54570570	+	12	14	60674601	-	16	ITX	SOMATIC	VALID

SJACT005_D	14	54833933	+	10	14	106896747	+	6	DEL	SOMATIC	VALID
SJACT005_D	14	54947643	+	11	19	28445938	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	54993021	+	3	14	90595088	-	4	ITX	SOMATIC	VALID
SJACT005_D	14	55208268	+	20	14	43905849	+	17	INS	SOMATIC	VALID
SJACT005_D	14	55230609	+	12	19	1242565	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	55651452	+	11	14	60605388	-	6	ITX	SOMATIC	VALID
SJACT005_D	14	56404224	+	4	22	38149049	+	2	CTX	SOMATIC	VALID
SJACT005_D	14	56793600	+	9	14	68204487	-	7	ITX	SOMATIC	VALID
SJACT005_D	14	56968047	+	13	14	105318366	-	22	ITX	SOMATIC	VALID
SJACT005_D	14	57191614	+	14	14	63333154	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	57968183	-	1	14	34594665	+	12	ITX	SOMATIC	VALID
SJACT005_D	14	58007325	+	9	14	29132587	+	16	INS	SOMATIC	VALID
SJACT005_D	14	58807031	+	11	22	37575318	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	58807135	+	1	22	37575318	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	59543859	+	15	22	50126597	+	17	CTX	SOMATIC	VALID
SJACT005_D	14	59814914	+	18	14	24101653	+	9	INS	SOMATIC	VALID
SJACT005_D	14	60025895	+	4	14	19078917	-	1	ITX	SOMATIC	VALID
SJACT005_D	14	60727831	+	8	14	73564734	+	10	DEL	SOMATIC	VALID
SJACT005_D	14	61516000	+	12	14	48930290	+	5	INS	SOMATIC	VALID
SJACT005_D	14	61516000	+	12	14	48930319	+	6	INS	SOMATIC	VALID
SJACT005_D	14	61703485	+	1	19	38065987	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	61741768	+	8	19	55581990	-	7	CTX	SOMATIC	VALID
SJACT005_D	14	61741780	-	3	14	41976908	+	5	ITX	SOMATIC	VALID
SJACT005_D	14	61742430	+	4	22	30256432	-	2	CTX	SOMATIC	VALID
SJACT005_D	14	61806242	+	12	14	86529931	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	62013744	+	6	14	91417353	+	1	DEL	SOMATIC	VALID
SJACT005_D	14	62607101	+	18	14	62609985	+	17	DEL	SOMATIC	VALID
SJACT005_D	14	63403385	+	9	10	132799453	+	0	CTX	SOMATIC	VALID
SJACT005_D	14	65632291	+	5	14	72086291	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	65679996	+	2	14	65680610	+	1	DEL	SOMATIC	VALID
SJACT005_D	14	67204769	+	8	14	50708411	-	8	ITX	SOMATIC	VALID
SJACT005_D	14	67630625	+	9	14	100072768	+	10	DEL	SOMATIC	VALID
SJACT005_D	14	67776069	+	2	14	68525368	+	4	DEL	SOMATIC	VALID
SJACT005_D	14	67854596	-	14	14	41102629	+	11	ITX	SOMATIC	VALID
SJACT005_D	14	68234789	+	12	14	83542990	-	10	ITX	SOMATIC	VALID
SJACT005_D	14	68377304	+	3	14	49230360	+	5	INS	SOMATIC	VALID
SJACT005_D	14	68709630	+	4	19	29994891	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	68711092	+	3	19	29990469	-	3	CTX	SOMATIC	VALID
SJACT005_D	14	68711716	+	9	22	30009544	-	3	CTX	SOMATIC	VALID
SJACT005_D	14	69396033	+	9	19	17461326	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	69731928	+	16	14	67172772	+	10	INS	SOMATIC	VALID

SJACT005_D	14	69758210	+	11	19	54605549	-	14	CTX	SOMATIC	VALID
SJACT005_D	14	69842269	+	3	14	39192592	+	14	INS	SOMATIC	VALID
SJACT005_D	14	69936819	-	14	14	49738006	+	13	ITX	SOMATIC	VALID
SJACT005_D	14	69993743	+	16	19	4779474	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	70223308	+	21	14	22144032	+	16	INS	SOMATIC	VALID
SJACT005_D	14	70286302	-	9	14	59670964	+	8	ITX	SOMATIC	VALID
SJACT005_D	14	70336361	+	10	1	143520375	-	8	CTX	SOMATIC	VALID
SJACT005_D	14	70903668	+	13	22	35067476	+	1	CTX	SOMATIC	VALID
SJACT005_D	14	72262556	+	11	14	50360028	+	11	INS	SOMATIC	VALID
SJACT005_D	14	72344978	+	1	14	53835585	+	14	INS	SOMATIC	VALID
SJACT005_D	14	73282663	+	5	22	23722344	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	73821178	+	13	14	89586462	-	12	ITX	SOMATIC	VALID
SJACT005_D	14	74214406	+	7	14	105211703	-	4	ITX	SOMATIC	VALID
SJACT005_D	14	74238047	-	17	14	60331439	+	15	ITX	SOMATIC	VALID
SJACT005_D	14	74260292	+	8	19	54594833	+	20	CTX	SOMATIC	VALID
SJACT005_D	14	74580442	+	22	14	35844565	+	16	INS	SOMATIC	VALID
SJACT005_D	14	74819476	+	10	19	29970849	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	74915681	+	10	14	79396040	+	9	DEL	SOMATIC	VALID
SJACT005_D	14	77229341	+	6	19	23766298	-	6	CTX	SOMATIC	VALID
SJACT005_D	14	77348158	+	8	19	4211583	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	77441789	+	7	14	33620463	+	9	INS	SOMATIC	VALID
SJACT005_D	14	77678377	+	12	14	93679030	+	5	DEL	SOMATIC	VALID
SJACT005_D	14	79469225	+	12	19	29340427	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	80278642	+	4	14	47012259	+	6	INS	SOMATIC	VALID
SJACT005_D	14	81910811	-	15	14	52288103	+	8	ITX	SOMATIC	VALID
SJACT005_D	14	82035472	+	20	14	102265987	-	9	ITX	SOMATIC	VALID
SJACT005_D	14	82111990	+	7	14	50715291	+	17	INS	SOMATIC	VALID
SJACT005_D	14	82385203	+	18	19	18284674	+	7	CTX	SOMATIC	VALID
SJACT005_D	14	84404171	+	4	19	22503095	-	7	CTX	SOMATIC	VALID
SJACT005_D	14	86433790	+	9	14	69315798	+	6	INS	SOMATIC	VALID
SJACT005_D	14	87491890	-	14	14	56797834	+	11	ITX	SOMATIC	VALID
SJACT005_D	14	87628176	+	11	22	46387114	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	88009184	+	6	19	14440249	-	0	CTX	SOMATIC	VALID
SJACT005_D	14	88407688	+	10	14	46461604	+	0	INS	SOMATIC	VALID
SJACT005_D	14	88993134	+	6	14	35232046	+	16	INS	SOMATIC	VALID
SJACT005_D	14	89504110	+	17	19	28788460	-	6	CTX	SOMATIC	VALID
SJACT005_D	14	89507456	-	14	14	69587066	+	12	ITX	SOMATIC	VALID
SJACT005_D	14	89772538	+	12	19	14020160	+	17	CTX	SOMATIC	VALID
SJACT005_D	14	89806338	+	15	19	55632198	+	9	CTX	SOMATIC	VALID
SJACT005_D	14	90510055	+	3	22	35056767	-	9	CTX	SOMATIC	VALID
SJACT005_D	14	90647403	+	5	19	44045011	+	10	CTX	SOMATIC	VALID

SJACT005_D	14	90802742	+	7	19	15634268	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	91477925	+	5	14	33820930	+	6	INS	SOMATIC	VALID
SJACT005_D	14	92309677	+	9	14	90623969	+	7	INS	SOMATIC	VALID
SJACT005_D	14	92595676	+	3	19	48936903	-	0	CTX	SOMATIC	VALID
SJACT005_D	14	92825020	+	11	19	48980554	+	6	CTX	SOMATIC	VALID
SJACT005_D	14	93028730	+	11	14	86368771	+	14	INS	SOMATIC	VALID
SJACT005_D	14	93188798	-	11	14	89708282	+	17	ITX	SOMATIC	VALID
SJACT005_D	14	93662531	+	21	19	21678135	-	13	CTX	SOMATIC	VALID
SJACT005_D	14	93701694	+	19	19	1667734	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	93771060	+	3	19	30145394	-	5	CTX	SOMATIC	VALID
SJACT005_D	14	94847744	-	9	22	45040425	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	94937529	-	13	14	57061895	+	14	ITX	SOMATIC	VALID
SJACT005_D	14	95137931	+	9	19	41909116	-	6	CTX	SOMATIC	VALID
SJACT005_D	14	95311521	+	17	14	26156520	+	8	INS	SOMATIC	VALID
SJACT005_D	14	95500977	-	16	14	39435717	+	15	ITX	SOMATIC	VALID
SJACT005_D	14	95705815	+	7	14	91756189	+	12	INS	SOMATIC	VALID
SJACT005_D	14	96017990	+	11	21	10880972	-	3	CTX	SOMATIC	VALID
SJACT005_D	14	96683879	+	6	14	71361020	+	14	INS	SOMATIC	VALID
SJACT005_D	14	97140804	+	6	22	50323340	+	8	CTX	SOMATIC	VALID
SJACT005_D	14	97193758	-	9	14	25846995	+	11	ITX	SOMATIC	VALID
SJACT005_D	14	97389250	+	5	14	106309887	-	6	ITX	SOMATIC	VALID
SJACT005_D	14	98048663	+	7	19	10577436	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	99955968	+	10	22	31701935	+	7	CTX	SOMATIC	VALID
SJACT005_D	14	101591918	-	13	14	70714427	+	10	ITX	SOMATIC	VALID
SJACT005_D	14	101849085	+	5	14	60633486	+	9	INS	SOMATIC	VALID
SJACT005_D	14	102056740	+	8	19	15050032	-	6	CTX	SOMATIC	VALID
SJACT005_D	14	102148120	-	12	14	20614534	+	13	ITX	SOMATIC	VALID
SJACT005_D	14	103306787	+	7	19	43668877	+	10	CTX	SOMATIC	VALID
SJACT005_D	14	103774985	+	3	19	47927157	+	4	CTX	SOMATIC	VALID
SJACT005_D	14	104046538	-	9	14	33183503	+	9	ITX	SOMATIC	VALID
SJACT005_D	14	105287188	+	4	19	12979842	+	5	CTX	SOMATIC	VALID
SJACT005_D	14	105836842	+	7	19	41939433	-	4	CTX	SOMATIC	VALID
SJACT005_D	14	106140893	+	10	14	106247259	-	14	ITX	SOMATIC	VALID
SJACT005_D	14	106258254	-	12	14	85919071	+	8	ITX	SOMATIC	VALID
SJACT005_D	14	106300587	-	3	14	105199241	+	7	ITX	SOMATIC	VALID
SJACT005_D	14	106645986	-	7	14	33260848	+	10	ITX	SOMATIC	VALID
SJACT005_D	14	107285508	+	6	14	55395957	+	3	INS	SOMATIC	VALID
SJACT005_D	15	20106582	+	3	19	35584290	+	3	CTX	SOMATIC	VALID
SJACT005_D	15	38161245	+	5	15	38167870	+	1	DEL	SOMATIC	VALID
SJACT005_D	15	44277384	+	8	15	44339629	+	2	DEL	SOMATIC	VALID
SJACT005_D	15	62024989	+	3	15	62024808	+	5	INS	SOMATIC	VALID

SJACT005_D	16	15152318	+	0	16	15157091	+	4	DEL	SOMATIC	VALID
SJACT005_D	16	17348248	+	7	16	17551734	+	4	DEL	SOMATIC	VALID
SJACT005_D	16	17403940	+	3	16	17498650	+	4	DEL	SOMATIC	VALID
SJACT005_D	16	32130020	+	0	19	35584290	+	3	CTX	SOMATIC	VALID
SJACT005_D	16	50607615	+	4	16	50612544	+	6	DEL	SOMATIC	VALID
SJACT005_D	16	89394654	+	7	16	89434621	+	5	DEL	SOMATIC	VALID
SJACT005_D	17	4042221	+	7	17	4084592	+	3	DEL	SOMATIC	VALID
SJACT005_D	17	8405249	+	6	17	8406347	+	3	DEL	SOMATIC	VALID
SJACT005_D	17	29395176	+	5	17	29583773	+	4	DEL	SOMATIC	VALID
SJACT005_D	18	12448450	+	5	19	29360734	-	4	CTX	SOMATIC	VALID
SJACT005_D	18	31314100	+	3	18	31314023	+	0	INS	SOMATIC	VALID
SJACT005_D	18	33998080	+	1	18	34299811	+	6	DEL	SOMATIC	VALID
SJACT005_D	18	46317511	+	6	18	46347036	+	6	DEL	SOMATIC	VALID
SJACT005_D	18	48412776	+	0	18	48443373	+	6	DEL	SOMATIC	VALID
SJACT005_D	18	77923709	+	5	18	77927909	+	1	DEL	SOMATIC	VALID
SJACT005_D	19	517101	+	15	19	1578479	+	11	DEL	SOMATIC	VALID
SJACT005_D	19	763666	+	12	22	39736161	-	6	CTX	SOMATIC	VALID
SJACT005_D	19	1096812	+	8	19	54781398	+	10	DEL	SOMATIC	VALID
SJACT005_D	19	1171736	+	4	22	48733582	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	1599725	+	15	19	56697640	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	1731092	+	7	19	10873489	-	5	ITX	SOMATIC	VALID
SJACT005_D	19	2039108	+	5	14	72852815	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	2047047	+	2	19	22693475	-	14	ITX	SOMATIC	VALID
SJACT005_D	19	2063820	+	8	19	8781481	-	13	ITX	SOMATIC	VALID
SJACT005_D	19	2500421	+	10	14	35751848	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	2559033	+	14	22	18258301	-	1	CTX	SOMATIC	VALID
SJACT005_D	19	2587545	-	21	14	52659289	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	2768756	+	5	19	17195610	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	2834871	+	6	14	30682645	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	3082261	+	9	19	40097319	-	5	ITX	SOMATIC	VALID
SJACT005_D	19	3154069	+	6	19	30314898	-	1	ITX	SOMATIC	VALID
SJACT005_D	19	3319786	+	6	19	3781688	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	3805220	-	3	14	24499765	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	3809494	+	2	22	38214917	-	2	CTX	SOMATIC	VALID
SJACT005_D	19	3828453	+	6	22	18774691	-	0	CTX	SOMATIC	VALID
SJACT005_D	19	4059656	+	8	19	9008735	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	4351575	+	1	19	1443792	+	5	INS	SOMATIC	VALID
SJACT005_D	19	4368415	-	5	19	32735410	+	10	ITX	SOMATIC	VALID
SJACT005_D	19	4430289	+	5	19	40916253	+	2	DEL	SOMATIC	VALID
SJACT005_D	19	4679601	+	12	19	33295953	+	7	DEL	SOMATIC	VALID
SJACT005_D	19	5102543	+	7	14	21298094	+	5	CTX	SOMATIC	VALID

SJACT005_D	19	5323092	+	11	22	18913373	-	9	CTX	SOMATIC	VALID
SJACT005_D	19	5403108	-	12	14	80164543	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	5661443	+	7	19	14370637	+	5	DEL	SOMATIC	VALID
SJACT005_D	19	5819355	+	14	14	86435785	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	6657261	+	7	19	23746444	+	16	DEL	SOMATIC	VALID
SJACT005_D	19	7159171	+	2	22	39593599	-	3	CTX	SOMATIC	VALID
SJACT005_D	19	7833272	+	11	19	11010245	+	17	DEL	SOMATIC	VALID
SJACT005_D	19	7901817	+	9	1	143489009	+	1	CTX	SOMATIC	VALID
SJACT005_D	19	8048978	+	6	19	10376490	-	7	ITX	SOMATIC	VALID
SJACT005_D	19	8068494	+	7	14	24377174	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	8319599	+	12	14	24484845	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	8379479	+	7	14	28790650	-	1	CTX	SOMATIC	VALID
SJACT005_D	19	8661185	+	4	19	8661376	-	2	ITX	SOMATIC	VALID
SJACT005_D	19	8746582	+	8	19	45323340	-	1	ITX	SOMATIC	VALID
SJACT005_D	19	8746640	-	12	19	8746394	+	4	ITX	SOMATIC	VALID
SJACT005_D	19	9315749	+	16	14	38385041	+	5	CTX	SOMATIC	VALID
SJACT005_D	19	9517481	-	6	14	77262628	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	9770352	+	10	19	50505940	+	7	DEL	SOMATIC	VALID
SJACT005_D	19	10113794	+	14	22	49411938	-	9	CTX	SOMATIC	VALID
SJACT005_D	19	10251151	+	5	19	1565609	-	4	ITX	SOMATIC	VALID
SJACT005_D	19	10592117	+	10	19	4625797	+	9	INS	SOMATIC	VALID
SJACT005_D	19	10952422	+	12	19	43379767	-	3	ITX	SOMATIC	VALID
SJACT005_D	19	11546950	+	4	19	33095234	+	7	DEL	SOMATIC	VALID
SJACT005_D	19	12669628	+	1	14	41099589	+	5	CTX	SOMATIC	VALID
SJACT005_D	19	12980292	+	4	19	48061948	-	5	ITX	SOMATIC	VALID
SJACT005_D	19	13221809	-	5	14	33382563	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	13621930	+	5	19	35244133	-	13	ITX	SOMATIC	VALID
SJACT005_D	19	14237997	+	14	19	47080304	+	12	DEL	SOMATIC	VALID
SJACT005_D	19	14379853	+	10	19	39321228	-	13	ITX	SOMATIC	VALID
SJACT005_D	19	14631182	+	6	14	69843452	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	14667508	+	8	19	14667996	+	6	DEL	SOMATIC	VALID
SJACT005_D	19	14790771	-	9	14	38358591	+	15	CTX	SOMATIC	VALID
SJACT005_D	19	16366150	+	8	22	47514618	-	10	CTX	SOMATIC	VALID
SJACT005_D	19	16395931	-	8	14	60044552	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	16445241	+	4	14	96463215	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	16459566	-	12	14	52745021	+	5	CTX	SOMATIC	VALID
SJACT005_D	19	16501406	+	8	19	18323050	-	4	ITX	SOMATIC	VALID
SJACT005_D	19	16890656	-	18	14	88833356	+	15	CTX	SOMATIC	VALID
SJACT005_D	19	16981409	+	8	19	28357613	-	15	ITX	SOMATIC	VALID
SJACT005_D	19	17340150	+	8	19	48616832	+	11	DEL	SOMATIC	VALID
SJACT005_D	19	17396807	-	9	14	55163938	+	6	CTX	SOMATIC	VALID

SJACT005_D	19	17431045	+	8	19	42759822	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	17522735	+	10	14	84500739	+	19	CTX	SOMATIC	VALID
SJACT005_D	19	18449401	+	9	19	33950756	-	12	ITX	SOMATIC	VALID
SJACT005_D	19	18875476	+	7	19	10985990	+	3	INS	SOMATIC	VALID
SJACT005_D	19	19286032	+	10	19	9657262	+	2	INS	SOMATIC	VALID
SJACT005_D	19	19317142	-	1	19	19317417	+	11	ITX	SOMATIC	VALID
SJACT005_D	19	19337437	+	10	22	22341052	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	19601498	-	9	14	24002128	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	19644329	+	6	22	37647286	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	19644376	+	2	22	37647286	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	20076387	-	10	14	60658013	+	17	CTX	SOMATIC	VALID
SJACT005_D	19	20718721	+	7	19	52830182	+	13	DEL	SOMATIC	VALID
SJACT005_D	19	21228604	-	10	19	15750615	+	14	ITX	SOMATIC	VALID
SJACT005_D	19	21787744	+	18	14	25534751	+	12	CTX	SOMATIC	VALID
SJACT005_D	19	22141703	+	4	22	19946533	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	22177504	-	4	14	84732469	+	5	CTX	SOMATIC	VALID
SJACT005_D	19	22432278	+	8	19	22848956	+	10	DEL	SOMATIC	VALID
SJACT005_D	19	22511870	-	9	19	1092641	+	6	ITX	SOMATIC	VALID
SJACT005_D	19	22789438	+	2	1	142809755	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	22902016	+	5	22	41729601	-	13	CTX	SOMATIC	VALID
SJACT005_D	19	23042847	-	8	14	72263866	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	23436484	+	13	22	37397025	+	15	CTX	SOMATIC	VALID
SJACT005_D	19	23877032	+	9	19	18452809	+	13	INS	SOMATIC	VALID
SJACT005_D	19	23978536	+	8	22	17924375	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	23978775	+	15	19	43334871	+	9	DEL	SOMATIC	VALID
SJACT005_D	19	24371214	-	6	14	35874178	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	24389438	+	2	14	20943359	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	24392392	+	4	14	20916366	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	24418203	+	9	19	43416079	-	15	ITX	SOMATIC	VALID
SJACT005_D	19	27810750	+	9	19	17267814	+	18	INS	SOMATIC	VALID
SJACT005_D	19	27885714	-	8	19	14030358	+	15	ITX	SOMATIC	VALID
SJACT005_D	19	28183376	-	11	19	21975499	+	5	ITX	SOMATIC	VALID
SJACT005_D	19	28257150	+	18	14	78821983	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	28295541	-	5	14	68712822	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	28372899	+	5	22	32762788	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	28529689	+	8	19	18819884	+	8	INS	SOMATIC	VALID
SJACT005_D	19	28758576	+	8	22	31022930	-	11	CTX	SOMATIC	VALID
SJACT005_D	19	28952007	-	9	14	97099918	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	29041256	+	6	14	75043659	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	29041369	+	5	14	75043659	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	29336116	+	4	14	43251346	+	8	CTX	SOMATIC	VALID

SJACT005_D	19	29440537	+	11	19	30869134	-	9	ITX	SOMATIC	VALID
SJACT005_D	19	29448301	-	15	19	29259742	+	7	ITX	SOMATIC	VALID
SJACT005_D	19	29459915	+	18	14	62812417	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	29541051	+	16	19	33656144	-	20	ITX	SOMATIC	VALID
SJACT005_D	19	29604512	+	19	14	39187718	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	29644217	+	5	14	63407926	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	29650588	+	5	14	41931244	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	29650812	+	9	19	31021445	+	8	DEL	SOMATIC	VALID
SJACT005_D	19	29979512	+	10	19	29990477	+	8	DEL	SOMATIC	VALID
SJACT005_D	19	30294159	-	4	19	4460049	+	9	ITX	SOMATIC	VALID
SJACT005_D	19	30296638	+	14	19	14505534	+	12	INS	SOMATIC	VALID
SJACT005_D	19	31117733	+	17	19	16896945	+	6	INS	SOMATIC	VALID
SJACT005_D	19	31193221	-	4	14	26480410	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	31951443	-	7	14	56768129	+	13	CTX	SOMATIC	VALID
SJACT005_D	19	32091825	+	10	19	33089681	-	4	ITX	SOMATIC	VALID
SJACT005_D	19	32154092	+	15	21	9420152	+	17	CTX	SOMATIC	VALID
SJACT005_D	19	32176520	+	16	22	27635352	-	11	CTX	SOMATIC	VALID
SJACT005_D	19	32357042	-	4	14	91980409	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	32786742	+	8	22	30831596	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	33580617	+	4	14	74560276	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	33710277	-	20	19	19514056	+	6	ITX	SOMATIC	VALID
SJACT005_D	19	34122276	-	22	14	28317156	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	34164371	+	6	14	54448414	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	34243121	+	10	19	35894107	+	16	DEL	SOMATIC	VALID
SJACT005_D	19	34366923	+	15	19	5224854	+	8	INS	SOMATIC	VALID
SJACT005_D	19	34512164	-	4	14	77262366	+	8	CTX	SOMATIC	VALID
SJACT005_D	19	35481591	-	9	14	105316411	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	35583572	+	14	14	51980494	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	35694454	-	18	14	23581759	+	16	CTX	SOMATIC	VALID
SJACT005_D	19	35779396	-	4	14	68206469	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	35880303	+	11	14	38162386	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	35915321	+	10	19	35822241	+	11	INS	SOMATIC	VALID
SJACT005_D	19	35937283	+	2	19	52968993	-	9	ITX	SOMATIC	VALID
SJACT005_D	19	36186437	+	5	22	32369322	-	8	CTX	SOMATIC	VALID
SJACT005_D	19	36417327	-	5	14	24742643	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	36419877	+	5	22	23171864	-	3	CTX	SOMATIC	VALID
SJACT005_D	19	36714270	-	4	19	28904302	+	4	ITX	SOMATIC	VALID
SJACT005_D	19	36970900	+	7	19	39989056	-	15	ITX	SOMATIC	VALID
SJACT005_D	19	37557554	+	3	19	16173984	+	11	INS	SOMATIC	VALID
SJACT005_D	19	38123792	+	2	14	102308766	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	38606067	-	9	14	61842879	+	12	CTX	SOMATIC	VALID

SJACT005_D	19	38636681	+	3	14	41771319	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	38805926	-	11	19	23703069	+	2	ITX	SOMATIC	VALID
SJACT005_D	19	38837248	+	13	19	34262719	+	17	INS	SOMATIC	VALID
SJACT005_D	19	38850654	-	4	14	103576309	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	38862090	+	6	19	30298877	+	7	INS	SOMATIC	VALID
SJACT005_D	19	39332994	-	2	14	72063817	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	39762396	+	3	19	57600493	+	8	DEL	SOMATIC	VALID
SJACT005_D	19	40344035	+	13	14	70892675	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	40439376	+	8	19	49129486	-	8	ITX	SOMATIC	VALID
SJACT005_D	19	40820214	+	5	22	50758795	-	11	CTX	SOMATIC	VALID
SJACT005_D	19	40901466	-	4	14	20908138	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	41089801	+	9	22	42962307	-	9	CTX	SOMATIC	VALID
SJACT005_D	19	41281960	-	11	14	89788847	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	41309191	+	12	19	5800651	+	20	INS	SOMATIC	VALID
SJACT005_D	19	41591044	+	20	19	40190029	+	12	INS	SOMATIC	VALID
SJACT005_D	19	41798868	+	8	22	17801310	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	41923853	+	4	14	98041010	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	41956623	+	2	22	24557722	+	3	CTX	SOMATIC	VALID
SJACT005_D	19	42383765	-	9	19	13028801	+	8	ITX	SOMATIC	VALID
SJACT005_D	19	42463059	+	14	22	38847080	-	22	CTX	SOMATIC	VALID
SJACT005_D	19	43036024	+	2	14	70289337	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	43153190	+	10	22	44067859	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	43214497	+	6	19	50094631	+	0	DEL	SOMATIC	VALID
SJACT005_D	19	43500314	-	20	19	33010869	+	12	ITX	SOMATIC	VALID
SJACT005_D	19	43575077	+	13	19	43575332	-	13	ITX	SOMATIC	VALID
SJACT005_D	19	43575150	-	10	14	28164855	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	43688672	+	10	22	44262384	-	6	CTX	SOMATIC	VALID
SJACT005_D	19	44241520	-	16	19	44241282	+	5	ITX	SOMATIC	VALID
SJACT005_D	19	44249768	+	3	19	8306060	+	2	INS	SOMATIC	VALID
SJACT005_D	19	44292481	+	2	19	39895985	+	12	INS	SOMATIC	VALID
SJACT005_D	19	45841980	+	12	22	43328936	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	46793765	-	2	14	77130161	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	47090067	+	8	19	18693510	+	10	INS	SOMATIC	VALID
SJACT005_D	19	47482665	+	14	19	53139684	-	13	ITX	SOMATIC	VALID
SJACT005_D	19	47623989	-	13	14	81739833	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	47629471	+	12	19	29476319	+	13	INS	SOMATIC	VALID
SJACT005_D	19	47682035	+	4	22	44035935	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	48196140	+	12	19	55520344	+	14	DEL	SOMATIC	VALID
SJACT005_D	19	48845941	+	4	14	20884823	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	48969422	+	2	22	38202029	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	49321352	+	12	19	49960991	+	1	DEL	SOMATIC	VALID

SJACT005_D	19	49406346	+	9	14	46711391	+	13	CTX	SOMATIC	VALID
SJACT005_D	19	49812049	+	3	19	49822121	+	6	DEL	SOMATIC	VALID
SJACT005_D	19	49893402	-	5	19	49794036	+	2	ITX	SOMATIC	VALID
SJACT005_D	19	49905306	+	6	19	33315261	-	6	ITX	SOMATIC	VALID
SJACT005_D	19	50055940	-	11	19	46632305	+	6	ITX	SOMATIC	VALID
SJACT005_D	19	50081380	+	6	19	270673	+	3	INS	SOMATIC	VALID
SJACT005_D	19	50081381	+	7	19	270743	+	4	INS	SOMATIC	VALID
SJACT005_D	19	50084840	+	11	19	9927933	+	6	INS	SOMATIC	VALID
SJACT005_D	19	50105415	+	7	14	89440955	+	19	CTX	SOMATIC	VALID
SJACT005_D	19	50106023	-	11	19	4102978	+	5	ITX	SOMATIC	VALID
SJACT005_D	19	50345269	+	12	22	46422016	+	7	CTX	SOMATIC	VALID
SJACT005_D	19	50895721	+	15	19	7706228	+	14	INS	SOMATIC	VALID
SJACT005_D	19	52339491	-	6	14	39784921	+	14	CTX	SOMATIC	VALID
SJACT005_D	19	52469093	+	11	22	34527464	+	11	CTX	SOMATIC	VALID
SJACT005_D	19	52666069	-	4	19	411606	+	6	ITX	SOMATIC	VALID
SJACT005_D	19	52702441	+	7	19	52711343	+	7	DEL	SOMATIC	VALID
SJACT005_D	19	52820514	+	19	19	57444892	-	1	ITX	SOMATIC	VALID
SJACT005_D	19	52884676	+	12	14	65660892	+	18	CTX	SOMATIC	VALID
SJACT005_D	19	53384444	-	6	19	29836405	+	9	ITX	SOMATIC	VALID
SJACT005_D	19	53564228	+	9	19	18304541	+	4	INS	SOMATIC	VALID
SJACT005_D	19	53565483	-	2	14	30825361	+	2	CTX	SOMATIC	VALID
SJACT005_D	19	53750226	+	4	19	29082608	+	1	INS	SOMATIC	VALID
SJACT005_D	19	53938136	+	9	22	44266159	+	4	CTX	SOMATIC	VALID
SJACT005_D	19	54036538	+	19	19	6498986	+	16	INS	SOMATIC	VALID
SJACT005_D	19	54446106	-	19	19	17359907	+	12	ITX	SOMATIC	VALID
SJACT005_D	19	54547779	+	21	19	39762828	+	12	INS	SOMATIC	VALID
SJACT005_D	19	54591887	+	6	19	28609218	+	6	INS	SOMATIC	VALID
SJACT005_D	19	54731750	+	10	22	32184104	+	9	CTX	SOMATIC	VALID
SJACT005_D	19	54911193	+	6	19	58531582	+	5	DEL	SOMATIC	VALID
SJACT005_D	19	55524302	+	3	14	45185028	-	11	CTX	SOMATIC	VALID
SJACT005_D	19	55576513	+	3	22	22461913	-	4	CTX	SOMATIC	VALID
SJACT005_D	19	55576938	+	2	19	53526773	+	2	INS	SOMATIC	VALID
SJACT005_D	19	55577005	-	5	19	30704885	+	10	ITX	SOMATIC	VALID
SJACT005_D	19	55620424	+	1	19	29543696	+	6	INS	SOMATIC	VALID
SJACT005_D	19	55730346	+	9	19	2038870	+	8	INS	SOMATIC	VALID
SJACT005_D	19	55850492	+	4	22	43356402	-	3	CTX	SOMATIC	VALID
SJACT005_D	19	55856060	-	11	19	41238332	+	3	ITX	SOMATIC	VALID
SJACT005_D	19	55972054	+	14	19	53534669	+	9	INS	SOMATIC	VALID
SJACT005_D	19	56412402	-	5	14	93665595	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	56425675	+	8	22	17669688	-	15	CTX	SOMATIC	VALID
SJACT005_D	19	56652391	+	4	22	34361614	-	9	CTX	SOMATIC	VALID

SJACT005_D	19	56660321	-	9	19	45959722	+	9	ITX	SOMATIC	VALID
SJACT005_D	19	56801095	+	13	22	43907290	-	10	CTX	SOMATIC	VALID
SJACT005_D	19	56831723	+	12	19	33329204	+	8	INS	SOMATIC	VALID
SJACT005_D	19	56834774	-	6	14	74821978	+	10	CTX	SOMATIC	VALID
SJACT005_D	19	57421243	-	13	19	45331708	+	12	ITX	SOMATIC	VALID
SJACT005_D	19	57780682	+	12	14	90414141	+	6	CTX	SOMATIC	VALID
SJACT005_D	19	58414634	+	5	19	54569973	+	4	INS	SOMATIC	VALID
SJACT005_D	2	25560716	+	6	2	25570597	+	7	DEL	SOMATIC	VALID
SJACT005_D	2	77000362	+	4	2	77000581	+	1	DEL	SOMATIC	VALID
SJACT005_D	2	142694677	+	3	2	142815035	+	7	DEL	SOMATIC	VALID
SJACT005_D	2	148712875	+	6	2	149273692	+	8	DEL	SOMATIC	VALID
SJACT005_D	2	160438928	+	8	2	160628992	+	6	DEL	SOMATIC	VALID
SJACT005_D	2	229989753	+	6	2	230023849	+	1	DEL	SOMATIC	VALID
SJACT005_D	2	233432107	+	5	2	237230212	+	5	DEL	SOMATIC	VALID
SJACT005_D	2	238594749	+	3	2	238623013	+	6	DEL	SOMATIC	VALID
SJACT005_D	20	14685691	+	3	20	14842014	+	2	DEL	SOMATIC	VALID
SJACT005_D	20	25899517	+	2	22	24479737	-	3	CTX	SOMATIC	VALID
SJACT005_D	21	10458424	+	6	14	67744081	+	4	CTX	SOMATIC	VALID
SJACT005_D	21	10495951	+	3	14	45162691	+	5	CTX	SOMATIC	VALID
SJACT005_D	21	10504929	+	7	14	63410580	-	4	CTX	SOMATIC	VALID
SJACT005_D	21	10596322	+	13	14	74536816	+	3	CTX	SOMATIC	VALID
SJACT005_D	21	10792183	-	11	14	35126687	+	19	CTX	SOMATIC	VALID
SJACT005_D	21	10855473	-	11	19	49405898	+	18	CTX	SOMATIC	VALID
SJACT005_D	21	10861983	+	10	19	41636029	+	8	CTX	SOMATIC	VALID
SJACT005_D	21	11148635	-	5	19	11368719	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	16114949	+	2	22	41730876	+	9	DEL	SOMATIC	VALID
SJACT005_D	22	16539136	+	2	19	1176809	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	16858670	+	10	14	54423315	+	12	CTX	SOMATIC	VALID
SJACT005_D	22	18316659	+	8	22	49837910	+	13	DEL	SOMATIC	VALID
SJACT005_D	22	20001062	+	5	19	47627891	-	1	CTX	SOMATIC	VALID
SJACT005_D	22	20756093	+	2	22	20913842	+	5	DEL	SOMATIC	VALID
SJACT005_D	22	22261803	+	3	14	62827987	-	2	CTX	SOMATIC	VALID
SJACT005_D	22	22457524	-	1	19	30091224	+	2	CTX	SOMATIC	VALID
SJACT005_D	22	22460517	+	4	19	33572871	+	2	CTX	SOMATIC	VALID
SJACT005_D	22	23170023	-	8	19	3113897	+	3	CTX	SOMATIC	VALID
SJACT005_D	22	23543136	+	1	14	85180161	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	23543276	-	7	22	23542995	+	3	ITX	SOMATIC	VALID
SJACT005_D	22	23804568	-	6	19	34124071	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	24073961	+	16	14	65801270	+	17	CTX	SOMATIC	VALID
SJACT005_D	22	24173881	+	13	14	58771148	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	24649113	+	4	19	2996537	+	9	CTX	SOMATIC	VALID

SJACT005_D	22	24653073	-	1	14	55209564	+	12	CTX	SOMATIC	VALID
SJACT005_D	22	24815985	+	13	14	23707578	+	17	CTX	SOMATIC	VALID
SJACT005_D	22	24995867	+	4	22	24995977	-	4	ITX	SOMATIC	VALID
SJACT005_D	22	25028351	-	6	14	96017578	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	25467704	+	11	19	519887	+	11	CTX	SOMATIC	VALID
SJACT005_D	22	26377586	+	5	21	10871516	+	12	CTX	SOMATIC	VALID
SJACT005_D	22	27262400	+	10	19	32174175	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	27549833	-	18	19	17761108	+	14	CTX	SOMATIC	VALID
SJACT005_D	22	29458800	+	8	1	142584601	+	1	CTX	SOMATIC	VALID
SJACT005_D	22	30134211	-	15	14	79602139	+	19	CTX	SOMATIC	VALID
SJACT005_D	22	30260024	-	2	22	30009007	+	4	ITX	SOMATIC	VALID
SJACT005_D	22	30275201	+	2	19	29645003	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	30470596	+	6	14	105858118	+	16	CTX	SOMATIC	VALID
SJACT005_D	22	31024809	-	10	14	77654608	+	10	CTX	SOMATIC	VALID
SJACT005_D	22	31052575	+	7	19	10136077	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	31928089	+	11	19	22508126	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	31957517	-	1	14	94821107	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	32772917	+	7	14	37349166	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	33592634	+	6	22	41052085	+	4	DEL	SOMATIC	VALID
SJACT005_D	22	34075033	+	3	19	48837612	+	1	CTX	SOMATIC	VALID
SJACT005_D	22	34125023	-	8	19	19511265	+	10	CTX	SOMATIC	VALID
SJACT005_D	22	34525925	+	8	19	20277753	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	34914006	-	12	14	78582637	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	35069977	+	12	19	45306858	+	18	CTX	SOMATIC	VALID
SJACT005_D	22	35104785	-	12	14	28709521	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	35446164	+	2	19	5532378	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	35450736	-	4	14	22066385	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	35817475	+	9	19	4316696	+	3	CTX	SOMATIC	VALID
SJACT005_D	22	36649143	-	4	14	105797746	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	37608205	+	5	14	42594572	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	37634303	+	13	14	49755920	+	13	CTX	SOMATIC	VALID
SJACT005_D	22	37812529	-	8	19	670722	+	10	CTX	SOMATIC	VALID
SJACT005_D	22	37819776	+	6	19	5077731	+	17	CTX	SOMATIC	VALID
SJACT005_D	22	37970619	+	6	14	63395285	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	38278139	+	3	19	49830671	-	2	CTX	SOMATIC	VALID
SJACT005_D	22	38327640	-	6	19	11158655	+	6	CTX	SOMATIC	VALID
SJACT005_D	22	38653304	-	14	14	83282378	+	11	CTX	SOMATIC	VALID
SJACT005_D	22	39249400	-	13	19	7741762	+	11	CTX	SOMATIC	VALID
SJACT005_D	22	39640501	+	7	22	47530594	+	23	DEL	SOMATIC	VALID
SJACT005_D	22	39886082	-	3	14	63231533	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	39910143	+	2	19	39294065	+	2	CTX	SOMATIC	VALID

SJACT005_D	22	41090181	+	4	19	41800525	+	13	CTX	SOMATIC	VALID
SJACT005_D	22	41795565	+	1	14	54938386	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	42126293	-	6	14	68595115	+	11	CTX	SOMATIC	VALID
SJACT005_D	22	42226248	-	11	19	1921308	+	14	CTX	SOMATIC	VALID
SJACT005_D	22	42343211	+	11	19	47354273	+	5	CTX	SOMATIC	VALID
SJACT005_D	22	42768927	+	5	14	78355811	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	42811607	-	6	14	74180023	+	6	CTX	SOMATIC	VALID
SJACT005_D	22	43337928	+	13	22	27237672	+	11	INS	SOMATIC	VALID
SJACT005_D	22	43347850	-	6	14	105200472	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	44056379	+	3	19	10560694	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	44278993	+	5	22	44284624	+	8	DEL	SOMATIC	VALID
SJACT005_D	22	45052637	+	7	19	1114284	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	45052664	+	3	19	1114284	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	45340681	+	14	22	45766065	-	6	ITX	SOMATIC	VALID
SJACT005_D	22	45341154	-	3	22	42767135	+	3	ITX	SOMATIC	VALID
SJACT005_D	22	46348647	+	5	14	103002724	+	4	CTX	SOMATIC	VALID
SJACT005_D	22	46422004	+	23	22	46422264	-	7	ITX	SOMATIC	VALID
SJACT005_D	22	47038052	-	15	14	87659352	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	47115326	+	11	14	68043059	+	10	CTX	SOMATIC	VALID
SJACT005_D	22	47239018	-	7	19	2550606	+	7	CTX	SOMATIC	VALID
SJACT005_D	22	47848714	+	11	14	21984339	+	17	CTX	SOMATIC	VALID
SJACT005_D	22	48697928	-	7	19	7159011	+	2	CTX	SOMATIC	VALID
SJACT005_D	22	48699575	+	6	14	33591238	+	1	CTX	SOMATIC	VALID
SJACT005_D	22	48771325	+	14	14	28180818	+	10	CTX	SOMATIC	VALID
SJACT005_D	22	49257668	+	9	22	49257721	+	5	DEL	SOMATIC	VALID
SJACT005_D	22	49904045	+	7	19	30456644	+	12	CTX	SOMATIC	VALID
SJACT005_D	22	49976444	+	5	22	21778497	+	1	INS	SOMATIC	VALID
SJACT005_D	22	50316208	+	17	14	81847102	+	19	CTX	SOMATIC	VALID
SJACT005_D	22	50653738	-	12	19	7951261	+	8	CTX	SOMATIC	VALID
SJACT005_D	22	50779684	+	6	22	18264350	+	6	INS	SOMATIC	VALID
SJACT005_D	22	50913541	-	11	14	95382175	+	9	CTX	SOMATIC	VALID
SJACT005_D	22	50914318	+	10	14	72953193	+	5	CTX	SOMATIC	VALID
SJACT005_D	3	4480368	+	2	3	4480586	+	2	DEL	SOMATIC	VALID
SJACT005_D	3	39250402	+	4	3	14377510	+	5	INS	SOMATIC	VALID
SJACT005_D	3	46980142	+	0	3	47247641	+	6	DEL	SOMATIC	VALID
SJACT005_D	3	119951506	+	2	3	119860132	+	9	INS	SOMATIC	VALID
SJACT005_D	3	130734669	+	7	3	131063244	+	14	DEL	SOMATIC	VALID
SJACT005_D	3	185739423	+	2	3	185774181	+	8	DEL	SOMATIC	VALID
SJACT005_D	4	435599	+	5	1	181918460	+	4	CTX	SOMATIC	VALID
SJACT005_D	4	435683	+	5	1	181918460	+	4	CTX	SOMATIC	VALID
SJACT005_D	4	596692	+	9	4	435203	+	10	INS	SOMATIC	VALID

SJACT005_D	4	597667	+	0	4	30057341	+	5	DEL	SOMATIC	VALID
SJACT005_D	4	598182	+	3	4	30057790	-	2	ITX	SOMATIC	VALID
SJACT005_D	4	30056673	+	2	4	30058670	+	1	DEL	SOMATIC	VALID
SJACT005_D	4	30057334	+	3	4	434291	-	1	ITX	SOMATIC	VALID
SJACT005_D	4	36012409	-	4	1	180184750	+	3	CTX	SOMATIC	VALID
SJACT005_D	4	36012994	+	5	1	167208033	+	5	CTX	SOMATIC	VALID
SJACT005_D	4	59734063	-	4	4	146515025	+	2	ITX	SOMATIC	VALID
SJACT005_D	4	59734093	+	2	4	157550649	-	4	ITX	SOMATIC	VALID
SJACT005_D	4	105812143	+	4	4	105814026	-	2	ITX	SOMATIC	VALID
SJACT005_D	4	110917059	+	2	4	123951593	+	2	DEL	SOMATIC	VALID
SJACT005_D	4	110917232	+	3	4	115453680	+	0	DEL	SOMATIC	VALID
SJACT005_D	4	115456269	+	1	4	115456706	+	4	DEL	SOMATIC	VALID
SJACT005_D	4	116813148	-	6	4	111278503	+	7	ITX	SOMATIC	VALID
SJACT005_D	4	123174983	-	0	4	115454639	+	3	ITX	SOMATIC	VALID
SJACT005_D	4	123969043	+	3	4	126852433	+	2	DEL	SOMATIC	VALID
SJACT005_D	4	126305366	+	2	4	110932916	+	2	INS	SOMATIC	VALID
SJACT005_D	4	126320692	+	7	4	126833061	+	2	DEL	SOMATIC	VALID
SJACT005_D	4	126833649	+	3	4	110916547	+	2	INS	SOMATIC	VALID
SJACT005_D	4	153019111	+	5	4	157562101	+	4	DEL	SOMATIC	VALID
SJACT005_D	4	191040569	-	3	22	30405866	+	12	CTX	SOMATIC	VALID
SJACT005_D	5	27610422	-	1	5	27742395	+	4	ITX	SOMATIC	VALID
SJACT005_D	5	170337156	-	4	2	75402941	+	2	CTX	SOMATIC	VALID
SJACT005_D	6	8085956	+	4	6	8088252	+	6	DEL	SOMATIC	VALID
SJACT005_D	6	8939754	+	5	6	21117033	-	5	ITX	SOMATIC	VALID
SJACT005_D	6	8948878	+	3	18	11142	+	1	CTX	SOMATIC	VALID
SJACT005_D	6	16564721	+	5	6	3749222	+	8	INS	SOMATIC	VALID
SJACT005_D	6	18415223	+	2	6	100457242	-	4	ITX	SOMATIC	VALID
SJACT005_D	6	18432688	+	8	6	99193052	-	2	ITX	SOMATIC	VALID
SJACT005_D	6	18433018	-	5	6	21170565	+	2	ITX	SOMATIC	VALID
SJACT005_D	6	21117035	-	6	6	8940008	+	2	ITX	SOMATIC	VALID
SJACT005_D	6	21170395	+	1	6	18414167	+	4	INS	SOMATIC	VALID
SJACT005_D	6	21262896	+	7	6	21518895	+	1	DEL	SOMATIC	VALID
SJACT005_D	6	21523869	+	6	6	170608987	+	5	DEL	SOMATIC	VALID
SJACT005_D	6	21536385	+	8	6	21261495	+	1	INS	SOMATIC	VALID
SJACT005_D	6	63840143	+	4	6	63852064	+	2	DEL	SOMATIC	VALID
SJACT005_D	6	71482440	+	6	6	71527509	+	3	DEL	SOMATIC	VALID
SJACT005_D	6	76606428	+	4	6	95376134	+	5	DEL	SOMATIC	VALID
SJACT005_D	6	91269257	+	2	6	99173778	-	5	ITX	SOMATIC	VALID
SJACT005_D	6	91355726	-	1	6	8080587	+	3	ITX	SOMATIC	VALID
SJACT005_D	6	91407355	+	5	6	99191270	+	7	DEL	SOMATIC	VALID
SJACT005_D	6	94936345	+	7	6	76802850	-	0	ITX	SOMATIC	VALID

SJACT005_D	6	94936682	+	8	6	76966411	+	6	INS	SOMATIC	VALID
SJACT005_D	6	95402959	+	1	6	16427025	+	3	INS	SOMATIC	VALID
SJACT005_D	6	100451174	+	10	6	101823988	+	6	DEL	SOMATIC	VALID
SJACT005_D	6	100458111	-	0	6	166711545	+	6	ITX	SOMATIC	VALID
SJACT005_D	6	101823752	+	8	6	21247569	-	1	ITX	SOMATIC	VALID
SJACT005_D	6	101827655	+	4	6	100451817	+	5	INS	SOMATIC	VALID
SJACT005_D	6	106618621	+	8	6	106515258	+	4	INS	SOMATIC	VALID
SJACT005_D	6	131778141	+	3	9	118604846	-	0	CTX	SOMATIC	VALID
SJACT005_D	6	170608638	+	7	6	18429225	+	2	INS	SOMATIC	VALID
SJACT005_D	7	8084748	-	1	7	44351452	+	7	ITX	SOMATIC	VALID
SJACT005_D	7	22508171	+	4	7	22443908	+	4	INS	SOMATIC	VALID
SJACT005_D	7	133320572	+	1	7	133197569	+	2	INS	SOMATIC	VALID
SJACT005_D	8	25124738	+	2	8	25223455	-	1	ITX	SOMATIC	VALID
SJACT005_D	8	25215760	-	1	8	25235773	+	3	ITX	SOMATIC	VALID
SJACT005_D	8	70782227	+	1	8	79003082	+	2	DEL	SOMATIC	VALID
SJACT005_D	8	72051040	+	4	8	79970774	+	2	DEL	SOMATIC	VALID
SJACT005_D	8	73068016	+	1	1	114099063	+	4	CTX	SOMATIC	VALID
SJACT005_D	8	77121239	+	6	8	80358162	-	0	ITX	SOMATIC	VALID
SJACT005_D	8	77199937	+	4	8	78977558	-	0	ITX	SOMATIC	VALID
SJACT005_D	8	78676003	+	4	8	78706699	+	5	DEL	SOMATIC	VALID
SJACT005_D	8	79095954	+	2	1	120088094	+	1	CTX	SOMATIC	VALID
SJACT005_D	8	79127749	+	2	8	79359445	+	1	DEL	SOMATIC	VALID
SJACT005_D	8	79628497	+	2	8	78630107	-	3	ITX	SOMATIC	VALID
SJACT005_D	8	80439326	+	2	8	72044049	+	2	INS	SOMATIC	VALID
SJACT005_D	8	80476700	-	4	8	78617577	+	4	ITX	SOMATIC	VALID
SJACT005_D	8	88789292	+	4	8	90576702	+	3	DEL	SOMATIC	VALID
SJACT005_D	8	96264247	+	1	8	112963152	+	2	DEL	SOMATIC	VALID
SJACT005_D	8	97213335	+	9	8	126386366	+	3	DEL	SOMATIC	VALID
SJACT005_D	8	106026730	+	3	8	119488350	-	5	ITX	SOMATIC	VALID
SJACT005_D	8	109091120	-	3	8	106038440	+	4	ITX	SOMATIC	VALID
SJACT005_D	8	112099430	+	4	8	115513561	+	3	DEL	SOMATIC	VALID
SJACT005_D	8	112955499	-	0	8	121150398	+	7	ITX	SOMATIC	VALID
SJACT005_D	8	112963408	+	5	8	113022413	+	0	DEL	SOMATIC	VALID
SJACT005_D	8	115243574	+	4	8	112806673	+	0	INS	SOMATIC	VALID
SJACT005_D	8	122425034	+	2	8	122428062	-	4	ITX	SOMATIC	VALID
SJACT005_D	8	127446130	+	3	8	114571968	-	1	ITX	SOMATIC	VALID
SJACT005_D	8	127450543	-	4	8	112821257	+	3	ITX	SOMATIC	VALID
SJACT005_D	8	129200652	+	1	1	91997369	+	2	CTX	SOMATIC	VALID
SJACT005_D	8	129214454	+	1	8	129137495	+	4	INS	SOMATIC	VALID
SJACT005_D	9	69892042	+	3	22	24218780	+	6	CTX	SOMATIC	VALID
SJACT005_D	9	88444205	+	4	9	88474698	+	4	DEL	SOMATIC	VALID

SJACT005_D	9	101962063	+	1	9	101955698	+	2	INS	SOMATIC	VALID
SJACT005_D	9	114549794	+	6	9	114665154	+	13	DEL	SOMATIC	VALID
SJACT005_D	9	136011787	+	2	9	135969908	+	6	INS	SOMATIC	VALID
SJACT005_D	GL000218.1	141265	+	0	19	29383854	+	4	CTX	SOMATIC	VALID
SJACT005_D	X	10372178	+	3	X	10238967	+	1	INS	SOMATIC	VALID
SJACT005_D	X	20204332	+	5	X	20237569	+	4	DEL	SOMATIC	VALID
SJACT005_D	X	76797682	+	5	X	76945176	+	4	DEL	SOMATIC	VALID
SJACT005_D	X	128174315	+	7	X	128175260	+	5	DEL	SOMATIC	VALID
SJACT006_D	1	142965172	+	2	2	11929915	+	2	CTX	SOMATIC	VALID
SJACT006_D	5	41450563	+	4	5	41451016	+	13	DEL	SOMATIC	VALID
SJACT007_D	1	775107	+	5	1	797517	+	2	DEL	SOMATIC	VALID
SJACT007_D	1	2196894	-	1	1	3076543	+	2	ITX	SOMATIC	VALID
SJACT007_D	1	3067880	+	3	1	3118299	+	2	DEL	SOMATIC	VALID
SJACT007_D	1	3082615	+	8	1	3840026	-	5	ITX	SOMATIC	VALID
SJACT007_D	1	25937245	+	3	10	77007934	+	2	CTX	SOMATIC	VALID
SJACT007_D	1	32042630	+	10	1	27834466	+	9	INS	SOMATIC	VALID
SJACT007_D	1	55530097	+	9	1	55521180	+	4	INS	SOMATIC	VALID
SJACT007_D	1	89200194	+	7	1	89271086	+	4	DEL	SOMATIC	VALID
SJACT007_D	1	145832036	+	4	1	147305022	+	6	DEL	SOMATIC	VALID
SJACT007_D	1	189165937	+	10	1	217671874	+	3	DEL	SOMATIC	VALID
SJACT007_D	1	189362445	+	3	1	217673561	-	6	ITX	SOMATIC	VALID
SJACT007_D	1	208339845	+	2	1	218149750	+	5	DEL	SOMATIC	VALID
SJACT007_D	1	208345745	+	6	1	217715452	+	5	DEL	SOMATIC	VALID
SJACT007_D	1	210852124	+	2	1	220897075	+	2	DEL	SOMATIC	VALID
SJACT007_D	1	212419695	+	4	9	23687767	-	0	CTX	SOMATIC	VALID
SJACT007_D	1	214815497	-	2	2	91797486	+	7	CTX	SOMATIC	VALID
SJACT007_D	1	217601762	+	3	1	217852037	-	7	ITX	SOMATIC	VALID
SJACT007_D	1	218124663	-	2	1	208345241	+	4	ITX	SOMATIC	VALID
SJACT007_D	1	221032817	-	9	1	218149042	+	5	ITX	SOMATIC	VALID
SJACT007_D	1	221542473	+	9	1	189288183	+	7	INS	SOMATIC	VALID
SJACT007_D	10	10639412	+	8	10	25963236	-	5	ITX	SOMATIC	VALID
SJACT007_D	10	24399982	+	13	10	26107919	+	7	DEL	SOMATIC	VALID
SJACT007_D	10	26733848	+	14	10	25515905	+	16	INS	SOMATIC	VALID
SJACT007_D	10	26995635	+	3	10	26995379	+	1	INS	SOMATIC	VALID
SJACT007_D	10	28255411	+	5	10	35356671	-	0	ITX	SOMATIC	VALID
SJACT007_D	10	28267706	+	9	10	37396446	+	6	DEL	SOMATIC	VALID
SJACT007_D	10	29116760	+	16	10	32243347	-	7	ITX	SOMATIC	VALID
SJACT007_D	10	29116969	+	4	10	32520509	+	14	DEL	SOMATIC	VALID
SJACT007_D	10	29212942	-	4	10	27045405	+	13	ITX	SOMATIC	VALID
SJACT007_D	10	32242871	+	6	10	24288176	+	12	INS	SOMATIC	VALID
SJACT007_D	10	32242955	-	17	10	29116769	+	4	ITX	SOMATIC	VALID

SJACT007_D	10	33560143	+	7	10	52807931	+	3	DEL	SOMATIC	VALID
SJACT007_D	10	35356514	-	3	10	35344908	+	5	ITX	SOMATIC	VALID
SJACT007_D	10	36219277	+	10	10	45741154	-	5	ITX	SOMATIC	VALID
SJACT007_D	10	52805966	-	9	10	28255547	+	8	ITX	SOMATIC	VALID
SJACT007_D	10	52807538	+	5	10	52808114	-	4	INV	SOMATIC	VALID
SJACT007_D	10	52808105	+	8	10	28479835	+	5	INS	SOMATIC	VALID
SJACT007_D	10	77008274	+	4	9	130986429	-	2	CTX	SOMATIC	VALID
SJACT007_D	10	89377054	+	4	3	50584389	+	0	CTX	SOMATIC	VALID
SJACT007_D	10	104642103	+	5	10	104767250	+	8	DEL	SOMATIC	VALID
SJACT007_D	10	123409712	+	9	10	125826047	+	5	DEL	SOMATIC	VALID
SJACT007_D	10	125791128	+	4	10	133664690	+	7	DEL	SOMATIC	VALID
SJACT007_D	10	126114640	+	5	10	134041401	+	6	DEL	SOMATIC	VALID
SJACT007_D	11	2805692	+	4	11	15668892	+	5	DEL	SOMATIC	VALID
SJACT007_D	11	74467016	+	7	11	74602616	+	1	DEL	SOMATIC	VALID
SJACT007_D	11	79852827	+	5	11	80399331	+	6	DEL	SOMATIC	VALID
SJACT007_D	12	252943	+	8	12	394691	+	16	DEL	SOMATIC	VALID
SJACT007_D	12	1095495	+	8	12	1116184	-	3	ITX	SOMATIC	VALID
SJACT007_D	12	14962164	+	2	12	14973645	+	7	DEL	SOMATIC	VALID
SJACT007_D	12	15805536	+	8	12	20964852	-	6	ITX	SOMATIC	VALID
SJACT007_D	12	20471075	+	1	12	16877827	+	2	INS	SOMATIC	VALID
SJACT007_D	12	29944944	+	3	12	29943884	+	1	INS	SOMATIC	VALID
SJACT007_D	12	49151718	-	5	5	138576113	+	2	CTX	SOMATIC	VALID
SJACT007_D	12	64582122	+	8	12	64915825	+	2	DEL	SOMATIC	VALID
SJACT007_D	12	93054753	+	3	12	97329212	+	3	DEL	SOMATIC	VALID
SJACT007_D	12	93239084	+	10	12	130467742	-	7	ITX	SOMATIC	VALID
SJACT007_D	12	95515398	+	1	12	126548809	+	9	DEL	SOMATIC	VALID
SJACT007_D	12	95853367	+	5	12	130433963	-	7	ITX	SOMATIC	VALID
SJACT007_D	12	95857754	+	3	12	130428487	-	10	ITX	SOMATIC	VALID
SJACT007_D	12	95861510	+	7	12	126557331	+	5	DEL	SOMATIC	VALID
SJACT007_D	12	98840472	+	2	12	98930068	+	4	DEL	SOMATIC	VALID
SJACT007_D	12	102242393	+	4	12	102315638	-	12	ITX	SOMATIC	VALID
SJACT007_D	12	102249025	+	7	12	122024293	-	4	ITX	SOMATIC	VALID
SJACT007_D	12	102277973	+	8	12	102248680	+	4	INS	SOMATIC	VALID
SJACT007_D	12	105457710	+	2	12	130423664	-	10	ITX	SOMATIC	VALID
SJACT007_D	12	105735438	+	11	12	125958575	+	1	DEL	SOMATIC	VALID
SJACT007_D	12	122020725	-	4	12	93417316	+	3	ITX	SOMATIC	VALID
SJACT007_D	12	125813940	+	4	12	126558143	-	3	ITX	SOMATIC	VALID
SJACT007_D	12	125911616	+	6	12	130432822	+	6	DEL	SOMATIC	VALID
SJACT007_D	12	125977918	-	8	12	93238678	+	3	ITX	SOMATIC	VALID
SJACT007_D	12	125978479	+	1	12	125855655	+	3	INS	SOMATIC	VALID
SJACT007_D	12	126511004	-	3	12	105295797	+	8	ITX	SOMATIC	VALID

SJACT007_D	12	126539583	+	2	12	125978979	+	8	INS	SOMATIC	VALID
SJACT007_D	12	126549653	+	2	12	105735554	+	4	INS	SOMATIC	VALID
SJACT007_D	12	129752359	+	3	12	95853434	+	8	INS	SOMATIC	VALID
SJACT007_D	12	130428225	-	3	12	95857726	+	5	ITX	SOMATIC	VALID
SJACT007_D	12	130467409	-	6	12	129748196	+	2	ITX	SOMATIC	VALID
SJACT007_D	12	130813518	-	3	12	126539666	+	5	ITX	SOMATIC	VALID
SJACT007_D	13	33650685	+	6	13	33645614	+	3	INS	SOMATIC	VALID
SJACT007_D	13	87556620	+	7	13	87825638	+	3	DEL	SOMATIC	VALID
SJACT007_D	14	55377536	+	12	17	3784903	+	3	CTX	SOMATIC	VALID
SJACT007_D	15	89627037	+	5	15	89620136	+	9	INS	SOMATIC	VALID
SJACT007_D	15	90128935	-	3	9	130985559	+	7	CTX	SOMATIC	VALID
SJACT007_D	15	91410486	+	5	15	92622574	+	5	DEL	SOMATIC	VALID
SJACT007_D	15	102046147	+	3	15	102187329	-	1	ITX	SOMATIC	VALID
SJACT007_D	16	1776917	-	1	16	19489862	+	4	ITX	SOMATIC	VALID
SJACT007_D	16	4204263	+	0	16	19006304	+	4	DEL	SOMATIC	VALID
SJACT007_D	16	4204338	+	0	16	20988597	+	3	DEL	SOMATIC	VALID
SJACT007_D	16	5574668	-	1	16	5599003	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	5579157	+	2	16	5573035	+	4	INS	SOMATIC	VALID
SJACT007_D	16	6550570	+	0	16	17678498	+	5	DEL	SOMATIC	VALID
SJACT007_D	16	6831452	+	4	16	20980177	+	3	DEL	SOMATIC	VALID
SJACT007_D	16	6831454	+	3	16	7439336	-	8	ITX	SOMATIC	VALID
SJACT007_D	16	7295366	+	0	16	7615856	+	4	DEL	SOMATIC	VALID
SJACT007_D	16	7439676	+	1	16	9787830	+	4	DEL	SOMATIC	VALID
SJACT007_D	16	7497656	+	3	16	7220312	+	7	INS	SOMATIC	VALID
SJACT007_D	16	7683445	-	0	16	24201407	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	8287143	-	0	16	19005834	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	8950170	-	4	16	8462958	+	6	ITX	SOMATIC	VALID
SJACT007_D	16	9788122	+	4	16	6550490	+	0	INS	SOMATIC	VALID
SJACT007_D	16	9788701	+	3	16	5525717	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	9924667	+	1	16	19489851	+	2	DEL	SOMATIC	VALID
SJACT007_D	16	9968083	+	0	16	19603051	+	3	DEL	SOMATIC	VALID
SJACT007_D	16	13517391	+	4	16	8356005	+	0	INS	SOMATIC	VALID
SJACT007_D	16	15907580	+	0	16	26385908	+	4	DEL	SOMATIC	VALID
SJACT007_D	16	17679983	+	1	16	24201353	+	7	DEL	SOMATIC	VALID
SJACT007_D	16	17679992	+	2	16	26385926	+	4	DEL	SOMATIC	VALID
SJACT007_D	16	17680023	+	5	16	12450573	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	17680044	+	2	16	17678500	+	1	INS	SOMATIC	VALID
SJACT007_D	16	19006487	+	1	16	12557085	+	2	INS	SOMATIC	VALID
SJACT007_D	16	19020026	-	0	16	2941240	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	19020256	+	9	16	19489990	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	19020627	+	3	16	24015402	-	3	ITX	SOMATIC	VALID

SJACT007_D	16	19489997	+	4	16	24201377	+	7	DEL	SOMATIC	VALID
SJACT007_D	16	19490019	+	0	16	19019971	+	7	INS	SOMATIC	VALID
SJACT007_D	16	19490074	+	3	16	26198385	-	1	ITX	SOMATIC	VALID
SJACT007_D	16	19607735	+	4	16	19489829	+	0	INS	SOMATIC	VALID
SJACT007_D	16	19803734	+	1	16	19803595	+	7	INS	SOMATIC	VALID
SJACT007_D	16	19803783	+	3	16	12556969	-	1	ITX	SOMATIC	VALID
SJACT007_D	16	19822409	+	0	16	20797925	+	8	DEL	SOMATIC	VALID
SJACT007_D	16	20043647	+	3	16	24010110	+	5	DEL	SOMATIC	VALID
SJACT007_D	16	20975835	-	0	16	19006298	+	4	ITX	SOMATIC	VALID
SJACT007_D	16	20980369	+	4	16	19489855	+	1	INS	SOMATIC	VALID
SJACT007_D	16	20980389	+	15	16	20975896	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	20980479	+	5	16	17681479	+	0	INS	SOMATIC	VALID
SJACT007_D	16	20988850	+	3	16	17678920	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	21022662	-	0	16	13517209	+	7	ITX	SOMATIC	VALID
SJACT007_D	16	21028433	+	1	16	20985143	+	2	INS	SOMATIC	VALID
SJACT007_D	16	21649652	-	0	16	20744815	+	4	ITX	SOMATIC	VALID
SJACT007_D	16	22486605	+	6	16	19019850	+	1	INS	SOMATIC	VALID
SJACT007_D	16	24201389	-	0	16	24266161	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	24201412	-	0	16	2941245	+	3	ITX	SOMATIC	VALID
SJACT007_D	16	24201713	+	9	16	17679994	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	24592214	+	3	16	26198252	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	26386672	+	0	16	19018315	+	4	INS	SOMATIC	VALID
SJACT007_D	16	78241430	+	5	16	78230271	-	0	ITX	SOMATIC	VALID
SJACT007_D	16	89408007	+	3	16	89436515	+	8	DEL	SOMATIC	VALID
SJACT007_D	17	3785097	+	2	14	55374326	+	2	CTX	SOMATIC	VALID
SJACT007_D	17	38366542	+	6	3	183151065	-	5	CTX	SOMATIC	VALID
SJACT007_D	17	49000844	-	3	3	183148709	+	5	CTX	SOMATIC	VALID
SJACT007_D	17	49004942	+	8	17	38364795	+	6	INS	SOMATIC	VALID
SJACT007_D	17	76616960	-	7	19	34912235	+	5	CTX	SOMATIC	VALID
SJACT007_D	18	29058172	+	5	18	29252132	+	3	DEL	SOMATIC	VALID
SJACT007_D	19	10688038	-	3	X	68423801	+	4	CTX	SOMATIC	VALID
SJACT007_D	19	18398846	-	5	4	6777021	+	6	CTX	SOMATIC	VALID
SJACT007_D	19	18400745	+	2	6	36257324	-	9	CTX	SOMATIC	VALID
SJACT007_D	19	34912235	-	5	17	76616960	+	7	CTX	SOMATIC	VALID
SJACT007_D	19	34913687	+	7	20	44451290	-	10	CTX	SOMATIC	VALID
SJACT007_D	19	34913886	-	7	7	56072209	+	7	CTX	SOMATIC	VALID
SJACT007_D	19	34914246	+	5	5	137784559	+	3	CTX	SOMATIC	VALID
SJACT007_D	2	47000	+	2	2	4305094	+	4	DEL	SOMATIC	VALID
SJACT007_D	2	73370	+	5	2	907717	+	0	DEL	SOMATIC	VALID
SJACT007_D	2	27289018	+	3	8	98770481	+	0	CTX	SOMATIC	VALID
SJACT007_D	2	44482893	+	2	2	44482779	+	1	INS	SOMATIC	VALID

SJACT007_D	2	57679256	+	3	2	57683212	+	6	DEL	SOMATIC	VALID
SJACT007_D	2	83119562	+	7	2	83191383	+	7	DEL	SOMATIC	VALID
SJACT007_D	2	91797486	-	7	1	214815497	+	2	CTX	SOMATIC	VALID
SJACT007_D	2	96583538	+	4	6	47705765	+	8	CTX	SOMATIC	VALID
SJACT007_D	2	127744381	-	8	6	41632800	+	6	CTX	SOMATIC	VALID
SJACT007_D	2	128002796	-	8	2	127997683	+	6	ITX	SOMATIC	VALID
SJACT007_D	2	128059151	+	12	2	131106666	-	12	ITX	SOMATIC	VALID
SJACT007_D	2	130494257	+	5	6	49888346	+	4	CTX	SOMATIC	VALID
SJACT007_D	2	187391497	+	3	2	187427380	+	1	DEL	SOMATIC	VALID
SJACT007_D	20	19140782	-	6	20	19125994	+	20	ITX	SOMATIC	VALID
SJACT007_D	20	19141570	+	21	20	19177877	+	10	DEL	SOMATIC	VALID
SJACT007_D	20	20118049	+	9	20	52460164	-	3	ITX	SOMATIC	VALID
SJACT007_D	20	20247819	+	7	20	62517647	+	0	DEL	SOMATIC	VALID
SJACT007_D	20	35073631	+	11	20	35070200	+	12	INS	SOMATIC	VALID
SJACT007_D	20	44451290	+	10	19	34913687	-	7	CTX	SOMATIC	VALID
SJACT007_D	20	54202032	+	5	20	55006114	+	5	DEL	SOMATIC	VALID
SJACT007_D	20	55617014	+	7	13	83293093	-	1	CTX	SOMATIC	VALID
SJACT007_D	20	57285663	-	10	20	19420596	+	5	ITX	SOMATIC	VALID
SJACT007_D	20	57288453	+	4	20	57290520	-	2	ITX	SOMATIC	VALID
SJACT007_D	20	61694009	-	11	20	60916728	+	2	ITX	SOMATIC	VALID
SJACT007_D	21	9917298	+	9	9	26342844	+	0	CTX	SOMATIC	VALID
SJACT007_D	22	49175595	+	3	22	49260077	+	5	DEL	SOMATIC	VALID
SJACT007_D	3	3546150	+	9	3	3547299	+	8	DEL	SOMATIC	VALID
SJACT007_D	3	50584534	+	3	17	76618031	-	1	CTX	SOMATIC	VALID
SJACT007_D	3	85142669	+	8	3	85608082	+	8	DEL	SOMATIC	VALID
SJACT007_D	3	99602014	+	6	3	99634657	+	5	DEL	SOMATIC	VALID
SJACT007_D	3	129358080	+	3	3	129352037	+	5	INS	SOMATIC	VALID
SJACT007_D	3	139994592	+	8	3	139994632	+	3	DEL	SOMATIC	VALID
SJACT007_D	3	174201067	+	5	3	174321062	+	5	DEL	SOMATIC	VALID
SJACT007_D	3	174444980	+	3	3	174456492	+	2	DEL	SOMATIC	VALID
SJACT007_D	3	183148709	-	5	17	49000844	+	3	CTX	SOMATIC	VALID
SJACT007_D	3	183151065	+	5	17	38366542	-	6	CTX	SOMATIC	VALID
SJACT007_D	4	6777021	-	6	19	18398846	+	5	CTX	SOMATIC	VALID
SJACT007_D	4	6778255	+	14	19	10688345	-	1	CTX	SOMATIC	VALID
SJACT007_D	5	137791323	+	4	6	36256927	+	8	CTX	SOMATIC	VALID
SJACT007_D	5	138576113	-	2	12	49151718	+	5	CTX	SOMATIC	VALID
SJACT007_D	5	138578776	+	4	17	38365991	+	7	CTX	SOMATIC	VALID
SJACT007_D	6	36257324	+	9	19	18400745	-	2	CTX	SOMATIC	VALID
SJACT007_D	6	41632800	-	6	2	127744381	+	8	CTX	SOMATIC	VALID
SJACT007_D	6	47707732	+	4	6	48507525	-	3	ITX	SOMATIC	VALID
SJACT007_D	6	49891706	+	7	2	130862219	+	1	CTX	SOMATIC	VALID

SJACT007_D	6	54434951	-	6	9	43582801	+	2	CTX	SOMATIC	VALID
SJACT007_D	6	56980961	+	2	6	56981102	+	5	DEL	SOMATIC	VALID
SJACT007_D	6	107647020	+	6	6	107854748	+	12	DEL	SOMATIC	VALID
SJACT007_D	6	154035643	+	0	6	159332190	+	3	DEL	SOMATIC	VALID
SJACT007_D	6	165247547	-	3	6	151667679	+	5	ITX	SOMATIC	VALID
SJACT007_D	7	56072209	-	7	19	34913886	+	7	CTX	SOMATIC	VALID
SJACT007_D	7	56072479	+	5	20	44450588	+	10	CTX	SOMATIC	VALID
SJACT007_D	8	729845	-	2	8	719581	+	5	ITX	SOMATIC	VALID
SJACT007_D	8	141683461	+	4	8	141934000	+	2	DEL	SOMATIC	VALID
SJACT007_D	9	14984512	+	9	9	18220464	+	3	DEL	SOMATIC	VALID
SJACT007_D	9	15199094	-	0	9	26243906	+	6	ITX	SOMATIC	VALID
SJACT007_D	9	17808768	+	5	9	14481180	+	2	INS	SOMATIC	VALID
SJACT007_D	9	17814435	+	4	9	17808179	+	5	INS	SOMATIC	VALID
SJACT007_D	9	19802760	-	4	9	15571235	+	9	ITX	SOMATIC	VALID
SJACT007_D	9	26342941	+	0	9	23553491	+	6	INS	SOMATIC	VALID
SJACT007_D	9	43582801	-	2	6	54434951	+	6	CTX	SOMATIC	VALID
SJACT007_D	9	80433703	+	3	9	80531510	+	2	DEL	SOMATIC	VALID
SJACT007_D	9	111639046	+	10	9	111831973	+	9	DEL	SOMATIC	VALID
SJACT007_D	9	112246856	+	7	9	112368353	+	5	DEL	SOMATIC	VALID
SJACT007_D	9	123686619	+	10	9	124025597	+	4	DEL	SOMATIC	VALID
SJACT007_D	9	130985559	-	7	15	90128935	+	3	CTX	SOMATIC	VALID
SJACT007_D	9	130986429	+	2	10	77008274	-	4	CTX	SOMATIC	VALID
SJACT007_D	X	68423801	-	4	19	10688038	+	3	CTX	SOMATIC	VALID
SJACT007_D	X	68424023	+	2	10	89374735	+	7	CTX	SOMATIC	VALID
SJACT007_D	X	149705954	+	7	X	149702426	+	2	INS	SOMATIC	VALID
SJACT008_D	1	5909907	+	11	1	5866392	+	15	INS	SOMATIC	VALID
SJACT008_D	1	22248456	+	3	1	21422128	+	4	INS	SOMATIC	VALID
SJACT008_D	1	22325450	+	22	1	22318579	+	7	INS	SOMATIC	VALID
SJACT008_D	1	22388629	+	12	1	22249375	+	8	INS	SOMATIC	VALID
SJACT008_D	1	26042255	+	10	1	26025505	+	14	INS	SOMATIC	VALID
SJACT008_D	1	27951496	-	9	16	88695685	+	4	CTX	SOMATIC	VALID
SJACT008_D	1	31344597	+	5	1	31316676	+	6	INS	SOMATIC	VALID
SJACT008_D	1	33794366	+	5	1	32883861	+	2	INS	SOMATIC	VALID
SJACT008_D	1	55382359	+	6	1	55343691	+	5	INS	SOMATIC	VALID
SJACT008_D	1	59635068	+	12	1	59624973	+	6	INS	SOMATIC	VALID
SJACT008_D	1	59967527	-	0	22	38027793	+	5	CTX	SOMATIC	VALID
SJACT008_D	1	77265558	+	8	1	77491712	+	7	DEL	SOMATIC	VALID
SJACT008_D	1	77328845	+	14	1	77330146	-	3	ITX	SOMATIC	VALID
SJACT008_D	1	77328869	-	7	12	34460496	+	3	CTX	SOMATIC	VALID
SJACT008_D	1	109459911	+	4	1	109861983	-	4	ITX	SOMATIC	VALID
SJACT008_D	1	109497466	+	5	X	46954784	-	0	CTX	SOMATIC	VALID

SJACT008_D	1	109951163	-	4	1	109476411	+	6	ITX	SOMATIC	VALID
SJACT008_D	1	109981305	+	7	1	109389497	+	9	INS	SOMATIC	VALID
SJACT008_D	1	110162052	+	9	1	110159501	+	5	INS	SOMATIC	VALID
SJACT008_D	1	117575060	+	7	1	117528530	+	8	INS	SOMATIC	VALID
SJACT008_D	1	161282984	+	11	1	59967611	-	0	ITX	SOMATIC	VALID
SJACT008_D	1	197062450	+	11	1	197079052	+	9	DEL	SOMATIC	VALID
SJACT008_D	1	203610263	+	12	1	161284215	-	1	ITX	SOMATIC	VALID
SJACT008_D	1	205362155	+	3	1	205337469	+	3	INS	SOMATIC	VALID
SJACT008_D	1	223874471	-	14	1	27832832	+	8	ITX	SOMATIC	VALID
SJACT008_D	1	229330800	+	3	1	229281716	+	3	INS	SOMATIC	VALID
SJACT008_D	10	1145887	+	4	10	1145955	+	0	DEL	SOMATIC	VALID
SJACT008_D	10	19597107	+	4	10	19597776	+	4	DEL	SOMATIC	VALID
SJACT008_D	10	19598461	+	2	9	121922495	-	5	CTX	SOMATIC	VALID
SJACT008_D	10	34846777	+	0	10	34929026	+	6	DEL	SOMATIC	VALID
SJACT008_D	10	37157628	+	2	9	121394224	+	2	CTX	SOMATIC	VALID
SJACT008_D	10	61394998	+	10	10	61494783	+	13	DEL	SOMATIC	VALID
SJACT008_D	10	61534273	+	8	10	61367843	+	10	INS	SOMATIC	VALID
SJACT008_D	10	70680381	+	5	10	70645596	+	8	INS	SOMATIC	VALID
SJACT008_D	10	71441345	+	1	10	70703173	+	2	INS	SOMATIC	VALID
SJACT008_D	10	88238437	+	10	10	66533940	+	3	INS	SOMATIC	VALID
SJACT008_D	10	88788206	+	8	10	88750274	+	13	INS	SOMATIC	VALID
SJACT008_D	10	91136645	+	8	10	91144720	+	12	DEL	SOMATIC	VALID
SJACT008_D	10	120201390	+	3	10	120200996	+	4	INS	SOMATIC	VALID
SJACT008_D	10	124279284	+	4	10	123330187	+	7	INS	SOMATIC	VALID
SJACT008_D	10	134977433	+	3	10	134977650	+	0	DEL	SOMATIC	VALID
SJACT008_D	11	44435170	+	2	11	44434761	+	11	INS	SOMATIC	VALID
SJACT008_D	11	47250632	+	3	20	32025575	+	2	CTX	SOMATIC	VALID
SJACT008_D	11	68628214	+	3	11	68624194	+	8	INS	SOMATIC	VALID
SJACT008_D	11	72304658	+	2	11	72619015	+	3	DEL	SOMATIC	VALID
SJACT008_D	11	83370974	+	6	2	185219426	-	7	CTX	SOMATIC	VALID
SJACT008_D	12	34461731	+	6	12	34465002	+	9	DEL	SOMATIC	VALID
SJACT008_D	12	58780099	+	7	12	57839911	+	5	INS	SOMATIC	VALID
SJACT008_D	12	100495654	+	3	12	100610556	+	2	DEL	SOMATIC	VALID
SJACT008_D	12	106769291	+	6	12	106716353	+	12	INS	SOMATIC	VALID
SJACT008_D	12	109840620	+	9	17	55643146	+	5	CTX	SOMATIC	VALID
SJACT008_D	12	111139544	+	3	12	111139874	+	2	DEL	SOMATIC	VALID
SJACT008_D	12	115531825	+	4	12	115532084	+	3	DEL	SOMATIC	VALID
SJACT008_D	12	121879826	-	0	1	32154570	+	3	CTX	SOMATIC	VALID
SJACT008_D	12	122468962	+	1	11	85735781	+	2	CTX	SOMATIC	VALID
SJACT008_D	12	122505906	+	5	12	122502451	+	4	INS	SOMATIC	VALID
SJACT008_D	12	125093169	+	15	12	125061508	+	12	INS	SOMATIC	VALID

SJACT008_D	12	125096364	+	4	12	125111448	+	6	DEL	SOMATIC	VALID
SJACT008_D	12	125118018	+	1	12	125073870	+	26	INS	SOMATIC	VALID
SJACT008_D	12	125235300	+	2	12	125380435	+	2	DEL	SOMATIC	VALID
SJACT008_D	12	125401238	+	8	12	125360605	+	8	INS	SOMATIC	VALID
SJACT008_D	13	102278018	+	2	13	102312350	+	5	DEL	SOMATIC	VALID
SJACT008_D	13	102286732	+	3	13	102341025	+	5	DEL	SOMATIC	VALID
SJACT008_D	13	102338297	+	5	13	102286507	+	5	INS	SOMATIC	VALID
SJACT008_D	14	19472581	+	6	14	26758230	+	15	DEL	SOMATIC	VALID
SJACT008_D	14	20359859	+	7	9	106134074	+	4	CTX	SOMATIC	VALID
SJACT008_D	14	20450130	+	8	9	109105281	-	9	CTX	SOMATIC	VALID
SJACT008_D	14	20454314	-	1	20	44761991	+	6	CTX	SOMATIC	VALID
SJACT008_D	14	20454518	+	7	20	44729099	-	0	CTX	SOMATIC	VALID
SJACT008_D	14	21140240	+	1	14	21137725	+	8	INS	SOMATIC	VALID
SJACT008_D	14	21285927	+	9	14	23564731	+	2	DEL	SOMATIC	VALID
SJACT008_D	14	21462697	+	4	X	152047497	-	5	CTX	SOMATIC	VALID
SJACT008_D	14	21597530	+	13	11	64804683	-	1	CTX	SOMATIC	VALID
SJACT008_D	14	21929782	+	18	9	118995258	-	11	CTX	SOMATIC	VALID
SJACT008_D	14	23432277	+	3	14	23029165	+	0	INS	SOMATIC	VALID
SJACT008_D	14	23569427	+	8	18	14181881	-	6	CTX	SOMATIC	VALID
SJACT008_D	14	23675766	+	7	14	24780723	+	4	DEL	SOMATIC	VALID
SJACT008_D	14	26758169	+	11	9	118990598	+	23	CTX	SOMATIC	VALID
SJACT008_D	14	26767748	+	2	19	42627062	+	18	CTX	SOMATIC	VALID
SJACT008_D	14	45582433	+	0	14	45696577	+	6	DEL	SOMATIC	VALID
SJACT008_D	14	56870507	+	6	14	56846574	+	3	INS	SOMATIC	VALID
SJACT008_D	14	72189813	+	4	14	77958757	+	7	DEL	SOMATIC	VALID
SJACT008_D	14	72238505	+	8	14	101211115	-	13	ITX	SOMATIC	VALID
SJACT008_D	14	79116870	+	8	19	36347555	-	5	CTX	SOMATIC	VALID
SJACT008_D	14	87484260	+	11	7	75535271	-	5	CTX	SOMATIC	VALID
SJACT008_D	14	91134423	-	6	14	91112983	+	3	ITX	SOMATIC	VALID
SJACT008_D	14	93451316	+	10	19	50181393	+	7	CTX	SOMATIC	VALID
SJACT008_D	14	96512860	+	7	19	50221225	-	6	CTX	SOMATIC	VALID
SJACT008_D	14	97609521	+	13	14	101052739	-	7	ITX	SOMATIC	VALID
SJACT008_D	14	99428382	+	12	7	65773095	-	14	CTX	SOMATIC	VALID
SJACT008_D	14	101069937	-	15	14	101069558	+	18	ITX	SOMATIC	VALID
SJACT008_D	14	101069942	+	15	14	101048457	+	11	INS	SOMATIC	VALID
SJACT008_D	14	103106368	+	15	14	106208755	-	10	ITX	SOMATIC	VALID
SJACT008_D	14	103185727	-	7	14	103184160	+	10	ITX	SOMATIC	VALID
SJACT008_D	14	103186046	+	44	14	106211507	+	7	DEL	SOMATIC	VALID
SJACT008_D	14	104181198	+	9	19	54448077	+	6	CTX	SOMATIC	VALID
SJACT008_D	14	104276213	+	5	20	55834810	-	20	CTX	SOMATIC	VALID
SJACT008_D	14	104299280	+	5	20	55840015	+	5	CTX	SOMATIC	VALID

SJACT008_D	14	104348645	-	10	14	104274610	+	12	ITX	SOMATIC	VALID
SJACT008_D	14	104349936	+	9	20	54910990	-	13	CTX	SOMATIC	VALID
SJACT008_D	14	104358989	+	10	19	33616637	+	7	CTX	SOMATIC	VALID
SJACT008_D	14	104371201	+	17	20	54857277	+	18	CTX	SOMATIC	VALID
SJACT008_D	14	105950595	+	28	19	50213501	+	18	CTX	SOMATIC	VALID
SJACT008_D	14	106214286	+	24	14	103661873	+	30	INS	SOMATIC	VALID
SJACT008_D	15	23640673	+	9	9	109076195	-	6	CTX	SOMATIC	VALID
SJACT008_D	15	23833984	-	9	15	23831235	+	12	ITX	SOMATIC	VALID
SJACT008_D	15	23852382	+	7	9	105509912	-	13	CTX	SOMATIC	VALID
SJACT008_D	15	24526639	+	2	15	24526775	+	2	DEL	SOMATIC	VALID
SJACT008_D	15	25672604	+	4	8	112947548	+	3	CTX	SOMATIC	VALID
SJACT008_D	15	26875538	+	6	15	27416709	+	1	DEL	SOMATIC	VALID
SJACT008_D	15	27153305	+	4	8	112722047	-	3	CTX	SOMATIC	VALID
SJACT008_D	15	27624788	+	4	9	113822313	-	6	CTX	SOMATIC	VALID
SJACT008_D	15	48718307	+	4	20	34171693	+	5	CTX	SOMATIC	VALID
SJACT008_D	15	48816385	+	11	15	48866479	+	6	DEL	SOMATIC	VALID
SJACT008_D	15	52701836	+	3	15	52480564	-	1	ITX	SOMATIC	VALID
SJACT008_D	15	52724794	+	5	9	107037620	-	7	CTX	SOMATIC	VALID
SJACT008_D	15	52796654	+	9	15	52807584	+	1	DEL	SOMATIC	VALID
SJACT008_D	15	52852513	+	13	9	114498195	+	5	CTX	SOMATIC	VALID
SJACT008_D	15	52953273	+	6	9	126809387	+	8	CTX	SOMATIC	VALID
SJACT008_D	15	52962903	+	7	9	119478827	+	10	CTX	SOMATIC	VALID
SJACT008_D	15	53122705	+	7	9	119472898	+	2	CTX	SOMATIC	VALID
SJACT008_D	15	53464638	+	8	15	53122252	+	4	INS	SOMATIC	VALID
SJACT008_D	15	53700138	+	4	20	43890120	+	3	CTX	SOMATIC	VALID
SJACT008_D	15	53959544	+	64	1	9979595	-	27	CTX	SOMATIC	VALID
SJACT008_D	15	55564643	+	2	2	179116453	-	13	CTX	SOMATIC	VALID
SJACT008_D	15	56074214	+	3	20	46179413	+	7	CTX	SOMATIC	VALID
SJACT008_D	15	56080231	+	13	GL000220.1	142273	+	0	CTX	SOMATIC	VALID
SJACT008_D	15	56081513	+	9	GL000220.1	137636	-	0	CTX	SOMATIC	VALID
SJACT008_D	15	56329686	+	3	20	42198262	-	2	CTX	SOMATIC	VALID
SJACT008_D	15	56377070	+	1	15	56377502	+	5	DEL	SOMATIC	VALID
SJACT008_D	15	56415336	+	14	9	107337569	-	6	CTX	SOMATIC	VALID
SJACT008_D	15	56448768	-	11	15	56446466	+	5	ITX	SOMATIC	VALID
SJACT008_D	15	56449248	+	8	9	107537250	-	5	CTX	SOMATIC	VALID
SJACT008_D	15	56474488	+	14	9	107360791	-	7	CTX	SOMATIC	VALID
SJACT008_D	15	56532989	+	20	20	52675773	+	5	CTX	SOMATIC	VALID
SJACT008_D	15	56656778	+	3	15	56656938	+	6	DEL	SOMATIC	VALID
SJACT008_D	15	56659719	+	6	9	123293722	+	9	CTX	SOMATIC	VALID
SJACT008_D	15	57733351	+	12	20	44774407	-	20	CTX	SOMATIC	VALID
SJACT008_D	15	59225096	-	31	15	56267557	+	43	ITX	SOMATIC	VALID

SJACT008_D	15	59236113	+	1	15	52110319	+	59	INS	SOMATIC	VALID
SJACT008_D	15	60280641	+	9	20	46205963	-	16	CTX	SOMATIC	VALID
SJACT008_D	15	61012769	+	10	15	60970731	+	18	INS	SOMATIC	VALID
SJACT008_D	15	61079014	+	6	15	60911949	-	0	ITX	SOMATIC	VALID
SJACT008_D	15	62748671	-	2	15	29755697	+	3	ITX	SOMATIC	VALID
SJACT008_D	15	62750890	+	4	15	63223614	+	1	DEL	SOMATIC	VALID
SJACT008_D	15	63524350	+	5	15	28168496	-	1	ITX	SOMATIC	VALID
SJACT008_D	15	63925811	-	23	15	31387195	+	18	ITX	SOMATIC	VALID
SJACT008_D	15	64293207	-	3	15	52474630	+	4	ITX	SOMATIC	VALID
SJACT008_D	15	65388509	+	9	15	70099865	-	4	ITX	SOMATIC	VALID
SJACT008_D	15	68631852	-	9	15	68630501	+	11	ITX	SOMATIC	VALID
SJACT008_D	15	68633406	+	8	15	68156820	+	8	INS	SOMATIC	VALID
SJACT008_D	15	68910290	+	6	1	227244235	+	5	CTX	SOMATIC	VALID
SJACT008_D	15	68919341	+	10	20	49225638	-	1	CTX	SOMATIC	VALID
SJACT008_D	15	69616893	+	9	2	68036107	+	5	CTX	SOMATIC	VALID
SJACT008_D	15	69618215	+	2	3	148915301	-	5	CTX	SOMATIC	VALID
SJACT008_D	15	69756027	+	7	4	55266734	-	0	CTX	SOMATIC	VALID
SJACT008_D	15	69765095	+	11	2	66531665	+	9	CTX	SOMATIC	VALID
SJACT008_D	15	70102461	-	7	15	56081536	+	9	ITX	SOMATIC	VALID
SJACT008_D	15	70102663	+	5	15	55587804	+	10	INS	SOMATIC	VALID
SJACT008_D	15	74639237	-	3	15	61009896	+	3	ITX	SOMATIC	VALID
SJACT008_D	15	74837600	+	6	15	60911892	+	0	INS	SOMATIC	VALID
SJACT008_D	15	76497114	+	4	15	75969691	+	1	INS	SOMATIC	VALID
SJACT008_D	15	78371271	-	9	14	101164737	+	10	CTX	SOMATIC	VALID
SJACT008_D	15	78421066	+	2	1	26732566	+	1	CTX	SOMATIC	VALID
SJACT008_D	15	98110098	+	4	15	98111876	+	2	DEL	SOMATIC	VALID
SJACT008_D	16	631751	+	7	16	590767	+	7	INS	SOMATIC	VALID
SJACT008_D	16	29205650	+	7	16	29198722	+	4	INS	SOMATIC	VALID
SJACT008_D	16	29205650	+	7	16	88187049	+	3	DEL	SOMATIC	VALID
SJACT008_D	16	67948474	+	6	16	67913639	+	2	INS	SOMATIC	VALID
SJACT008_D	16	74823257	+	4	16	73955909	+	5	INS	SOMATIC	VALID
SJACT008_D	16	83986238	+	7	16	83947191	+	4	INS	SOMATIC	VALID
SJACT008_D	16	89700203	+	4	16	89700071	+	0	INS	SOMATIC	VALID
SJACT008_D	17	4056836	+	9	17	4051972	+	6	INS	SOMATIC	VALID
SJACT008_D	17	20202583	+	3	17	19674951	+	1	INS	SOMATIC	VALID
SJACT008_D	17	39981578	+	7	19	33827935	+	2	CTX	SOMATIC	VALID
SJACT008_D	17	44257171	+	2	20	33438986	-	3	CTX	SOMATIC	VALID
SJACT008_D	17	48582125	+	8	17	48574062	+	8	INS	SOMATIC	VALID
SJACT008_D	17	56285962	+	11	12	109044129	+	6	CTX	SOMATIC	VALID
SJACT008_D	17	62368554	+	11	17	74654204	-	7	ITX	SOMATIC	VALID
SJACT008_D	17	79928417	+	7	17	79892456	+	2	INS	SOMATIC	VALID

SJACT008_D	18	10668077	-	7	14	21269464	+	6	CTX	SOMATIC	VALID
SJACT008_D	18	10672116	+	9	9	118998366	+	5	CTX	SOMATIC	VALID
SJACT008_D	18	11899643	+	2	18	12713406	-	3	ITX	SOMATIC	VALID
SJACT008_D	18	13250859	-	4	18	11708348	+	4	ITX	SOMATIC	VALID
SJACT008_D	18	33919695	+	6	18	34249043	-	0	ITX	SOMATIC	VALID
SJACT008_D	18	34250977	-	4	18	34234567	+	2	ITX	SOMATIC	VALID
SJACT008_D	18	43704121	+	5	18	43717590	+	5	DEL	SOMATIC	VALID
SJACT008_D	19	4546338	+	3	19	4522217	+	3	INS	SOMATIC	VALID
SJACT008_D	19	10357920	-	3	11	81405673	+	3	CTX	SOMATIC	VALID
SJACT008_D	19	15390145	+	2	19	15465146	+	7	DEL	SOMATIC	VALID
SJACT008_D	19	17810962	+	5	19	17771084	+	10	INS	SOMATIC	VALID
SJACT008_D	19	17976524	+	10	19	17974823	+	4	INS	SOMATIC	VALID
SJACT008_D	19	29657170	+	9	19	29695494	-	8	ITX	SOMATIC	VALID
SJACT008_D	19	29776863	+	3	19	33882640	+	7	DEL	SOMATIC	VALID
SJACT008_D	19	29841089	+	4	19	33838295	+	8	DEL	SOMATIC	VALID
SJACT008_D	19	29841845	+	5	19	33926757	+	10	DEL	SOMATIC	VALID
SJACT008_D	19	30363658	+	1	19	30288228	+	2	INS	SOMATIC	VALID
SJACT008_D	19	30535187	+	4	19	35325550	+	2	DEL	SOMATIC	VALID
SJACT008_D	19	30584003	-	7	19	29779492	+	8	ITX	SOMATIC	VALID
SJACT008_D	19	30613422	+	9	19	35997283	-	8	ITX	SOMATIC	VALID
SJACT008_D	19	30750713	+	0	19	29867306	+	3	INS	SOMATIC	VALID
SJACT008_D	19	33324474	+	8	19	33372158	-	8	ITX	SOMATIC	VALID
SJACT008_D	19	33346703	+	6	20	54895693	-	11	CTX	SOMATIC	VALID
SJACT008_D	19	33355391	+	4	20	55908858	+	6	CTX	SOMATIC	VALID
SJACT008_D	19	33365865	+	6	19	33449745	+	10	DEL	SOMATIC	VALID
SJACT008_D	19	33409274	+	6	19	33413684	+	7	DEL	SOMATIC	VALID
SJACT008_D	19	33412901	+	10	19	33590027	-	8	ITX	SOMATIC	VALID
SJACT008_D	19	33423545	+	4	20	55856045	+	8	CTX	SOMATIC	VALID
SJACT008_D	19	33444085	+	12	20	54771406	+	7	CTX	SOMATIC	VALID
SJACT008_D	19	33450262	+	6	19	33396656	+	8	INS	SOMATIC	VALID
SJACT008_D	19	33536596	+	10	20	54775696	-	19	CTX	SOMATIC	VALID
SJACT008_D	19	33540192	+	6	14	104340396	+	8	CTX	SOMATIC	VALID
SJACT008_D	19	33560057	+	9	14	104370664	+	14	CTX	SOMATIC	VALID
SJACT008_D	19	33574494	+	11	19	33442869	+	10	INS	SOMATIC	VALID
SJACT008_D	19	33598948	+	14	14	104341924	-	0	CTX	SOMATIC	VALID
SJACT008_D	19	33605791	+	9	19	33531875	+	15	INS	SOMATIC	VALID
SJACT008_D	19	33623370	+	2	19	33370830	+	10	INS	SOMATIC	VALID
SJACT008_D	19	33776421	+	2	19	33927446	-	9	ITX	SOMATIC	VALID
SJACT008_D	19	33813371	-	1	17	39981034	+	3	CTX	SOMATIC	VALID
SJACT008_D	19	33833911	+	15	19	35436128	-	7	ITX	SOMATIC	VALID
SJACT008_D	19	33884958	+	6	19	30499366	+	5	INS	SOMATIC	VALID

SJACT008_D	19	35388835	+	11	19	35885169	+	10	DEL	SOMATIC	VALID
SJACT008_D	19	35472180	-	7	19	31040110	+	3	ITX	SOMATIC	VALID
SJACT008_D	19	35485554	+	2	19	34698813	+	8	INS	SOMATIC	VALID
SJACT008_D	19	37019282	-	5	19	27890928	+	11	ITX	SOMATIC	VALID
SJACT008_D	19	37164898	+	6	6	158093716	-	0	CTX	SOMATIC	VALID
SJACT008_D	19	41659391	+	9	19	36949089	+	4	INS	SOMATIC	VALID
SJACT008_D	19	42665894	+	15	9	118981060	+	14	CTX	SOMATIC	VALID
SJACT008_D	19	42674551	-	15	14	21927265	+	8	CTX	SOMATIC	VALID
SJACT008_D	19	42683365	+	8	9	118990576	-	12	CTX	SOMATIC	VALID
SJACT008_D	19	49140620	+	7	14	84649351	+	6	CTX	SOMATIC	VALID
SJACT008_D	19	50219877	-	7	19	50227440	+	10	ITX	SOMATIC	VALID
SJACT008_D	19	50224092	+	3	7	75520513	+	0	CTX	SOMATIC	VALID
SJACT008_D	19	50229337	+	4	19	58133381	-	5	ITX	SOMATIC	VALID
SJACT008_D	19	50758734	+	8	9	38080264	-	9	CTX	SOMATIC	VALID
SJACT008_D	19	51887512	-	4	19	51812740	+	6	ITX	SOMATIC	VALID
SJACT008_D	19	51999324	+	4	3	98022142	+	1	CTX	SOMATIC	VALID
SJACT008_D	19	52004979	+	3	9	115523569	+	3	CTX	SOMATIC	VALID
SJACT008_D	19	52205630	+	2	9	127519886	+	3	CTX	SOMATIC	VALID
SJACT008_D	19	52576667	+	3	19	55766331	-	3	ITX	SOMATIC	VALID
SJACT008_D	19	54427889	+	2	19	50982435	-	1	ITX	SOMATIC	VALID
SJACT008_D	19	54444523	+	5	19	50980085	-	1	ITX	SOMATIC	VALID
SJACT008_D	19	54451444	+	4	19	50972023	+	7	INS	SOMATIC	VALID
SJACT008_D	19	54749029	-	10	19	54748037	+	6	ITX	SOMATIC	VALID
SJACT008_D	19	54750147	+	8	19	54750847	-	14	ITX	SOMATIC	VALID
SJACT008_D	19	54794797	+	9	19	54795856	-	16	ITX	SOMATIC	VALID
SJACT008_D	19	55064432	+	8	19	55741103	+	7	DEL	SOMATIC	VALID
SJACT008_D	19	55466332	+	10	19	54750459	+	17	INS	SOMATIC	VALID
SJACT008_D	19	55678457	+	5	19	55709050	+	1	DEL	SOMATIC	VALID
SJACT008_D	19	55741327	+	6	19	55746172	+	9	DEL	SOMATIC	VALID
SJACT008_D	19	55742641	+	3	1	9939066	-	7	CTX	SOMATIC	VALID
SJACT008_D	19	55742641	+	11	19	56540972	-	3	ITX	SOMATIC	VALID
SJACT008_D	19	55747178	-	8	19	55742272	+	4	ITX	SOMATIC	VALID
SJACT008_D	19	55814089	+	1	20	37453191	+	5	CTX	SOMATIC	VALID
SJACT008_D	19	55860391	+	5	19	55549037	+	11	INS	SOMATIC	VALID
SJACT008_D	19	56920312	+	4	14	104168910	+	3	CTX	SOMATIC	VALID
SJACT008_D	19	56921669	-	6	19	50998197	+	4	ITX	SOMATIC	VALID
SJACT008_D	19	56925343	-	6	19	53576954	+	4	ITX	SOMATIC	VALID
SJACT008_D	19	57030378	-	3	19	54449873	+	8	ITX	SOMATIC	VALID
SJACT008_D	19	57148509	+	4	19	56193010	+	0	INS	SOMATIC	VALID
SJACT008_D	19	57163050	+	7	19	58919947	+	0	DEL	SOMATIC	VALID
SJACT008_D	19	57184113	-	9	19	57166934	+	12	ITX	SOMATIC	VALID

SJACT008_D	19	57550361	+	3	19	57486450	+	2	INS	SOMATIC	VALID
SJACT008_D	19	58186909	+	5	14	93442404	+	5	CTX	SOMATIC	VALID
SJACT008_D	19	58215990	+	3	19	52203443	+	4	INS	SOMATIC	VALID
SJACT008_D	19	58271187	-	1	19	56215783	+	4	ITX	SOMATIC	VALID
SJACT008_D	19	58275910	+	6	19	50756043	+	7	INS	SOMATIC	VALID
SJACT008_D	19	58389586	-	8	14	96518371	+	6	CTX	SOMATIC	VALID
SJACT008_D	19	58394378	+	9	7	75523530	+	7	CTX	SOMATIC	VALID
SJACT008_D	19	58744457	+	4	20	52782743	-	6	CTX	SOMATIC	VALID
SJACT008_D	19	58755739	+	6	20	46336964	+	8	CTX	SOMATIC	VALID
SJACT008_D	19	58897105	+	13	20	62173260	-	10	CTX	SOMATIC	VALID
SJACT008_D	19	58911733	+	2	20	46340192	-	7	CTX	SOMATIC	VALID
SJACT008_D	19	58919025	+	3	20	62183542	+	10	CTX	SOMATIC	VALID
SJACT008_D	19	58965739	+	31	19	58894546	+	16	INS	SOMATIC	VALID
SJACT008_D	19	58965994	-	13	19	58742102	+	12	ITX	SOMATIC	VALID
SJACT008_D	19	58994252	+	10	20	46341734	-	4	CTX	SOMATIC	VALID
SJACT008_D	19	59080219	+	15	20	51777687	+	12	CTX	SOMATIC	VALID
SJACT008_D	2	20787196	+	6	2	20752665	+	4	INS	SOMATIC	VALID
SJACT008_D	2	20962030	+	8	2	20982501	+	1	DEL	SOMATIC	VALID
SJACT008_D	2	25019570	+	3	9	123364972	-	38	CTX	SOMATIC	VALID
SJACT008_D	2	26828700	+	4	2	26815580	+	6	INS	SOMATIC	VALID
SJACT008_D	2	39060532	+	5	2	51618408	-	5	ITX	SOMATIC	VALID
SJACT008_D	2	39060973	-	9	2	39048547	+	7	ITX	SOMATIC	VALID
SJACT008_D	2	41396338	+	7	3	127035766	+	9	CTX	SOMATIC	VALID
SJACT008_D	2	44723946	+	5	2	44715949	-	4	ITX	SOMATIC	VALID
SJACT008_D	2	44950918	+	6	2	73512527	-	3	ITX	SOMATIC	VALID
SJACT008_D	2	44955509	+	3	2	76744105	-	7	ITX	SOMATIC	VALID
SJACT008_D	2	50153795	+	2	2	50163871	-	3	ITX	SOMATIC	VALID
SJACT008_D	2	50160031	+	2	2	73511972	+	1	DEL	SOMATIC	VALID
SJACT008_D	2	51473746	+	9	2	135877781	+	5	DEL	SOMATIC	VALID
SJACT008_D	2	51766232	+	3	2	51763019	+	5	INS	SOMATIC	VALID
SJACT008_D	2	66145589	+	7	2	66531179	-	16	ITX	SOMATIC	VALID
SJACT008_D	2	66146820	-	4	15	69617597	+	5	CTX	SOMATIC	VALID
SJACT008_D	2	66152297	+	3	2	66161910	-	13	ITX	SOMATIC	VALID
SJACT008_D	2	66159439	-	12	15	69764791	+	2	CTX	SOMATIC	VALID
SJACT008_D	2	66162531	+	6	2	66145231	+	2	INS	SOMATIC	VALID
SJACT008_D	2	66532586	+	9	3	127034528	-	9	CTX	SOMATIC	VALID
SJACT008_D	2	73512535	-	2	2	44951045	+	4	ITX	SOMATIC	VALID
SJACT008_D	2	77588824	-	2	2	44950682	+	2	ITX	SOMATIC	VALID
SJACT008_D	2	89010246	+	1	15	69055988	+	3	CTX	SOMATIC	VALID
SJACT008_D	2	113651383	-	8	20	45266543	+	4	CTX	SOMATIC	VALID
SJACT008_D	2	115289454	-	6	20	53328624	+	2	CTX	SOMATIC	VALID

SJACT008_D	2	124118624	+	4	15	52468544	+	7	CTX	SOMATIC	VALID
SJACT008_D	2	129573091	-	4	14	20353814	+	3	CTX	SOMATIC	VALID
SJACT008_D	2	177159776	+	5	2	66170203	+	2	INS	SOMATIC	VALID
SJACT008_D	2	236104901	+	5	21	45061005	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	1782340	-	0	1	161282745	+	3	CTX	SOMATIC	VALID
SJACT008_D	20	1783337	-	0	14	72199468	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	1817884	+	2	20	1781898	+	5	INS	SOMATIC	VALID
SJACT008_D	20	14847726	+	10	20	14852700	+	5	DEL	SOMATIC	VALID
SJACT008_D	20	32060419	+	3	11	47211071	+	7	CTX	SOMATIC	VALID
SJACT008_D	20	34209259	+	11	15	48677372	+	9	CTX	SOMATIC	VALID
SJACT008_D	20	35690138	+	4	6	146527333	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	36040250	-	5	15	56079868	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	36609396	+	14	15	56080246	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	37303366	+	0	20	42197762	+	7	DEL	SOMATIC	VALID
SJACT008_D	20	38212325	+	3	20	61727610	-	8	ITX	SOMATIC	VALID
SJACT008_D	20	38220454	-	2	20	46314486	+	2	ITX	SOMATIC	VALID
SJACT008_D	20	41719403	+	6	20	41837511	+	8	DEL	SOMATIC	VALID
SJACT008_D	20	41769486	+	5	20	41865531	+	12	DEL	SOMATIC	VALID
SJACT008_D	20	41804237	+	2	20	55579228	+	4	DEL	SOMATIC	VALID
SJACT008_D	20	41839505	+	10	20	44748670	+	2	DEL	SOMATIC	VALID
SJACT008_D	20	41850697	+	4	9	110778298	-	12	CTX	SOMATIC	VALID
SJACT008_D	20	41868111	+	8	20	41803868	+	8	INS	SOMATIC	VALID
SJACT008_D	20	41896841	-	3	20	41849443	+	7	ITX	SOMATIC	VALID
SJACT008_D	20	41897164	+	6	9	111971425	-	1	CTX	SOMATIC	VALID
SJACT008_D	20	41901109	+	7	20	41708892	+	11	INS	SOMATIC	VALID
SJACT008_D	20	42373433	+	5	9	115555243	-	2	CTX	SOMATIC	VALID
SJACT008_D	20	42448161	+	4	20	53360950	-	6	ITX	SOMATIC	VALID
SJACT008_D	20	42660648	-	5	20	42136977	+	2	ITX	SOMATIC	VALID
SJACT008_D	20	43157204	+	3	9	115524484	-	2	CTX	SOMATIC	VALID
SJACT008_D	20	43237416	+	7	9	123292609	-	7	CTX	SOMATIC	VALID
SJACT008_D	20	43539116	+	2	9	126730843	-	15	CTX	SOMATIC	VALID
SJACT008_D	20	43600610	+	2	9	123291233	+	9	CTX	SOMATIC	VALID
SJACT008_D	20	44744228	-	8	20	41760119	+	7	ITX	SOMATIC	VALID
SJACT008_D	20	44748373	+	8	20	55591926	-	7	ITX	SOMATIC	VALID
SJACT008_D	20	44751764	+	3	20	44728925	+	4	INS	SOMATIC	VALID
SJACT008_D	20	44982294	+	4	2	111674341	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	44986275	+	5	9	118547766	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	45230081	+	2	9	114130248	+	2	CTX	SOMATIC	VALID
SJACT008_D	20	45269777	+	4	9	118547125	+	0	CTX	SOMATIC	VALID
SJACT008_D	20	46028478	+	1	20	45998124	+	5	INS	SOMATIC	VALID
SJACT008_D	20	46201852	+	3	20	46202667	+	3	DEL	SOMATIC	VALID

SJACT008_D	20	46202835	-	9	20	46201596	+	7	ITX	SOMATIC	VALID
SJACT008_D	20	46203066	+	2	9	113663076	-	3	CTX	SOMATIC	VALID
SJACT008_D	20	46314730	+	1	20	61727008	+	3	DEL	SOMATIC	VALID
SJACT008_D	20	46336543	+	15	19	58899054	+	21	CTX	SOMATIC	VALID
SJACT008_D	20	46931875	-	4	19	58911879	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	46932694	+	10	1	121485347	-	0	CTX	SOMATIC	VALID
SJACT008_D	20	46937334	-	6	20	46340178	+	6	ITX	SOMATIC	VALID
SJACT008_D	20	46951790	+	3	19	58908317	+	0	CTX	SOMATIC	VALID
SJACT008_D	20	47516031	+	11	20	47743716	+	7	DEL	SOMATIC	VALID
SJACT008_D	20	47891612	+	10	19	58896526	+	10	CTX	SOMATIC	VALID
SJACT008_D	20	47891708	-	9	20	46933066	+	6	ITX	SOMATIC	VALID
SJACT008_D	20	48404867	+	7	20	48395568	+	6	INS	SOMATIC	VALID
SJACT008_D	20	48877389	-	9	20	43597523	+	6	ITX	SOMATIC	VALID
SJACT008_D	20	48877926	+	3	20	43631886	+	9	INS	SOMATIC	VALID
SJACT008_D	20	51356120	+	9	9	122405746	-	8	CTX	SOMATIC	VALID
SJACT008_D	20	51684231	+	5	20	53383554	+	12	DEL	SOMATIC	VALID
SJACT008_D	20	51704959	+	8	20	51779152	-	2	ITX	SOMATIC	VALID
SJACT008_D	20	51779123	+	3	20	53451993	+	12	DEL	SOMATIC	VALID
SJACT008_D	20	51813243	+	6	2	114281143	+	14	CTX	SOMATIC	VALID
SJACT008_D	20	52675930	+	4	9	114319730	+	15	CTX	SOMATIC	VALID
SJACT008_D	20	52682864	+	5	15	57240089	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	52773994	+	6	19	58745601	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	52774172	-	20	20	47890752	+	9	ITX	SOMATIC	VALID
SJACT008_D	20	54050134	+	6	19	41657675	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	54186421	+	3	20	54184385	+	5	INS	SOMATIC	VALID
SJACT008_D	20	54258918	-	4	18	14181571	+	11	CTX	SOMATIC	VALID
SJACT008_D	20	54312048	-	12	20	52259589	+	10	ITX	SOMATIC	VALID
SJACT008_D	20	54324486	+	3	20	46206831	+	4	INS	SOMATIC	VALID
SJACT008_D	20	54760387	+	7	20	54789770	+	9	DEL	SOMATIC	VALID
SJACT008_D	20	54763218	+	6	20	60674311	+	4	DEL	SOMATIC	VALID
SJACT008_D	20	54766119	+	15	20	54795529	-	13	ITX	SOMATIC	VALID
SJACT008_D	20	54814799	+	18	19	33326473	+	7	CTX	SOMATIC	VALID
SJACT008_D	20	54820086	-	2	14	104360790	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	54832272	+	12	19	33577564	+	11	CTX	SOMATIC	VALID
SJACT008_D	20	54876740	+	14	20	60696174	+	1	DEL	SOMATIC	VALID
SJACT008_D	20	54887951	+	12	20	54761636	+	17	INS	SOMATIC	VALID
SJACT008_D	20	54908838	+	7	GL000219.1	174904	-	0	CTX	SOMATIC	VALID
SJACT008_D	20	54909007	-	12	15	60274927	+	5	CTX	SOMATIC	VALID
SJACT008_D	20	54914791	-	15	20	54865838	+	11	ITX	SOMATIC	VALID
SJACT008_D	20	54916908	+	2	14	104291948	+	11	CTX	SOMATIC	VALID
SJACT008_D	20	54922840	-	5	20	54805445	+	3	ITX	SOMATIC	VALID

SJACT008_D	20	54929846	+	9	20	55886636	-	16	ITX	SOMATIC	VALID
SJACT008_D	20	54931007	-	9	19	33596075	+	6	CTX	SOMATIC	VALID
SJACT008_D	20	55579770	+	8	20	41900214	+	15	INS	SOMATIC	VALID
SJACT008_D	20	55845502	+	11	20	55894012	-	8	ITX	SOMATIC	VALID
SJACT008_D	20	55861812	+	6	20	60703681	+	5	DEL	SOMATIC	VALID
SJACT008_D	20	55866232	-	2	19	33641798	+	12	CTX	SOMATIC	VALID
SJACT008_D	20	55889177	-	11	20	54894534	+	7	ITX	SOMATIC	VALID
SJACT008_D	20	55902321	-	8	20	54879692	+	11	ITX	SOMATIC	VALID
SJACT008_D	20	55902535	+	0	19	33602800	+	7	CTX	SOMATIC	VALID
SJACT008_D	20	55903353	+	10	20	54899228	+	9	INS	SOMATIC	VALID
SJACT008_D	20	55911213	+	9	19	33556395	-	0	CTX	SOMATIC	VALID
SJACT008_D	20	55931464	-	8	19	33561996	+	2	CTX	SOMATIC	VALID
SJACT008_D	20	55952297	+	8	20	54759100	+	17	INS	SOMATIC	VALID
SJACT008_D	20	59165509	+	13	20	59331289	+	14	DEL	SOMATIC	VALID
SJACT008_D	20	59366137	+	14	20	59367468	+	11	DEL	SOMATIC	VALID
SJACT008_D	20	60656905	-	10	19	33553452	+	4	CTX	SOMATIC	VALID
SJACT008_D	20	60666286	-	11	19	33350450	+	3	CTX	SOMATIC	VALID
SJACT008_D	20	60669396	+	3	14	104352913	+	8	CTX	SOMATIC	VALID
SJACT008_D	20	60680568	+	2	20	54764651	+	20	INS	SOMATIC	VALID
SJACT008_D	20	60813127	+	15	20	60782127	+	9	INS	SOMATIC	VALID
SJACT008_D	20	61001810	+	8	9	130173112	-	10	CTX	SOMATIC	VALID
SJACT008_D	20	61727960	-	1	20	38211010	+	4	ITX	SOMATIC	VALID
SJACT008_D	20	62177440	+	9	20	62180847	-	12	ITX	SOMATIC	VALID
SJACT008_D	20	62404986	+	8	20	62375293	+	14	INS	SOMATIC	VALID
SJACT008_D	21	45064535	+	5	2	236104288	+	4	CTX	SOMATIC	VALID
SJACT008_D	21	46796955	+	6	21	46782543	+	5	INS	SOMATIC	VALID
SJACT008_D	22	24942564	+	10	6	18983027	+	11	CTX	SOMATIC	VALID
SJACT008_D	22	29358883	+	4	22	28800696	+	6	INS	SOMATIC	VALID
SJACT008_D	22	37993140	+	2	22	37978723	+	6	INS	SOMATIC	VALID
SJACT008_D	22	38059342	+	3	14	21561422	+	6	CTX	SOMATIC	VALID
SJACT008_D	22	41704764	+	9	22	41664926	+	7	INS	SOMATIC	VALID
SJACT008_D	22	43616166	+	7	22	43615998	+	7	INS	SOMATIC	VALID
SJACT008_D	22	43663529	+	7	22	43616370	+	5	INS	SOMATIC	VALID
SJACT008_D	3	37733639	+	6	1	109805146	+	4	CTX	SOMATIC	VALID
SJACT008_D	3	127051970	+	5	15	69763932	+	5	CTX	SOMATIC	VALID
SJACT008_D	3	127083332	+	6	2	42205001	+	10	CTX	SOMATIC	VALID
SJACT008_D	3	149550096	+	6	15	69763380	+	7	CTX	SOMATIC	VALID
SJACT008_D	6	18983225	+	4	22	24932113	+	13	CTX	SOMATIC	VALID
SJACT008_D	6	146554383	-	4	20	35688616	+	4	CTX	SOMATIC	VALID
SJACT008_D	7	65772903	-	0	14	87418739	+	6	CTX	SOMATIC	VALID
SJACT008_D	7	73141557	-	3	14	97837747	+	10	CTX	SOMATIC	VALID

SJACT008_D	7	73692609	-	3	11	102336285	+	3	CTX	SOMATIC	VALID
SJACT008_D	7	75090282	-	6	14	96504272	+	10	CTX	SOMATIC	VALID
SJACT008_D	7	144865625	+	7	19	55813796	+	2	CTX	SOMATIC	VALID
SJACT008_D	9	10767	-	1	21	43202695	+	6	CTX	SOMATIC	VALID
SJACT008_D	9	35666195	-	5	19	58134327	+	2	CTX	SOMATIC	VALID
SJACT008_D	9	38680856	-	4	14	99115107	+	7	CTX	SOMATIC	VALID
SJACT008_D	9	104236902	-	6	19	50968035	+	7	CTX	SOMATIC	VALID
SJACT008_D	9	109620103	-	5	15	53469890	+	10	CTX	SOMATIC	VALID
SJACT008_D	9	112035590	+	5	14	20390962	+	6	CTX	SOMATIC	VALID
SJACT008_D	9	112637586	-	7	20	49210144	+	9	CTX	SOMATIC	VALID
SJACT008_D	9	112716632	+	7	15	68916371	+	2	CTX	SOMATIC	VALID
SJACT008_D	9	112840906	-	5	20	41419115	+	3	CTX	SOMATIC	VALID
SJACT008_D	9	113822849	-	7	15	30046157	+	6	CTX	SOMATIC	VALID
SJACT008_D	9	114130220	+	10	20	45228897	+	3	CTX	SOMATIC	VALID
SJACT008_D	9	114130220	+	10	20	45228978	+	2	CTX	SOMATIC	VALID
SJACT008_D	9	114156620	+	1	19	58198731	+	5	CTX	SOMATIC	VALID
SJACT008_D	9	114451030	+	5	15	53238690	+	10	CTX	SOMATIC	VALID
SJACT008_D	9	115335704	-	1	19	52004687	+	3	CTX	SOMATIC	VALID
SJACT008_D	9	118710867	-	4	15	53462472	+	14	CTX	SOMATIC	VALID
SJACT008_D	9	119006682	+	1	14	23704494	+	7	CTX	SOMATIC	VALID
SJACT008_D	9	121857246	+	0	15	53456016	+	8	CTX	SOMATIC	VALID
SJACT008_D	9	121879582	+	5	15	52957174	+	10	CTX	SOMATIC	VALID
SJACT008_D	9	122400078	+	7	20	51355513	+	8	CTX	SOMATIC	VALID
SJACT008_D	9	122405078	-	1	20	52677960	+	4	CTX	SOMATIC	VALID
SJACT008_D	9	129899729	-	47	1	9925065	+	37	CTX	SOMATIC	VALID
SJACT008_D	9	130106893	+	3	18	12566166	+	8	CTX	SOMATIC	VALID
SJACT008_D	X	9948892	-	1	11	64804528	+	2	CTX	SOMATIC	VALID
SJACT008_D	X	16709770	-	9	1	161243452	+	5	CTX	SOMATIC	VALID
SJACT008_D	X	47220056	+	1	1	109525275	+	7	CTX	SOMATIC	VALID
SJACT008_D	X	152046750	-	2	14	21429503	+	3	CTX	SOMATIC	VALID
SJACT008_D	X	155259256	+	5	21	43202695	+	6	CTX	SOMATIC	VALID
SJACT060_D	1	12099475	+	2	1	12097277	+	3	INS	SOMATIC	VALID
SJACT060_D	1	21618942	+	5	19	48531928	+	6	CTX	SOMATIC	VALID
SJACT060_D	1	23969843	+	2	1	23970043	+	6	DEL	SOMATIC	VALID
SJACT060_D	1	51593281	+	2	12	69733801	+	6	CTX	SOMATIC	VALID
SJACT060_D	1	65892003	+	6	1	65570362	+	6	INS	SOMATIC	VALID
SJACT060_D	1	83210892	+	9	X	155228980	-	8	CTX	SOMATIC	VALID
SJACT060_D	1	91868821	+	2	20	37008116	+	2	CTX	SOMATIC	VALID
SJACT060_D	1	92172594	+	4	1	91866229	+	6	INS	SOMATIC	VALID
SJACT060_D	1	202016148	-	7	1	201786688	+	4	ITX	SOMATIC	VALID
SJACT060_D	10	14942239	+	7	10	14642174	+	6	INS	SOMATIC	VALID

SJACT060_D	10	57588966	+	1	10	57541995	+	3	INS	SOMATIC	VALID
SJACT060_D	10	74592573	+	6	17	40929199	-	2	CTX	SOMATIC	VALID
SJACT060_D	10	90428682	+	12	15	45488049	-	3	CTX	SOMATIC	VALID
SJACT060_D	10	90429183	+	3	1	12123166	-	1	CTX	SOMATIC	VALID
SJACT060_D	10	90765788	+	8	10	90418297	+	8	INS	SOMATIC	VALID
SJACT060_D	11	73131899	+	5	19	17979281	-	5	CTX	SOMATIC	VALID
SJACT060_D	11	123231988	+	7	11	122908083	+	3	INS	SOMATIC	VALID
SJACT060_D	12	69360709	+	9	12	69051919	+	4	INS	SOMATIC	VALID
SJACT060_D	12	69700229	-	3	11	72856160	+	8	CTX	SOMATIC	VALID
SJACT060_D	12	69734220	+	13	20	47694935	+	3	CTX	SOMATIC	VALID
SJACT060_D	12	69734453	+	1	1	12123013	+	3	CTX	SOMATIC	VALID
SJACT060_D	13	36230323	+	11	13	36242455	-	9	ITX	SOMATIC	VALID
SJACT060_D	14	40083152	+	9	14	40135733	+	3	DEL	SOMATIC	VALID
SJACT060_D	15	45254432	+	5	15	78829258	-	6	ITX	SOMATIC	VALID
SJACT060_D	15	45487387	-	7	10	90427947	+	5	CTX	SOMATIC	VALID
SJACT060_D	15	78828766	-	7	10	90428989	+	2	CTX	SOMATIC	VALID
SJACT060_D	15	78829049	+	2	1	12134680	-	4	CTX	SOMATIC	VALID
SJACT060_D	15	79195251	+	4	12	69732945	+	5	CTX	SOMATIC	VALID
SJACT060_D	15	91531860	+	4	15	91225865	+	4	INS	SOMATIC	VALID
SJACT060_D	16	56760025	+	2	16	56747476	+	1	INS	SOMATIC	VALID
SJACT060_D	16	56771573	+	2	16	56443006	+	3	INS	SOMATIC	VALID
SJACT060_D	17	8110350	+	2	17	8097489	+	4	INS	SOMATIC	VALID
SJACT060_D	17	25915657	+	5	17	25626167	+	3	INS	SOMATIC	VALID
SJACT060_D	17	40928913	-	4	10	99385406	+	2	CTX	SOMATIC	VALID
SJACT060_D	17	40942734	-	2	12	69732801	+	5	CTX	SOMATIC	VALID
SJACT060_D	17	76728801	+	6	17	76167842	+	2	INS	SOMATIC	VALID
SJACT060_D	19	2136146	-	8	10	74592154	+	6	CTX	SOMATIC	VALID
SJACT060_D	19	14947119	-	2	19	17713019	+	4	ITX	SOMATIC	VALID
SJACT060_D	19	17410318	+	3	11	62659273	-	3	CTX	SOMATIC	VALID
SJACT060_D	19	17767331	+	7	19	12837256	+	3	INS	SOMATIC	VALID
SJACT060_D	19	17901364	-	7	19	17899812	+	2	ITX	SOMATIC	VALID
SJACT060_D	19	48956224	+	4	1	31400758	-	6	CTX	SOMATIC	VALID
SJACT060_D	2	27470026	+	3	2	27166729	+	7	INS	SOMATIC	VALID
SJACT060_D	2	44887620	+	2	2	44890507	+	2	DEL	SOMATIC	VALID
SJACT060_D	2	46827725	-	6	17	40396607	+	4	CTX	SOMATIC	VALID
SJACT060_D	2	46837259	+	6	2	46563651	+	6	INS	SOMATIC	VALID
SJACT060_D	2	117604708	+	5	2	117605172	+	7	DEL	SOMATIC	VALID
SJACT060_D	2	122451004	+	4	2	122441618	+	3	INS	SOMATIC	VALID
SJACT060_D	2	193730826	+	6	2	193734454	+	4	DEL	SOMATIC	VALID
SJACT060_D	2	193746212	+	6	2	193789301	+	3	DEL	SOMATIC	VALID
SJACT060_D	20	11794914	+	10	20	11597120	+	3	INS	SOMATIC	VALID

SJACT060_D	20	34606167	+	7	20	34600760	+	8	INS	SOMATIC	VALID
SJACT060_D	20	34878907	+	3	20	34562709	+	4	INS	SOMATIC	VALID
SJACT060_D	20	37013815	+	3	20	36671323	+	7	INS	SOMATIC	VALID
SJACT060_D	20	47695444	+	15	20	47340593	+	2	INS	SOMATIC	VALID
SJACT060_D	20	47939325	+	1	15	45253990	+	3	CTX	SOMATIC	VALID
SJACT060_D	20	47939331	+	5	15	45253990	+	3	CTX	SOMATIC	VALID
SJACT060_D	20	49147171	+	4	20	48907431	+	2	INS	SOMATIC	VALID
SJACT060_D	21	45569789	-	2	1	91868474	+	5	CTX	SOMATIC	VALID
SJACT060_D	21	45577973	+	2	21	45265697	+	5	INS	SOMATIC	VALID
SJACT060_D	22	24578994	-	5	17	62574794	+	4	CTX	SOMATIC	VALID
SJACT060_D	3	44394895	-	5	12	50324790	+	8	CTX	SOMATIC	VALID
SJACT060_D	3	116607342	+	5	3	116679813	+	7	DEL	SOMATIC	VALID
SJACT060_D	3	123875074	+	6	3	123620576	+	3	INS	SOMATIC	VALID
SJACT060_D	3	150883890	+	5	3	150559711	+	6	INS	SOMATIC	VALID
SJACT060_D	4	182457411	+	2	4	182514790	+	2	DEL	SOMATIC	VALID
SJACT060_D	5	52244725	+	3	5	51878777	+	4	INS	SOMATIC	VALID
SJACT060_D	5	138104133	+	2	5	137787070	+	5	INS	SOMATIC	VALID
SJACT060_D	5	148961817	+	4	5	148695409	+	5	INS	SOMATIC	VALID
SJACT060_D	6	36981899	+	5	6	36631135	+	1	INS	SOMATIC	VALID
SJACT060_D	7	45083678	+	4	7	44750896	+	8	INS	SOMATIC	VALID
SJACT060_D	8	15638362	+	7	8	15637072	+	7	INS	SOMATIC	VALID
SJACT060_D	8	18719979	+	6	8	18719152	+	6	INS	SOMATIC	VALID
SJACT060_D	8	24657332	+	4	8	43660973	-	6	ITX	SOMATIC	VALID
SJACT060_D	8	43650020	-	4	2	218748286	+	4	CTX	SOMATIC	VALID
SJACT060_D	8	43659139	+	8	8	24657170	+	1	INS	SOMATIC	VALID
SJACT060_D	9	20788526	+	5	9	20459031	+	11	INS	SOMATIC	VALID
SJACT060_D	9	71862626	+	2	9	71564626	+	4	INS	SOMATIC	VALID
SJACT060_D	9	114471300	+	6	9	114409978	+	5	INS	SOMATIC	VALID
SJACT060_D	X	41243849	+	5	X	41002876	+	6	INS	SOMATIC	VALID
SJACT061_D	1	15780716	+	3	1	15765987	+	1	INS	SOMATIC	VALID
SJACT061_D	1	22689413	+	1	19	14679498	+	3	CTX	SOMATIC	VALID
SJACT061_D	1	212958094	+	3	12	12205709	-	1	CTX	SOMATIC	VALID
SJACT061_D	10	102200432	+	4	15	58207525	+	5	CTX	SOMATIC	VALID
SJACT061_D	11	20034623	+	11	11	20022604	+	4	INS	SOMATIC	VALID
SJACT061_D	11	72894217	+	5	11	72885509	+	8	INS	SOMATIC	VALID
SJACT061_D	12	12205702	-	4	12	11983176	+	6	ITX	SOMATIC	VALID
SJACT061_D	12	84962985	+	7	12	84973578	+	6	DEL	SOMATIC	VALID
SJACT061_D	12	122153140	+	4	12	122135506	+	2	INS	SOMATIC	VALID
SJACT061_D	14	49646270	+	4	14	49626885	+	5	INS	SOMATIC	VALID
SJACT061_D	16	30928012	+	2	16	30908027	+	5	INS	SOMATIC	VALID
SJACT061_D	16	89894138	+	1	16	89883860	+	3	INS	SOMATIC	VALID

SJACT061_D	19	14689261	+	5	3	195926899	+	3	CTX	SOMATIC	VALID
SJACT061_D	2	26149989	+	4	2	26139477	+	3	INS	SOMATIC	VALID
SJACT061_D	2	42084502	+	2	2	42059645	+	3	INS	SOMATIC	VALID
SJACT061_D	20	48425285	+	8	20	48407986	+	4	INS	SOMATIC	VALID
SJACT061_D	22	30291550	+	10	22	30270886	+	3	INS	SOMATIC	VALID
SJACT061_D	22	42479859	+	3	22	42463195	+	1	INS	SOMATIC	VALID
SJACT061_D	3	107599099	+	6	3	107573861	+	7	INS	SOMATIC	VALID
SJACT061_D	3	111220564	-	3	3	111183245	+	9	ITX	SOMATIC	VALID
SJACT061_D	3	195943521	+	2	1	22667870	+	1	CTX	SOMATIC	VALID
SJACT061_D	4	36715741	+	0	4	36715864	+	5	DEL	SOMATIC	VALID
SJACT061_D	4	177562219	+	2	4	177557798	+	5	INS	SOMATIC	VALID
SJACT061_D	5	90181615	+	3	5	90157429	+	2	INS	SOMATIC	VALID
SJACT061_D	5	147649607	+	6	5	147642800	+	2	INS	SOMATIC	VALID
SJACT061_D	6	42046034	-	6	6	41830301	+	8	ITX	SOMATIC	VALID
SJACT061_D	6	52706796	+	6	6	52697485	+	5	INS	SOMATIC	VALID
SJACT061_D	6	104634522	+	1	6	104634568	+	2	DEL	SOMATIC	VALID
SJACT061_D	6	121708766	+	1	6	121706165	+	5	INS	SOMATIC	VALID
SJACT061_D	6	159561991	+	4	6	159550553	+	2	INS	SOMATIC	VALID
SJACT061_D	7	44828694	+	9	7	44813873	+	8	INS	SOMATIC	VALID
SJACT061_D	7	150069275	+	4	7	150052548	+	3	INS	SOMATIC	VALID
SJACT061_D	X	24158762	+	2	X	24138452	+	6	INS	SOMATIC	VALID
SJACT062_D	1	23871132	+	9	20	31978880	+	6	CTX	SOMATIC	VALID
SJACT062_D	1	24493520	-	3	1	23870719	+	4	ITX	SOMATIC	VALID
SJACT062_D	1	24498848	+	16	3	53383253	-	13	CTX	SOMATIC	VALID
SJACT062_D	1	26150539	+	17	1	26054446	+	13	INS	SOMATIC	VALID
SJACT062_D	1	26232196	+	1	1	25625408	+	3	INS	SOMATIC	VALID
SJACT062_D	1	28209154	+	0	3	53143296	+	10	CTX	SOMATIC	VALID
SJACT062_D	1	36808072	+	5	1	36750092	+	3	INS	SOMATIC	VALID
SJACT062_D	1	40636294	+	4	11	75977834	+	4	CTX	SOMATIC	VALID
SJACT062_D	1	79792145	+	6	1	79826935	+	4	DEL	SOMATIC	VALID
SJACT062_D	1	92323608	+	6	17	48392428	-	4	CTX	SOMATIC	VALID
SJACT062_D	1	92323632	+	4	13	43723745	-	11	CTX	SOMATIC	VALID
SJACT062_D	1	189115378	+	1	1	190836234	+	2	DEL	SOMATIC	VALID
SJACT062_D	1	235930260	+	9	1	235819840	+	4	INS	SOMATIC	VALID
SJACT062_D	10	83964139	+	2	10	84363079	+	1	DEL	SOMATIC	VALID
SJACT062_D	10	88459268	+	2	8	145744814	-	5	CTX	SOMATIC	VALID
SJACT062_D	10	88621530	-	1	X	4772111	+	2	CTX	SOMATIC	VALID
SJACT062_D	10	88621714	+	3	10	88458999	+	1	INS	SOMATIC	VALID
SJACT062_D	10	88621741	+	4	10	103647642	+	7	DEL	SOMATIC	VALID
SJACT062_D	10	104415756	+	4	10	104308784	+	4	INS	SOMATIC	VALID
SJACT062_D	10	104995838	-	0	X	150224520	+	7	CTX	SOMATIC	VALID

SJACT062_D	10	104998236	+	3	10	88456127	+	6	INS	SOMATIC	VALID
SJACT062_D	10	134285117	+	9	10	134220942	+	6	INS	SOMATIC	VALID
SJACT062_D	11	1941690	+	9	11	1841391	+	8	INS	SOMATIC	VALID
SJACT062_D	11	34187791	+	3	11	34190273	+	5	DEL	SOMATIC	VALID
SJACT062_D	11	60043992	+	14	15	60168250	-	5	CTX	SOMATIC	VALID
SJACT062_D	11	62490582	+	2	11	62647032	+	3	DEL	SOMATIC	VALID
SJACT062_D	11	64422216	+	2	11	64141889	+	1	INS	SOMATIC	VALID
SJACT062_D	11	64662702	+	2	19	4668167	+	17	CTX	SOMATIC	VALID
SJACT062_D	11	66949614	+	8	20	31979725	+	8	CTX	SOMATIC	VALID
SJACT062_D	11	93110301	+	2	11	93240003	+	2	DEL	SOMATIC	VALID
SJACT062_D	11	126210290	+	6	11	126143281	+	3	INS	SOMATIC	VALID
SJACT062_D	12	27124328	+	10	12	26959524	+	8	INS	SOMATIC	VALID
SJACT062_D	12	48501909	+	5	12	48374756	+	9	INS	SOMATIC	VALID
SJACT062_D	12	53229999	+	13	14	21680308	+	2	CTX	SOMATIC	VALID
SJACT062_D	12	53991107	+	4	3	52471531	+	5	CTX	SOMATIC	VALID
SJACT062_D	12	58393496	+	4	12	58077866	+	7	INS	SOMATIC	VALID
SJACT062_D	12	94322359	+	17	12	93773388	+	10	INS	SOMATIC	VALID
SJACT062_D	12	102541022	+	3	12	102756156	-	1	ITX	SOMATIC	VALID
SJACT062_D	12	110466110	+	4	13	43723932	-	8	CTX	SOMATIC	VALID
SJACT062_D	12	123468547	+	10	X	150224713	-	8	CTX	SOMATIC	VALID
SJACT062_D	13	48822346	-	3	13	48526828	+	3	ITX	SOMATIC	VALID
SJACT062_D	13	93228605	-	7	13	93218667	+	9	ITX	SOMATIC	VALID
SJACT062_D	13	93883104	+	4	15	60167672	+	7	CTX	SOMATIC	VALID
SJACT062_D	13	94156031	+	6	13	94328494	+	6	DEL	SOMATIC	VALID
SJACT062_D	13	96783869	+	5	8	19051835	-	8	CTX	SOMATIC	VALID
SJACT062_D	13	98801029	+	6	13	98978227	+	3	DEL	SOMATIC	VALID
SJACT062_D	13	113833313	+	12	13	113798510	+	7	INS	SOMATIC	VALID
SJACT062_D	14	21665653	+	7	X	152215152	+	9	CTX	SOMATIC	VALID
SJACT062_D	14	21680444	+	1	1	23870036	+	17	CTX	SOMATIC	VALID
SJACT062_D	14	21684851	+	7	14	21262532	+	12	INS	SOMATIC	VALID
SJACT062_D	14	23115726	+	5	14	23110266	+	5	INS	SOMATIC	VALID
SJACT062_D	14	27659980	+	6	14	27658711	+	11	INS	SOMATIC	VALID
SJACT062_D	14	27661608	+	8	14	27658753	+	9	INS	SOMATIC	VALID
SJACT062_D	14	28762869	+	1	14	27659119	+	9	INS	SOMATIC	VALID
SJACT062_D	14	30218498	+	6	14	30261343	+	8	DEL	SOMATIC	VALID
SJACT062_D	14	62455238	+	9	14	62463505	+	8	DEL	SOMATIC	VALID
SJACT062_D	14	69995712	+	1	14	68334826	+	7	INS	SOMATIC	VALID
SJACT062_D	14	94446269	+	8	14	94377688	+	8	INS	SOMATIC	VALID
SJACT062_D	14	101183175	+	3	14	101075505	+	6	INS	SOMATIC	VALID
SJACT062_D	15	61016440	+	10	15	60166561	+	8	INS	SOMATIC	VALID
SJACT062_D	15	75143273	+	8	X	109768612	-	9	CTX	SOMATIC	VALID

SJACT062_D	15	77303182	+	4	17	27195013	-	7	CTX	SOMATIC	VALID
SJACT062_D	16	56793246	+	2	19	4669744	+	1	CTX	SOMATIC	VALID
SJACT062_D	17	11802811	-	8	17	11792101	+	7	ITX	SOMATIC	VALID
SJACT062_D	17	41953934	+	4	4	3520132	-	0	CTX	SOMATIC	VALID
SJACT062_D	17	42435348	+	3	17	41951466	+	9	INS	SOMATIC	VALID
SJACT062_D	17	44276297	+	2	17	45188613	+	1	DEL	SOMATIC	VALID
SJACT062_D	17	48391584	-	1	20	31979569	+	12	CTX	SOMATIC	VALID
SJACT062_D	17	49113918	+	1	17	49114258	+	4	DEL	SOMATIC	VALID
SJACT062_D	17	72781761	+	4	17	73774426	+	6	DEL	SOMATIC	VALID
SJACT062_D	17	74065322	+	11	17	72742007	+	6	INS	SOMATIC	VALID
SJACT062_D	17	74401917	+	12	17	74361976	+	1	INS	SOMATIC	VALID
SJACT062_D	18	3487370	+	7	18	3401290	+	3	INS	SOMATIC	VALID
SJACT062_D	18	22996188	+	2	8	124712657	+	5	CTX	SOMATIC	VALID
SJACT062_D	19	4817100	+	5	11	64539802	+	1	CTX	SOMATIC	VALID
SJACT062_D	19	36064840	+	6	9	101133028	+	5	CTX	SOMATIC	VALID
SJACT062_D	19	39948290	+	7	17	16381663	+	14	CTX	SOMATIC	VALID
SJACT062_D	19	57723654	+	3	19	57459879	+	5	INS	SOMATIC	VALID
SJACT062_D	2	61259050	+	8	2	61184217	+	5	INS	SOMATIC	VALID
SJACT062_D	2	97526332	+	4	2	96995805	+	4	INS	SOMATIC	VALID
SJACT062_D	2	102647763	+	10	2	102656290	+	6	DEL	SOMATIC	VALID
SJACT062_D	2	230761083	+	3	2	230902263	+	4	DEL	SOMATIC	VALID
SJACT062_D	20	31979569	-	12	17	48391581	+	16	CTX	SOMATIC	VALID
SJACT062_D	20	31979881	+	3	1	23870743	+	5	CTX	SOMATIC	VALID
SJACT062_D	20	31980145	+	9	1	24494149	+	2	CTX	SOMATIC	VALID
SJACT062_D	20	31980150	+	19	1	92323146	+	11	CTX	SOMATIC	VALID
SJACT062_D	20	31980150	+	19	1	92323148	+	1	CTX	SOMATIC	VALID
SJACT062_D	20	32640933	+	3	20	31979845	+	5	INS	SOMATIC	VALID
SJACT062_D	21	33581192	+	3	21	33623899	+	2	DEL	SOMATIC	VALID
SJACT062_D	22	43475666	-	5	16	56661854	+	4	CTX	SOMATIC	VALID
SJACT062_D	3	4243483	+	12	3	4477126	+	3	DEL	SOMATIC	VALID
SJACT062_D	3	21288802	-	2	3	21283210	+	2	ITX	SOMATIC	VALID
SJACT062_D	3	52082742	+	1	3	52043718	+	4	INS	SOMATIC	VALID
SJACT062_D	3	115546751	+	7	3	115749176	+	5	DEL	SOMATIC	VALID
SJACT062_D	3	115799897	+	8	3	116112691	+	6	DEL	SOMATIC	VALID
SJACT062_D	3	116291181	+	12	3	116322484	+	5	DEL	SOMATIC	VALID
SJACT062_D	3	116500673	+	10	3	116854314	+	4	DEL	SOMATIC	VALID
SJACT062_D	3	116617288	+	12	3	116664945	+	4	DEL	SOMATIC	VALID
SJACT062_D	3	119711219	+	3	3	119794401	+	3	DEL	SOMATIC	VALID
SJACT062_D	3	148097191	+	7	3	148412381	+	10	DEL	SOMATIC	VALID
SJACT062_D	3	149907639	+	4	3	150212940	+	9	DEL	SOMATIC	VALID
SJACT062_D	3	150799346	+	0	3	149341169	+	18	INS	SOMATIC	VALID

SJACT062_D	3	188715893	+	5	3	188632326	+	6	INS	SOMATIC	VALID
SJACT062_D	4	10828002	+	2	4	10844050	+	3	DEL	SOMATIC	VALID
SJACT062_D	4	40304931	+	1	4	40580241	+	6	DEL	SOMATIC	VALID
SJACT062_D	4	143140538	+	4	4	143470529	+	2	DEL	SOMATIC	VALID
SJACT062_D	4	181046496	+	7	4	181923424	+	5	DEL	SOMATIC	VALID
SJACT062_D	4	182142329	+	4	4	182386231	+	5	DEL	SOMATIC	VALID
SJACT062_D	4	182315036	+	3	4	182381495	+	6	DEL	SOMATIC	VALID
SJACT062_D	5	10396363	+	9	5	10405732	+	5	DEL	SOMATIC	VALID
SJACT062_D	5	35040477	+	7	5	34641888	+	8	INS	SOMATIC	VALID
SJACT062_D	5	92989822	+	6	5	92831442	+	9	INS	SOMATIC	VALID
SJACT062_D	5	138764987	+	6	5	137672688	+	6	INS	SOMATIC	VALID
SJACT062_D	5	149600241	+	1	5	148999585	+	10	INS	SOMATIC	VALID
SJACT062_D	6	34190513	+	6	6	34166004	+	4	INS	SOMATIC	VALID
SJACT062_D	6	66652410	+	12	6	135457815	-	5	ITX	SOMATIC	VALID
SJACT062_D	6	132665121	-	17	6	132660642	+	4	ITX	SOMATIC	VALID
SJACT062_D	6	135290583	+	3	6	153437758	+	2	DEL	SOMATIC	VALID
SJACT062_D	6	136825929	+	8	6	138116579	+	4	DEL	SOMATIC	VALID
SJACT062_D	6	142053972	+	10	6	142048251	+	3	INS	SOMATIC	VALID
SJACT062_D	6	144794533	+	12	6	147184117	+	20	DEL	SOMATIC	VALID
SJACT062_D	6	144809195	+	16	6	145563636	+	17	DEL	SOMATIC	VALID
SJACT062_D	6	145563267	+	17	6	147169718	-	15	ITX	SOMATIC	VALID
SJACT062_D	6	146468186	+	19	6	145550984	+	11	INS	SOMATIC	VALID
SJACT062_D	6	147167228	-	9	6	144515646	+	18	ITX	SOMATIC	VALID
SJACT062_D	6	153471855	+	8	6	161311961	+	8	DEL	SOMATIC	VALID
SJACT062_D	6	153722507	+	5	6	147597025	+	10	INS	SOMATIC	VALID
SJACT062_D	7	1493559	-	3	4	2101732	+	3	CTX	SOMATIC	VALID
SJACT062_D	7	23534231	+	6	7	23546072	+	7	DEL	SOMATIC	VALID
SJACT062_D	7	23546427	+	3	7	23543559	+	2	INS	SOMATIC	VALID
SJACT062_D	7	69080741	+	5	7	69425388	+	8	DEL	SOMATIC	VALID
SJACT062_D	7	69702665	+	3	7	70213758	+	5	DEL	SOMATIC	VALID
SJACT062_D	7	95225510	+	2	7	95102667	+	5	INS	SOMATIC	VALID
SJACT062_D	8	18290575	-	5	13	96783076	+	6	CTX	SOMATIC	VALID
SJACT062_D	8	18692857	+	6	8	18691999	+	10	INS	SOMATIC	VALID
SJACT062_D	8	18692882	+	7	8	18687742	+	8	INS	SOMATIC	VALID
SJACT062_D	8	19611436	+	7	8	144924371	+	5	DEL	SOMATIC	VALID
SJACT062_D	8	53226497	+	4	8	52568216	+	2	INS	SOMATIC	VALID
SJACT062_D	8	70231783	+	2	8	75272281	-	3	ITX	SOMATIC	VALID
SJACT062_D	8	78214553	-	3	8	70246406	+	6	ITX	SOMATIC	VALID
SJACT062_D	8	90647066	+	4	8	97013216	+	6	DEL	SOMATIC	VALID
SJACT062_D	8	116791445	+	3	8	140652547	+	2	DEL	SOMATIC	VALID
SJACT062_D	8	131092881	+	2	8	69865411	+	7	INS	SOMATIC	VALID

SJACT062_D	8	134864887	+	1	8	133973805	+	2	INS	SOMATIC	VALID
SJACT062_D	9	90190559	+	11	9	90228114	+	4	DEL	SOMATIC	VALID
SJACT062_D	9	112211508	+	5	9	112167135	+	2	INS	SOMATIC	VALID
SJACT062_D	9	115496785	+	10	9	115415157	+	11	INS	SOMATIC	VALID
SJACT062_D	9	123536074	+	2	9	123827244	+	2	DEL	SOMATIC	VALID
SJACT062_D	9	124025389	+	8	9	123987366	+	6	INS	SOMATIC	VALID
SJACT062_D	9	134238098	+	2	9	134228679	+	4	INS	SOMATIC	VALID
SJACT062_D	9	134670308	+	6	9	134696924	+	8	DEL	SOMATIC	VALID
SJACT062_D	X	76876186	+	2	X	76960785	+	5	DEL	SOMATIC	VALID
SJACT062_D	X	109617225	-	3	20	57359399	+	4	CTX	SOMATIC	VALID
SJACT062_D	X	149605747	-	6	12	122926352	+	6	CTX	SOMATIC	VALID
SJACT062_D	X	149608471	-	3	17	41953581	+	5	CTX	SOMATIC	VALID
SJACT062_D	X	149920582	-	7	14	21665299	+	5	CTX	SOMATIC	VALID
SJACT062_D	X	150233730	+	11	17	42434025	+	1	CTX	SOMATIC	VALID
SJACT062_D	X	152889569	+	0	13	43723340	+	6	CTX	SOMATIC	VALID
SJACT062_D	X	152896539	+	8	12	123048442	+	4	CTX	SOMATIC	VALID
SJACT063_D	1	49212815	+	7	1	53663083	+	6	DEL	SOMATIC	VALID
SJACT063_D	1	49221357	+	4	1	54310984	+	1	DEL	SOMATIC	VALID
SJACT063_D	1	50549972	+	9	1	54562962	-	5	ITX	SOMATIC	VALID
SJACT063_D	1	53288321	+	14	1	55238212	-	3	ITX	SOMATIC	VALID
SJACT063_D	1	53689470	+	5	1	55055909	+	3	DEL	SOMATIC	VALID
SJACT063_D	1	53703413	+	2	1	54635051	-	2	ITX	SOMATIC	VALID
SJACT063_D	1	53709208	+	2	1	49210120	+	14	INS	SOMATIC	VALID
SJACT063_D	1	54544230	+	10	1	54628001	-	4	ITX	SOMATIC	VALID
SJACT063_D	1	54555215	+	3	1	54870407	-	7	ITX	SOMATIC	VALID
SJACT063_D	1	54563627	+	2	1	54590391	+	12	DEL	SOMATIC	VALID
SJACT063_D	1	54589033	+	4	1	54867378	+	12	DEL	SOMATIC	VALID
SJACT063_D	1	54590364	+	7	1	55551550	-	4	ITX	SOMATIC	VALID
SJACT063_D	1	54633631	-	7	1	54544227	+	3	ITX	SOMATIC	VALID
SJACT063_D	1	54869550	+	5	1	54562999	+	3	INS	SOMATIC	VALID
SJACT063_D	1	55055331	-	6	1	50549634	+	5	ITX	SOMATIC	VALID
SJACT063_D	1	55055798	+	4	1	57382016	-	6	ITX	SOMATIC	VALID
SJACT063_D	1	55232913	+	7	1	55266677	+	6	DEL	SOMATIC	VALID
SJACT063_D	1	55232919	-	4	1	54589039	+	7	ITX	SOMATIC	VALID
SJACT063_D	1	55235734	+	5	1	54555229	+	3	INS	SOMATIC	VALID
SJACT063_D	1	55258350	-	4	1	54869990	+	4	ITX	SOMATIC	VALID
SJACT063_D	1	55535606	+	4	9	104176862	+	4	CTX	SOMATIC	VALID
SJACT063_D	1	55543608	-	2	1	55238240	+	5	ITX	SOMATIC	VALID
SJACT063_D	1	57380911	-	8	1	54563605	+	6	ITX	SOMATIC	VALID
SJACT063_D	1	57662593	+	3	1	49218265	+	5	INS	SOMATIC	VALID
SJACT063_D	1	74703628	+	8	1	55544254	+	6	INS	SOMATIC	VALID

SJACT063_D	1	74744020	-	5	1	57657374	+	3	ITX	SOMATIC	VALID
SJACT063_D	1	74747890	+	8	1	75657396	+	6	DEL	SOMATIC	VALID
SJACT063_D	1	74996325	+	4	1	74697691	+	13	INS	SOMATIC	VALID
SJACT063_D	1	75126113	-	4	1	55235745	+	5	ITX	SOMATIC	VALID
SJACT063_D	1	75126639	-	5	1	54626933	+	5	ITX	SOMATIC	VALID
SJACT063_D	1	75244123	-	5	1	50551849	+	3	ITX	SOMATIC	VALID
SJACT063_D	1	75244642	+	7	1	57662603	+	6	INS	SOMATIC	VALID
SJACT063_D	1	93861478	+	6	1	95900339	-	2	ITX	SOMATIC	VALID
SJACT063_D	1	95892247	-	2	1	93857686	+	3	ITX	SOMATIC	VALID
SJACT063_D	1	172343857	+	3	1	172337737	+	3	INS	SOMATIC	VALID
SJACT063_D	1	179361437	+	11	1	179274754	+	8	INS	SOMATIC	VALID
SJACT063_D	1	235868957	+	2	1	232797075	+	3	INS	SOMATIC	VALID
SJACT063_D	10	78388368	+	1	10	78354912	+	2	INS	SOMATIC	VALID
SJACT063_D	10	128953908	+	2	10	128953623	+	4	INS	SOMATIC	VALID
SJACT063_D	11	33298064	+	7	11	33291277	+	3	INS	SOMATIC	VALID
SJACT063_D	11	95580656	+	3	9	120634522	+	3	CTX	SOMATIC	VALID
SJACT063_D	12	1793741	-	3	14	53122802	+	2	CTX	SOMATIC	VALID
SJACT063_D	14	53088251	+	5	19	20937235	-	1	CTX	SOMATIC	VALID
SJACT063_D	14	91029225	+	3	14	91029394	+	6	DEL	SOMATIC	VALID
SJACT063_D	15	37900655	+	6	15	37892027	+	6	INS	SOMATIC	VALID
SJACT063_D	15	60485065	-	4	22	24370960	+	8	CTX	SOMATIC	VALID
SJACT063_D	15	60495658	+	10	15	65308483	-	3	ITX	SOMATIC	VALID
SJACT063_D	16	55622515	+	6	16	55621517	+	7	INS	SOMATIC	VALID
SJACT063_D	17	48427554	+	10	17	48427937	+	0	DEL	SOMATIC	VALID
SJACT063_D	19	13050664	+	3	19	13041516	+	7	INS	SOMATIC	VALID
SJACT063_D	19	17966257	+	1	19	17959447	+	2	INS	SOMATIC	VALID
SJACT063_D	2	20715118	+	2	2	20712297	+	2	INS	SOMATIC	VALID
SJACT063_D	2	37070477	+	5	2	37005510	+	3	INS	SOMATIC	VALID
SJACT063_D	2	108831573	+	8	2	108831759	+	1	DEL	SOMATIC	VALID
SJACT063_D	2	165792917	+	4	2	165753737	+	2	INS	SOMATIC	VALID
SJACT063_D	2	238942508	+	4	2	238942595	+	2	DEL	SOMATIC	VALID
SJACT063_D	22	24371224	+	2	15	65297981	+	5	CTX	SOMATIC	VALID
SJACT063_D	3	50466701	+	4	12	38723445	+	1	CTX	SOMATIC	VALID
SJACT063_D	3	60333936	+	5	3	60615085	+	4	DEL	SOMATIC	VALID
SJACT063_D	3	62369984	+	3	3	62370290	+	2	DEL	SOMATIC	VALID
SJACT063_D	3	126333212	+	4	3	126333349	+	2	DEL	SOMATIC	VALID
SJACT063_D	4	100731297	+	1	11	100522727	+	3	CTX	SOMATIC	VALID
SJACT063_D	4	182477628	+	1	4	183169032	+	5	DEL	SOMATIC	VALID
SJACT063_D	6	57566656	-	1	17	74601846	+	2	CTX	SOMATIC	VALID
SJACT063_D	6	57566660	-	6	17	74601846	+	2	CTX	SOMATIC	VALID
SJACT063_D	6	138999502	+	8	6	138996671	+	4	INS	SOMATIC	VALID

SJACT063_D	7	50698056	+	2	7	50824277	+	5	DEL	SOMATIC	VALID
SJACT063_D	7	144741042	+	3	7	144738946	+	4	INS	SOMATIC	VALID
SJACT063_D	X	43578816	-	1	14	83194727	+	2	CTX	SOMATIC	VALID
SJACT066_D	1	1020704	+	5	1	2786700	-	2	ITX	SOMATIC	VALID
SJACT066_D	1	176352207	+	2	1	176349896	+	2	INS	SOMATIC	VALID
SJACT066_D	1	209161723	-	1	9	33711818	+	2	CTX	SOMATIC	VALID
SJACT066_D	10	52854054	+	3	10	52975505	+	7	DEL	SOMATIC	VALID
SJACT066_D	10	124503010	+	5	10	124500031	+	5	INS	SOMATIC	VALID
SJACT066_D	11	118351321	+	1	11	118342515	+	5	INS	SOMATIC	VALID
SJACT066_D	12	9773640	+	3	7	22951958	+	3	CTX	SOMATIC	VALID
SJACT066_D	12	15345552	+	5	12	21351255	-	4	ITX	SOMATIC	VALID
SJACT066_D	12	21322841	-	4	12	13441233	+	2	ITX	SOMATIC	VALID
SJACT066_D	12	47090926	+	6	12	47087223	+	3	INS	SOMATIC	VALID
SJACT066_D	12	119862525	+	3	12	119859444	+	6	INS	SOMATIC	VALID
SJACT066_D	13	94477191	+	4	13	94947140	+	6	DEL	SOMATIC	VALID
SJACT066_D	16	2285666	+	1	8	56198269	+	3	CTX	SOMATIC	VALID
SJACT066_D	16	6551173	+	1	16	6809425	+	2	DEL	SOMATIC	VALID
SJACT066_D	16	6748792	+	3	16	7087583	+	4	DEL	SOMATIC	VALID
SJACT066_D	16	7087794	+	2	16	6683745	+	8	INS	SOMATIC	VALID
SJACT066_D	16	61964005	+	5	16	62021105	+	5	DEL	SOMATIC	VALID
SJACT066_D	18	2457359	+	1	X	72675276	+	7	CTX	SOMATIC	VALID
SJACT066_D	18	2457360	+	8	X	72675276	+	7	CTX	SOMATIC	VALID
SJACT066_D	18	4661870	+	2	X	72695133	+	1	CTX	SOMATIC	VALID
SJACT066_D	18	5247509	-	7	18	4661552	+	3	ITX	SOMATIC	VALID
SJACT066_D	18	30673149	+	5	18	30666425	+	6	INS	SOMATIC	VALID
SJACT066_D	19	11068206	+	2	12	109984400	-	1	CTX	SOMATIC	VALID
SJACT066_D	19	21903038	+	0	19	21905560	+	8	DEL	SOMATIC	VALID
SJACT066_D	2	207423439	+	1	2	207415470	+	4	INS	SOMATIC	VALID
SJACT066_D	20	18196435	+	6	7	7455830	-	2	CTX	SOMATIC	VALID
SJACT066_D	20	50862983	+	2	20	50859297	+	2	INS	SOMATIC	VALID
SJACT066_D	3	88416079	+	6	3	116564142	+	2	DEL	SOMATIC	VALID
SJACT066_D	3	88933247	+	3	7	86523421	+	4	CTX	SOMATIC	VALID
SJACT066_D	3	89300372	-	3	3	88415749	+	5	ITX	SOMATIC	VALID
SJACT066_D	3	123610401	+	3	3	123602759	+	2	INS	SOMATIC	VALID
SJACT066_D	4	49091	+	20	4	48918	+	9	INS	SOMATIC	VALID
SJACT066_D	4	29502639	+	7	4	29495345	+	2	INS	SOMATIC	VALID
SJACT066_D	4	60525083	+	2	4	60524979	+	3	INS	SOMATIC	VALID
SJACT066_D	4	60542960	+	2	4	68389401	-	4	ITX	SOMATIC	VALID
SJACT066_D	4	66299174	+	3	12	32379459	+	1	CTX	SOMATIC	VALID
SJACT066_D	5	173048581	+	1	5	173045193	+	3	INS	SOMATIC	VALID
SJACT066_D	7	1664703	-	4	12	95055173	+	2	CTX	SOMATIC	VALID

SJACT066_D	7	21060823	+	2	7	25330093	-	3	ITX	SOMATIC	VALID
SJACT066_D	7	21074910	-	5	7	22873926	+	2	ITX	SOMATIC	VALID
SJACT066_D	7	22952433	+	4	7	23242680	+	5	DEL	SOMATIC	VALID
SJACT066_D	7	24739920	+	2	7	23297103	+	1	INS	SOMATIC	VALID
SJACT066_D	7	25321014	-	5	7	21085294	+	2	ITX	SOMATIC	VALID
SJACT066_D	7	25321467	+	2	7	25318441	+	1	INS	SOMATIC	VALID
SJACT066_D	7	51055261	-	6	4	104032447	+	4	CTX	SOMATIC	VALID
SJACT066_D	7	68143837	+	2	19	16611451	+	2	CTX	SOMATIC	VALID
SJACT066_D	8	4743467	+	7	8	4731193	+	4	INS	SOMATIC	VALID
SJACT066_D	8	51926627	+	3	7	90904077	+	1	CTX	SOMATIC	VALID
SJACT066_D	8	51926627	+	3	7	90904083	+	4	CTX	SOMATIC	VALID
SJACT066_D	8	56199190	-	4	16	2285411	+	2	CTX	SOMATIC	VALID
SJACT066_D	8	56402171	+	6	3	116503557	+	5	CTX	SOMATIC	VALID
SJACT066_D	8	82920876	+	1	9	18719682	+	2	CTX	SOMATIC	VALID
SJACT066_D	9	18719988	+	3	8	82920879	+	3	CTX	SOMATIC	VALID
SJACT066_D	9	122943583	-	6	2	66164037	+	3	CTX	SOMATIC	VALID
SJACT066_D	9	127274148	-	2	18	4429494	+	3	CTX	SOMATIC	VALID
SJACT066_D	9	127274765	+	5	8	66093198	+	3	CTX	SOMATIC	VALID
SJACT066_D	9	133412792	+	3	9	133405295	+	2	INS	SOMATIC	VALID
SJACT066_D	X	27356679	+	7	X	27352634	+	3	INS	SOMATIC	VALID
SJACT066_D	X	73571984	+	8	18	1918986	+	3	CTX	SOMATIC	VALID
SJACT066_D	X	97378037	+	8	X	97377990	+	18	INS	SOMATIC	VALID
SJACT066_D	X	97378059	+	2	X	97377990	+	18	INS	SOMATIC	VALID
SJACT068_D	1	97598765	+	6	1	98365587	+	6	DEL	SOMATIC	VALID
SJACT068_D	1	112922767	+	2	1	113197954	+	9	DEL	SOMATIC	VALID
SJACT068_D	10	36394587	+	5	10	36498668	+	6	DEL	SOMATIC	VALID
SJACT068_D	11	2152783	+	4	11	2166478	+	1	DEL	SOMATIC	VALID
SJACT068_D	11	9624877	+	3	11	9618598	+	8	INS	SOMATIC	VALID
SJACT068_D	13	33138853	+	4	13	33140302	+	12	DEL	SOMATIC	VALID
SJACT068_D	18	45313033	+	1	18	45300294	+	2	INS	SOMATIC	VALID
SJACT068_D	18	67570652	+	4	18	67661380	+	3	DEL	SOMATIC	VALID
SJACT068_D	19	28026136	+	4	19	48367212	+	5	DEL	SOMATIC	VALID
SJACT068_D	19	48731100	+	7	19	48797136	-	3	ITX	SOMATIC	VALID
SJACT068_D	19	50741614	+	7	19	48793862	+	1	INS	SOMATIC	VALID
SJACT068_D	2	17982976	+	3	2	59958324	-	4	ITX	SOMATIC	VALID
SJACT068_D	2	29880356	+	2	2	33004021	+	11	DEL	SOMATIC	VALID
SJACT068_D	2	33012990	+	8	17	41399976	+	3	CTX	SOMATIC	VALID
SJACT068_D	2	37068764	-	9	2	28543580	+	6	ITX	SOMATIC	VALID
SJACT068_D	2	48039311	+	6	2	48103107	+	7	DEL	SOMATIC	VALID
SJACT068_D	2	60005692	-	3	2	59886413	+	6	ITX	SOMATIC	VALID
SJACT068_D	2	70250070	+	2	2	70257750	+	3	DEL	SOMATIC	VALID

SJACT068_D	2	148614185	+	10	2	148636577	+	6	DEL	SOMATIC	VALID
SJACT068_D	20	34748598	+	19	20	34733687	+	11	INS	SOMATIC	VALID
SJACT068_D	20	57758894	+	11	20	57760457	+	3	DEL	SOMATIC	VALID
SJACT068_D	4	1602959	+	13	4	1603670	+	5	DEL	SOMATIC	VALID
SJACT068_D	4	30955660	+	4	4	103769737	-	4	ITX	SOMATIC	VALID
SJACT068_D	4	97549583	+	4	4	97981263	+	7	DEL	SOMATIC	VALID
SJACT068_D	4	103767303	+	3	4	103769141	+	4	DEL	SOMATIC	VALID
SJACT068_D	4	104559935	+	2	4	121078135	+	3	DEL	SOMATIC	VALID
SJACT068_D	4	106600175	+	4	4	106644250	-	5	ITX	SOMATIC	VALID
SJACT068_D	4	107555253	-	8	4	107338047	+	5	ITX	SOMATIC	VALID
SJACT068_D	4	113489667	+	10	4	106338291	+	8	INS	SOMATIC	VALID
SJACT068_D	4	121574239	+	3	4	107037659	+	4	INS	SOMATIC	VALID
SJACT068_D	4	169354088	+	4	4	169334280	+	5	INS	SOMATIC	VALID
SJACT068_D	4	181405144	+	5	4	182183817	+	6	DEL	SOMATIC	VALID
SJACT068_D	4	182175946	+	7	4	182376267	+	5	DEL	SOMATIC	VALID
SJACT068_D	9	19436579	+	10	9	19436302	+	6	INS	SOMATIC	VALID
SJACT068_D	X	75047401	+	4	X	75057105	+	5	DEL	SOMATIC	VALID
SJACT068_D	X	154247133	+	9	X	154249910	+	4	DEL	SOMATIC	VALID
SJACT069_D	1	22645618	+	12	11	95378383	+	8	CTX	SOMATIC	VALID
SJACT069_D	1	30773143	-	2	12	121151373	+	7	CTX	SOMATIC	VALID
SJACT069_D	1	30773478	+	6	1	30780480	+	10	DEL	SOMATIC	VALID
SJACT069_D	1	30773922	+	8	1	21921416	+	7	INS	SOMATIC	VALID
SJACT069_D	1	30774114	+	4	1	21917902	+	4	INS	SOMATIC	VALID
SJACT069_D	1	30782059	+	2	1	30773465	+	10	INS	SOMATIC	VALID
SJACT069_D	1	33422675	+	8	1	32349048	+	10	INS	SOMATIC	VALID
SJACT069_D	1	46544948	+	6	1	45588823	+	6	INS	SOMATIC	VALID
SJACT069_D	1	73276952	+	6	1	73269471	+	8	INS	SOMATIC	VALID
SJACT069_D	1	92143589	+	2	1	91987588	+	7	INS	SOMATIC	VALID
SJACT069_D	1	101040108	-	3	1	101010872	+	8	ITX	SOMATIC	VALID
SJACT069_D	1	102267450	+	6	1	102298831	-	6	ITX	SOMATIC	VALID
SJACT069_D	1	116619238	+	5	1	116544436	+	7	INS	SOMATIC	VALID
SJACT069_D	1	214745631	+	8	4	40131188	+	1	CTX	SOMATIC	VALID
SJACT069_D	1	242734582	+	5	1	242734835	+	2	DEL	SOMATIC	VALID
SJACT069_D	1	242734845	+	2	1	242742717	+	5	DEL	SOMATIC	VALID
SJACT069_D	1	242883080	+	7	1	242734569	+	2	INS	SOMATIC	VALID
SJACT069_D	1	242885961	+	7	1	242732983	+	11	INS	SOMATIC	VALID
SJACT069_D	10	239783	+	7	10	247622	+	8	DEL	SOMATIC	VALID
SJACT069_D	10	7963092	-	1	1	162913586	+	8	CTX	SOMATIC	VALID
SJACT069_D	10	7966347	+	4	10	7961538	+	14	INS	SOMATIC	VALID
SJACT069_D	10	7974446	+	6	10	7965948	+	3	INS	SOMATIC	VALID
SJACT069_D	10	7974826	-	5	10	7960037	+	2	ITX	SOMATIC	VALID

SJACT069_D	10	7975228	+	3	1	162910893	-	6	CTX	SOMATIC	VALID
SJACT069_D	10	11337406	+	6	10	11339809	+	6	DEL	SOMATIC	VALID
SJACT069_D	10	34523160	+	8	10	34487621	+	7	INS	SOMATIC	VALID
SJACT069_D	10	42452277	+	4	5	127933221	-	4	CTX	SOMATIC	VALID
SJACT069_D	10	42452421	-	0	5	137792239	+	7	CTX	SOMATIC	VALID
SJACT069_D	10	42456031	+	7	12	83066584	-	9	CTX	SOMATIC	VALID
SJACT069_D	10	52782391	+	3	10	53112739	+	5	DEL	SOMATIC	VALID
SJACT069_D	10	118634550	+	4	10	118476024	+	8	INS	SOMATIC	VALID
SJACT069_D	11	15389551	+	8	11	15394892	+	10	DEL	SOMATIC	VALID
SJACT069_D	11	38850247	-	13	11	38849686	+	2	ITX	SOMATIC	VALID
SJACT069_D	11	47544946	+	14	11	47390528	+	12	INS	SOMATIC	VALID
SJACT069_D	11	47692788	+	8	11	47292373	+	5	INS	SOMATIC	VALID
SJACT069_D	11	55105144	+	12	11	56058389	+	14	DEL	SOMATIC	VALID
SJACT069_D	11	55867534	+	13	11	56052615	+	12	DEL	SOMATIC	VALID
SJACT069_D	11	55880224	+	34	11	56052920	-	34	ITX	SOMATIC	VALID
SJACT069_D	11	55880240	+	18	11	56031648	+	24	DEL	SOMATIC	VALID
SJACT069_D	11	56052859	+	4	11	55822690	+	21	INS	SOMATIC	VALID
SJACT069_D	11	56058371	-	14	11	55879896	+	16	ITX	SOMATIC	VALID
SJACT069_D	11	56058372	-	18	11	55879865	+	11	ITX	SOMATIC	VALID
SJACT069_D	11	64692467	-	5	11	64661133	+	6	ITX	SOMATIC	VALID
SJACT069_D	11	64693067	+	4	11	65449784	-	5	ITX	SOMATIC	VALID
SJACT069_D	11	65836359	+	8	11	80628989	-	11	ITX	SOMATIC	VALID
SJACT069_D	11	71043833	+	11	11	76536598	-	16	ITX	SOMATIC	VALID
SJACT069_D	11	71153689	+	3	11	86266236	-	4	ITX	SOMATIC	VALID
SJACT069_D	11	71157446	+	4	11	71158197	+	8	DEL	SOMATIC	VALID
SJACT069_D	11	71158776	+	4	11	84911839	+	5	DEL	SOMATIC	VALID
SJACT069_D	11	72392957	+	1	11	71691778	+	35	INS	SOMATIC	VALID
SJACT069_D	11	73529723	-	10	11	71155251	+	3	ITX	SOMATIC	VALID
SJACT069_D	11	75861731	+	22	11	76002458	-	19	ITX	SOMATIC	VALID
SJACT069_D	11	75946839	+	9	11	75779952	+	9	INS	SOMATIC	VALID
SJACT069_D	11	76014470	-	2	6	2520643	+	7	CTX	SOMATIC	VALID
SJACT069_D	11	76486587	+	8	11	76337169	+	9	INS	SOMATIC	VALID
SJACT069_D	11	76537160	-	5	11	65837036	+	4	ITX	SOMATIC	VALID
SJACT069_D	11	76564266	+	1	11	65834549	+	7	INS	SOMATIC	VALID
SJACT069_D	11	76858271	-	8	11	76856937	+	6	ITX	SOMATIC	VALID
SJACT069_D	11	77733763	+	12	11	77641720	+	3	INS	SOMATIC	VALID
SJACT069_D	11	80929092	-	17	11	71072433	+	7	ITX	SOMATIC	VALID
SJACT069_D	11	80944557	+	5	11	89093051	-	13	ITX	SOMATIC	VALID
SJACT069_D	11	81047297	+	4	6	4118681	-	0	CTX	SOMATIC	VALID
SJACT069_D	11	82390416	+	12	11	98257618	-	5	ITX	SOMATIC	VALID
SJACT069_D	11	82438557	+	7	15	102516573	-	4	CTX	SOMATIC	VALID

SJACT069_D	11	83771895	+	6	11	84040885	+	5	DEL	SOMATIC	VALID
SJACT069_D	11	84403073	-	5	11	73460595	+	6	ITX	SOMATIC	VALID
SJACT069_D	11	84458072	+	9	11	98372770	-	6	ITX	SOMATIC	VALID
SJACT069_D	11	84911637	+	10	11	89870346	+	6	DEL	SOMATIC	VALID
SJACT069_D	11	84912330	+	5	11	96841784	-	7	ITX	SOMATIC	VALID
SJACT069_D	11	85009238	+	3	11	78575939	+	5	INS	SOMATIC	VALID
SJACT069_D	11	85079524	+	7	11	85151612	+	10	DEL	SOMATIC	VALID
SJACT069_D	11	85409130	-	12	11	71160411	+	7	ITX	SOMATIC	VALID
SJACT069_D	11	85411461	+	11	11	89869210	+	6	DEL	SOMATIC	VALID
SJACT069_D	11	85450301	+	13	11	96212629	-	9	ITX	SOMATIC	VALID
SJACT069_D	11	85454609	+	9	11	91800866	-	4	ITX	SOMATIC	VALID
SJACT069_D	11	85616074	+	12	11	85305250	+	16	INS	SOMATIC	VALID
SJACT069_D	11	89870068	-	11	11	84911112	+	2	ITX	SOMATIC	VALID
SJACT069_D	11	89870356	+	3	11	84911268	+	4	INS	SOMATIC	VALID
SJACT069_D	11	89940187	+	10	11	91332281	+	4	DEL	SOMATIC	VALID
SJACT069_D	11	90367345	+	6	11	96172411	+	8	DEL	SOMATIC	VALID
SJACT069_D	11	90760506	+	19	11	91345564	-	8	ITX	SOMATIC	VALID
SJACT069_D	11	90917209	+	1	11	92078890	+	6	DEL	SOMATIC	VALID
SJACT069_D	11	90940384	-	9	11	82437139	+	10	ITX	SOMATIC	VALID
SJACT069_D	11	91063100	-	5	11	85519571	+	23	ITX	SOMATIC	VALID
SJACT069_D	11	91094307	+	3	11	98300118	+	9	DEL	SOMATIC	VALID
SJACT069_D	11	91332444	+	3	11	91345314	+	3	DEL	SOMATIC	VALID
SJACT069_D	11	91349190	+	5	11	99781285	+	7	DEL	SOMATIC	VALID
SJACT069_D	11	91563740	+	8	11	76459482	+	4	INS	SOMATIC	VALID
SJACT069_D	11	92267123	+	6	11	91093250	+	12	INS	SOMATIC	VALID
SJACT069_D	11	94322301	+	6	11	98966317	+	9	DEL	SOMATIC	VALID
SJACT069_D	11	96149299	-	10	11	91348662	+	9	ITX	SOMATIC	VALID
SJACT069_D	11	96153954	+	8	11	91409155	+	9	INS	SOMATIC	VALID
SJACT069_D	11	96153955	-	5	11	86196225	+	6	ITX	SOMATIC	VALID
SJACT069_D	11	96171757	+	4	11	92040709	+	5	INS	SOMATIC	VALID
SJACT069_D	11	96214082	+	6	11	85450304	+	3	INS	SOMATIC	VALID
SJACT069_D	11	96609141	+	9	11	96201734	+	3	INS	SOMATIC	VALID
SJACT069_D	11	96827749	+	7	11	98035822	-	3	ITX	SOMATIC	VALID
SJACT069_D	11	96844152	+	9	11	71156720	+	17	INS	SOMATIC	VALID
SJACT069_D	11	96844750	+	13	11	84906206	+	8	INS	SOMATIC	VALID
SJACT069_D	11	96898227	-	14	11	96856308	+	6	ITX	SOMATIC	VALID
SJACT069_D	11	98053754	+	2	11	98085176	+	2	DEL	SOMATIC	VALID
SJACT069_D	11	98132123	+	6	6	2442194	-	5	CTX	SOMATIC	VALID
SJACT069_D	11	102106763	+	5	11	122978571	-	4	ITX	SOMATIC	VALID
SJACT069_D	11	110519809	-	3	11	95931065	+	15	ITX	SOMATIC	VALID
SJACT069_D	11	111249412	+	4	11	94319941	+	6	INS	SOMATIC	VALID

SJACT069_D	11	127945288	-	9	11	127941843	+	9	ITX	SOMATIC	VALID
SJACT069_D	11	130807943	+	6	11	131025578	+	3	DEL	SOMATIC	VALID
SJACT069_D	11	131031902	+	4	11	133935940	+	5	DEL	SOMATIC	VALID
SJACT069_D	11	133936293	+	7	20	60591209	+	8	CTX	SOMATIC	VALID
SJACT069_D	11	134860923	+	3	11	134863741	-	11	ITX	SOMATIC	VALID
SJACT069_D	12	19796698	+	10	12	19797627	+	12	DEL	SOMATIC	VALID
SJACT069_D	12	41192416	+	10	12	38060741	+	6	INS	SOMATIC	VALID
SJACT069_D	12	48197885	+	5	12	48121393	+	3	INS	SOMATIC	VALID
SJACT069_D	12	55551316	-	10	12	55503982	+	5	ITX	SOMATIC	VALID
SJACT069_D	12	55898281	+	4	12	55388408	+	9	INS	SOMATIC	VALID
SJACT069_D	12	56033357	+	10	12	61199428	-	7	ITX	SOMATIC	VALID
SJACT069_D	12	59196016	+	11	12	60518660	+	10	DEL	SOMATIC	VALID
SJACT069_D	12	59419552	+	2	12	59634500	-	4	ITX	SOMATIC	VALID
SJACT069_D	12	59433240	+	10	5	135863698	+	7	CTX	SOMATIC	VALID
SJACT069_D	12	59448030	+	10	12	82519543	-	5	ITX	SOMATIC	VALID
SJACT069_D	12	59452259	+	7	12	82514186	+	4	DEL	SOMATIC	VALID
SJACT069_D	12	59635281	+	14	12	82338100	+	8	DEL	SOMATIC	VALID
SJACT069_D	12	59655472	+	11	5	141682860	+	0	CTX	SOMATIC	VALID
SJACT069_D	12	71637251	+	3	12	71416444	+	2	INS	SOMATIC	VALID
SJACT069_D	12	82331270	+	12	5	136473445	-	6	CTX	SOMATIC	VALID
SJACT069_D	12	82339660	+	7	5	137534558	+	9	CTX	SOMATIC	VALID
SJACT069_D	12	82518226	+	6	5	127228066	-	9	CTX	SOMATIC	VALID
SJACT069_D	12	82518831	+	9	5	127413734	-	11	CTX	SOMATIC	VALID
SJACT069_D	12	82521480	+	10	5	126904180	-	14	CTX	SOMATIC	VALID
SJACT069_D	12	83071865	+	5	5	135794421	+	7	CTX	SOMATIC	VALID
SJACT069_D	12	87431229	+	6	12	87562703	+	10	DEL	SOMATIC	VALID
SJACT069_D	12	87595308	+	9	12	87603530	+	7	DEL	SOMATIC	VALID
SJACT069_D	12	92342192	+	0	12	92309997	+	10	INS	SOMATIC	VALID
SJACT069_D	12	92342227	+	2	12	92309997	+	10	INS	SOMATIC	VALID
SJACT069_D	12	112613156	+	4	12	112454468	+	2	INS	SOMATIC	VALID
SJACT069_D	12	121868431	+	8	12	121151229	+	6	INS	SOMATIC	VALID
SJACT069_D	12	121879171	+	6	1	31738876	-	4	CTX	SOMATIC	VALID
SJACT069_D	12	125256659	-	6	6	57872156	+	9	CTX	SOMATIC	VALID
SJACT069_D	13	95113109	+	3	13	95113563	+	8	DEL	SOMATIC	VALID
SJACT069_D	14	32335102	+	8	14	33111681	+	3	DEL	SOMATIC	VALID
SJACT069_D	14	49640099	+	15	18	34230617	-	22	CTX	SOMATIC	VALID
SJACT069_D	14	50432770	+	6	14	50129707	+	5	INS	SOMATIC	VALID
SJACT069_D	14	50727107	+	8	18	34230610	+	6	CTX	SOMATIC	VALID
SJACT069_D	14	50729812	-	8	14	49668018	+	6	ITX	SOMATIC	VALID
SJACT069_D	14	50729823	+	18	14	49639241	+	28	INS	SOMATIC	VALID
SJACT069_D	14	67837614	+	4	14	67838085	+	7	DEL	SOMATIC	VALID

SJACT069_D	14	101273371	+	12	22	29551589	-	9	CTX	SOMATIC	VALID
SJACT069_D	14	102652894	+	1	14	102513951	+	3	INS	SOMATIC	VALID
SJACT069_D	14	103577966	-	9	14	101192281	+	5	ITX	SOMATIC	VALID
SJACT069_D	14	103746657	+	5	22	29522028	+	9	CTX	SOMATIC	VALID
SJACT069_D	15	22385041	+	17	17	81184967	-	8	CTX	SOMATIC	VALID
SJACT069_D	15	80086376	+	9	15	83919507	+	11	DEL	SOMATIC	VALID
SJACT069_D	15	80106308	+	12	15	83939187	-	4	ITX	SOMATIC	VALID
SJACT069_D	15	83414140	-	7	15	80084747	+	9	ITX	SOMATIC	VALID
SJACT069_D	15	83464176	+	9	15	83712194	+	10	DEL	SOMATIC	VALID
SJACT069_D	15	83725569	+	0	15	83677606	+	8	INS	SOMATIC	VALID
SJACT069_D	15	83823732	+	5	15	83808227	+	2	INS	SOMATIC	VALID
SJACT069_D	15	83871527	+	4	5	671866	-	5	CTX	SOMATIC	VALID
SJACT069_D	15	83887698	+	5	15	83863044	+	7	INS	SOMATIC	VALID
SJACT069_D	15	83887724	-	11	15	83820795	+	13	ITX	SOMATIC	VALID
SJACT069_D	16	7954000	+	7	16	6791871	+	16	INS	SOMATIC	VALID
SJACT069_D	16	24900238	-	8	16	24894475	+	4	ITX	SOMATIC	VALID
SJACT069_D	16	50260353	+	6	16	50103902	+	2	INS	SOMATIC	VALID
SJACT069_D	16	57961480	+	4	16	57768929	+	2	INS	SOMATIC	VALID
SJACT069_D	16	78167556	+	3	16	78153509	+	6	INS	SOMATIC	VALID
SJACT069_D	17	40765260	+	4	17	39990898	+	10	INS	SOMATIC	VALID
SJACT069_D	17	47046639	+	4	17	46042767	+	8	INS	SOMATIC	VALID
SJACT069_D	17	72176674	+	3	17	72172007	+	10	INS	SOMATIC	VALID
SJACT069_D	17	79307448	+	6	17	79157360	+	5	INS	SOMATIC	VALID
SJACT069_D	18	27162160	+	6	18	30428077	-	5	ITX	SOMATIC	VALID
SJACT069_D	18	30518323	+	10	19	54665888	-	8	CTX	SOMATIC	VALID
SJACT069_D	18	34232638	+	8	18	34243024	-	5	ITX	SOMATIC	VALID
SJACT069_D	19	11471566	+	2	19	21368984	+	6	DEL	SOMATIC	VALID
SJACT069_D	19	11474449	+	3	19	22245197	-	4	ITX	SOMATIC	VALID
SJACT069_D	19	11614662	+	5	19	21380701	-	7	ITX	SOMATIC	VALID
SJACT069_D	19	14711421	+	9	19	14731813	+	4	DEL	SOMATIC	VALID
SJACT069_D	19	14730902	+	6	19	14778906	-	5	ITX	SOMATIC	VALID
SJACT069_D	19	16558464	+	3	19	14639023	+	3	INS	SOMATIC	VALID
SJACT069_D	19	21416881	+	11	19	11618217	+	8	INS	SOMATIC	VALID
SJACT069_D	19	21418811	-	17	19	13377718	+	16	ITX	SOMATIC	VALID
SJACT069_D	19	21920637	+	11	19	28552630	+	10	DEL	SOMATIC	VALID
SJACT069_D	19	37306472	+	9	19	37543255	+	5	DEL	SOMATIC	VALID
SJACT069_D	19	53958974	-	7	18	29744292	+	8	CTX	SOMATIC	VALID
SJACT069_D	2	8331383	-	2	2	8250204	+	13	ITX	SOMATIC	VALID
SJACT069_D	2	8331390	+	5	2	8334786	+	9	DEL	SOMATIC	VALID
SJACT069_D	2	8535476	+	5	2	8331139	+	6	INS	SOMATIC	VALID
SJACT069_D	2	20686644	+	3	1	110095123	+	4	CTX	SOMATIC	VALID

SJACT069_D	2	87450486	+	9	2	92029903	+	5	DEL	SOMATIC	VALID
SJACT069_D	2	207677674	-	7	2	207662928	+	12	ITX	SOMATIC	VALID
SJACT069_D	2	239447538	+	8	2	239425975	+	10	INS	SOMATIC	VALID
SJACT069_D	20	1252400	+	4	20	1218860	+	7	INS	SOMATIC	VALID
SJACT069_D	20	33288136	+	7	20	33290608	-	5	ITX	SOMATIC	VALID
SJACT069_D	20	34034971	+	5	20	34026384	+	8	INS	SOMATIC	VALID
SJACT069_D	20	34040077	+	5	20	34045897	+	7	DEL	SOMATIC	VALID
SJACT069_D	20	34041856	-	7	20	34008492	+	7	ITX	SOMATIC	VALID
SJACT069_D	20	34044201	+	14	20	34029115	+	17	INS	SOMATIC	VALID
SJACT069_D	20	43178190	+	10	20	43200076	+	4	DEL	SOMATIC	VALID
SJACT069_D	20	43201113	+	3	20	43044271	+	3	INS	SOMATIC	VALID
SJACT069_D	20	59986928	+	10	20	60082017	-	2	ITX	SOMATIC	VALID
SJACT069_D	20	60057672	+	5	20	60315070	+	5	DEL	SOMATIC	VALID
SJACT069_D	20	60083711	+	7	20	60081045	+	9	INS	SOMATIC	VALID
SJACT069_D	20	60341178	+	7	20	59983686	+	5	INS	SOMATIC	VALID
SJACT069_D	20	61642777	+	12	20	60080815	+	9	INS	SOMATIC	VALID
SJACT069_D	21	16755999	+	8	21	16697620	+	4	INS	SOMATIC	VALID
SJACT069_D	22	26684144	+	24	14	49640102	+	19	CTX	SOMATIC	VALID
SJACT069_D	22	29551588	-	8	22	29504521	+	6	ITX	SOMATIC	VALID
SJACT069_D	22	29552103	+	8	14	101168849	+	3	CTX	SOMATIC	VALID
SJACT069_D	22	38179583	-	13	11	64865757	+	3	CTX	SOMATIC	VALID
SJACT069_D	3	15100011	-	10	3	15086747	+	6	ITX	SOMATIC	VALID
SJACT069_D	3	16042503	+	7	3	16071799	-	5	ITX	SOMATIC	VALID
SJACT069_D	3	52883817	+	1	3	52810470	+	2	INS	SOMATIC	VALID
SJACT069_D	3	115441314	+	8	3	115611255	+	9	DEL	SOMATIC	VALID
SJACT069_D	3	116107977	+	7	3	116120642	-	10	ITX	SOMATIC	VALID
SJACT069_D	3	116187333	+	6	3	116150385	+	9	INS	SOMATIC	VALID
SJACT069_D	3	116298523	-	8	3	116110292	+	9	ITX	SOMATIC	VALID
SJACT069_D	3	116696620	+	13	3	116950093	+	4	DEL	SOMATIC	VALID
SJACT069_D	3	135892642	+	5	3	135889824	+	10	INS	SOMATIC	VALID
SJACT069_D	3	183657511	+	5	3	182581451	+	5	INS	SOMATIC	VALID
SJACT069_D	4	40462564	+	7	4	40549496	+	6	DEL	SOMATIC	VALID
SJACT069_D	4	41282598	+	4	1	214745241	+	4	CTX	SOMATIC	VALID
SJACT069_D	4	125597792	+	2	4	125597672	+	3	INS	SOMATIC	VALID
SJACT069_D	4	128632558	+	4	4	128761392	+	6	DEL	SOMATIC	VALID
SJACT069_D	4	145505264	+	5	4	146047546	+	7	DEL	SOMATIC	VALID
SJACT069_D	4	182322015	+	3	4	182512212	+	9	DEL	SOMATIC	VALID
SJACT069_D	4	182391787	+	6	4	182784594	+	5	DEL	SOMATIC	VALID
SJACT069_D	5	683322	+	2	5	683664	+	4	DEL	SOMATIC	VALID
SJACT069_D	5	4893450	+	11	2	207665017	+	3	CTX	SOMATIC	VALID
SJACT069_D	5	15320626	+	2	5	39314851	+	1	DEL	SOMATIC	VALID

SJACT069_D	5	23304366	-	2	5	15423328	+	2	ITX	SOMATIC	VALID
SJACT069_D	5	52125709	+	7	5	52126507	+	8	DEL	SOMATIC	VALID
SJACT069_D	5	73536701	+	3	5	73335344	+	9	INS	SOMATIC	VALID
SJACT069_D	5	79788598	+	11	5	79846735	+	4	DEL	SOMATIC	VALID
SJACT069_D	5	80562172	+	9	5	80562473	+	4	DEL	SOMATIC	VALID
SJACT069_D	5	80564225	+	9	5	86898103	-	7	ITX	SOMATIC	VALID
SJACT069_D	5	86680481	+	5	5	79849133	+	7	INS	SOMATIC	VALID
SJACT069_D	5	94843556	+	5	5	94859162	+	6	DEL	SOMATIC	VALID
SJACT069_D	5	94896640	+	3	5	94815510	+	4	INS	SOMATIC	VALID
SJACT069_D	5	112557238	+	9	5	112572655	-	8	ITX	SOMATIC	VALID
SJACT069_D	5	112557579	-	5	5	112682243	+	4	ITX	SOMATIC	VALID
SJACT069_D	5	126888644	+	4	5	141251184	-	6	ITX	SOMATIC	VALID
SJACT069_D	5	126897132	+	8	12	82518424	+	6	CTX	SOMATIC	VALID
SJACT069_D	5	126902284	+	10	5	127924030	-	7	ITX	SOMATIC	VALID
SJACT069_D	5	126902942	-	9	12	59634526	+	10	CTX	SOMATIC	VALID
SJACT069_D	5	127209552	+	7	5	134150222	-	8	ITX	SOMATIC	VALID
SJACT069_D	5	127428582	+	8	5	137764590	-	8	ITX	SOMATIC	VALID
SJACT069_D	5	127429098	+	9	12	59419229	+	8	CTX	SOMATIC	VALID
SJACT069_D	5	127438010	+	5	5	127212961	+	5	INS	SOMATIC	VALID
SJACT069_D	5	127921254	-	5	10	42450997	+	18	CTX	SOMATIC	VALID
SJACT069_D	5	127922352	+	9	5	137755385	+	4	DEL	SOMATIC	VALID
SJACT069_D	5	132317813	+	4	5	132283485	+	9	INS	SOMATIC	VALID
SJACT069_D	5	132786619	-	8	12	82519073	+	6	CTX	SOMATIC	VALID
SJACT069_D	5	133516226	-	3	5	126888158	+	6	ITX	SOMATIC	VALID
SJACT069_D	5	133519730	+	8	12	82529066	+	8	CTX	SOMATIC	VALID
SJACT069_D	5	133528092	-	10	5	127921740	+	3	ITX	SOMATIC	VALID
SJACT069_D	5	134149143	-	9	12	82519712	+	4	CTX	SOMATIC	VALID
SJACT069_D	5	134153218	+	7	10	42457422	+	14	CTX	SOMATIC	VALID
SJACT069_D	5	134158230	+	2	5	135759861	-	9	ITX	SOMATIC	VALID
SJACT069_D	5	134504181	+	6	5	137902040	+	7	DEL	SOMATIC	VALID
SJACT069_D	5	135764753	+	2	5	135776363	-	2	ITX	SOMATIC	VALID
SJACT069_D	5	135776214	-	2	12	59451295	+	10	CTX	SOMATIC	VALID
SJACT069_D	5	135777544	+	8	5	135088263	+	6	INS	SOMATIC	VALID
SJACT069_D	5	135854816	-	7	12	83066880	+	6	CTX	SOMATIC	VALID
SJACT069_D	5	135854817	+	4	5	127429764	+	5	INS	SOMATIC	VALID
SJACT069_D	5	135863685	+	4	5	137764609	+	8	DEL	SOMATIC	VALID
SJACT069_D	5	135864243	+	11	5	141676419	+	7	DEL	SOMATIC	VALID
SJACT069_D	5	135869460	+	8	5	137527804	+	1	DEL	SOMATIC	VALID
SJACT069_D	5	135869932	-	9	5	127931885	+	3	ITX	SOMATIC	VALID
SJACT069_D	5	136472193	-	10	12	82517578	+	13	CTX	SOMATIC	VALID
SJACT069_D	5	137536430	+	7	12	59653794	+	4	CTX	SOMATIC	VALID

SJACT069_D	5	137755585	+	0	12	59433250	+	9	CTX	SOMATIC	VALID
SJACT069_D	5	137756682	-	7	5	127922809	+	7	ITX	SOMATIC	VALID
SJACT069_D	5	137780851	+	11	12	83054447	+	3	CTX	SOMATIC	VALID
SJACT069_D	5	137866915	+	7	5	127404382	+	10	INS	SOMATIC	VALID
SJACT069_D	5	137880844	-	7	12	82328330	+	10	CTX	SOMATIC	VALID
SJACT069_D	5	137887622	-	5	5	135850968	+	8	ITX	SOMATIC	VALID
SJACT069_D	5	137887625	+	6	5	137905688	-	8	ITX	SOMATIC	VALID
SJACT069_D	5	137900344	+	9	5	127427447	+	7	INS	SOMATIC	VALID
SJACT069_D	5	137984670	+	2	5	126889035	+	7	INS	SOMATIC	VALID
SJACT069_D	5	138100073	+	7	5	137051408	+	8	INS	SOMATIC	VALID
SJACT069_D	5	138100252	+	8	5	137098715	+	4	INS	SOMATIC	VALID
SJACT069_D	5	140990767	+	2	5	148714901	+	7	DEL	SOMATIC	VALID
SJACT069_D	5	141251193	-	5	5	134155248	+	6	ITX	SOMATIC	VALID
SJACT069_D	5	141254074	+	7	5	134152994	+	7	INS	SOMATIC	VALID
SJACT069_D	5	141679320	+	15	8	128241493	+	6	CTX	SOMATIC	VALID
SJACT069_D	5	141680113	+	8	5	148682885	+	3	DEL	SOMATIC	VALID
SJACT069_D	5	141681476	+	5	5	141006353	+	6	INS	SOMATIC	VALID
SJACT069_D	5	149847986	+	5	5	141680441	+	6	INS	SOMATIC	VALID
SJACT069_D	5	149850726	+	9	8	128211787	+	4	CTX	SOMATIC	VALID
SJACT069_D	5	149851999	-	2	5	141682272	+	8	ITX	SOMATIC	VALID
SJACT069_D	6	2521682	+	2	6	2797252	+	5	DEL	SOMATIC	VALID
SJACT069_D	6	2789752	+	1	6	4086110	+	4	DEL	SOMATIC	VALID
SJACT069_D	6	2797480	+	1	6	4119312	+	6	DEL	SOMATIC	VALID
SJACT069_D	6	3134171	-	10	11	98126723	+	4	CTX	SOMATIC	VALID
SJACT069_D	6	3558501	+	2	6	4055675	-	7	ITX	SOMATIC	VALID
SJACT069_D	6	4036874	+	13	11	79755036	-	1	CTX	SOMATIC	VALID
SJACT069_D	6	4049856	-	10	11	96828492	+	10	CTX	SOMATIC	VALID
SJACT069_D	6	4118606	+	11	11	76016366	+	11	CTX	SOMATIC	VALID
SJACT069_D	6	4119105	+	5	6	2795904	+	6	INS	SOMATIC	VALID
SJACT069_D	6	4119313	-	2	11	81046831	+	10	CTX	SOMATIC	VALID
SJACT069_D	6	8899511	+	6	6	8873854	+	7	INS	SOMATIC	VALID
SJACT069_D	6	42870376	+	1	6	42862133	+	4	INS	SOMATIC	VALID
SJACT069_D	6	57834948	+	8	6	57868497	-	4	ITX	SOMATIC	VALID
SJACT069_D	6	64088127	+	3	6	63994873	+	6	INS	SOMATIC	VALID
SJACT069_D	6	64663484	-	5	6	57587776	+	9	ITX	SOMATIC	VALID
SJACT069_D	6	66946312	+	3	6	96151441	-	10	ITX	SOMATIC	VALID
SJACT069_D	6	68761704	+	7	6	68780397	-	6	ITX	SOMATIC	VALID
SJACT069_D	6	86778606	+	6	6	86781187	-	2	ITX	SOMATIC	VALID
SJACT069_D	6	90689389	+	15	6	106781461	-	17	ITX	SOMATIC	VALID
SJACT069_D	6	96166844	+	5	6	68729007	+	9	INS	SOMATIC	VALID
SJACT069_D	6	104557827	-	16	6	90909330	+	12	ITX	SOMATIC	VALID

SJACT069_D	6	104647319	+	3	6	104671495	+	6	DEL	SOMATIC	VALID
SJACT069_D	6	106727335	+	19	6	90683610	+	15	INS	SOMATIC	VALID
SJACT069_D	6	106730121	-	14	18	26568576	+	18	CTX	SOMATIC	VALID
SJACT069_D	6	138174134	+	8	6	138071120	+	7	INS	SOMATIC	VALID
SJACT069_D	7	1050357	+	5	7	953788	+	2	INS	SOMATIC	VALID
SJACT069_D	7	1303435	+	5	7	1207808	+	5	INS	SOMATIC	VALID
SJACT069_D	7	93982891	+	5	7	93850528	+	7	INS	SOMATIC	VALID
SJACT069_D	8	38725268	+	8	8	37852825	+	4	INS	SOMATIC	VALID
SJACT069_D	8	82105737	+	12	8	129239405	-	5	ITX	SOMATIC	VALID
SJACT069_D	8	95076389	+	14	8	94950567	+	8	INS	SOMATIC	VALID
SJACT069_D	8	112823346	+	7	8	124025939	+	7	DEL	SOMATIC	VALID
SJACT069_D	8	113818382	-	8	8	80979698	+	3	ITX	SOMATIC	VALID
SJACT069_D	8	114432122	+	10	8	124512784	-	3	ITX	SOMATIC	VALID
SJACT069_D	8	128220647	+	8	8	129378730	-	5	ITX	SOMATIC	VALID
SJACT069_D	8	129170960	-	6	8	92079020	+	13	ITX	SOMATIC	VALID
SJACT069_D	8	129378801	+	9	8	128178137	+	4	INS	SOMATIC	VALID
SJACT069_D	9	14746361	+	17	9	14911761	+	8	DEL	SOMATIC	VALID
SJACT069_D	9	28015260	+	8	9	18217215	+	7	INS	SOMATIC	VALID
SJACT069_D	9	32142690	+	11	9	32148477	+	8	DEL	SOMATIC	VALID
SJACT069_D	9	107413158	+	4	9	107414190	-	5	ITX	SOMATIC	VALID
SJACT069_D	9	107413981	-	5	9	107413160	+	6	ITX	SOMATIC	VALID
SJACT069_D	9	119596785	+	7	9	119495037	+	7	INS	SOMATIC	VALID
SJACT069_D	9	131010624	+	1	9	130795396	+	4	INS	SOMATIC	VALID
SJACT070_D	1	244551747	+	3	1	244551530	+	3	INS	SOMATIC	VALID
SJACT070_D	3	31898476	+	4	3	31898046	+	5	INS	SOMATIC	VALID
SJACT070_D	4	181938971	+	2	4	182441410	+	2	DEL	SOMATIC	VALID
SJACT070_D	4	182023891	+	2	4	182197156	+	1	DEL	SOMATIC	VALID
SJACT070_D	6	161076090	+	7	6	161072907	+	4	INS	SOMATIC	VALID
SJACT071_D	1	52056965	+	0	1	52049421	+	9	INS	SOMATIC	VALID
SJACT071_D	1	56535273	+	2	5	32217741	-	5	CTX	SOMATIC	VALID
SJACT071_D	1	156073614	+	3	3	52277067	-	0	CTX	SOMATIC	VALID
SJACT071_D	1	203951211	-	1	9	101541277	+	3	CTX	SOMATIC	VALID
SJACT071_D	1	209701081	-	5	1	155925881	+	4	ITX	SOMATIC	VALID
SJACT071_D	1	210918500	+	6	1	210918377	+	4	INS	SOMATIC	VALID
SJACT071_D	10	32237874	+	2	10	32224455	+	2	INS	SOMATIC	VALID
SJACT071_D	10	135087767	+	2	10	135022159	+	3	INS	SOMATIC	VALID
SJACT071_D	11	20083750	+	5	11	20075368	+	5	INS	SOMATIC	VALID
SJACT071_D	11	111553509	+	5	7	87155116	+	0	CTX	SOMATIC	VALID
SJACT071_D	12	117606398	+	4	8	128167136	-	4	CTX	SOMATIC	VALID
SJACT071_D	14	50344796	-	6	1	56511711	+	3	CTX	SOMATIC	VALID
SJACT071_D	14	50513142	+	7	1	56375099	+	7	CTX	SOMATIC	VALID

SJACT071_D	14	64279639	+	6	14	64265568	+	6	INS	SOMATIC	VALID
SJACT071_D	15	100135905	+	5	15	100140513	+	3	DEL	SOMATIC	VALID
SJACT071_D	16	57953305	+	6	16	57932978	+	4	INS	SOMATIC	VALID
SJACT071_D	19	1789952	+	2	19	18685854	-	3	ITX	SOMATIC	VALID
SJACT071_D	19	18792841	+	6	19	18683423	+	3	INS	SOMATIC	VALID
SJACT071_D	2	12437805	+	1	1	203954159	+	2	CTX	SOMATIC	VALID
SJACT071_D	2	12806375	+	4	20	45806298	-	3	CTX	SOMATIC	VALID
SJACT071_D	20	5194662	+	3	20	5195325	+	2	DEL	SOMATIC	VALID
SJACT071_D	20	5195163	+	3	20	5195304	+	1	DEL	SOMATIC	VALID
SJACT071_D	20	5195491	+	31	20	4822766	+	20	INS	SOMATIC	VALID
SJACT071_D	20	5831677	+	4	8	128006600	-	3	CTX	SOMATIC	VALID
SJACT071_D	20	6021397	+	1	19	1733937	+	5	CTX	SOMATIC	VALID
SJACT071_D	22	24213534	+	4	9	130461935	+	4	CTX	SOMATIC	VALID
SJACT071_D	3	15458207	+	5	3	15441325	+	5	INS	SOMATIC	VALID
SJACT071_D	3	171837280	+	1	1	16890601	+	3	CTX	SOMATIC	VALID
SJACT071_D	5	32217421	-	4	2	190390510	+	2	CTX	SOMATIC	VALID
SJACT071_D	5	133584748	+	2	6	2874935	-	1	CTX	SOMATIC	VALID
SJACT071_D	6	43851789	+	6	6	43826640	+	2	INS	SOMATIC	VALID
SJACT071_D	6	135406588	+	3	6	135405800	+	2	INS	SOMATIC	VALID
SJACT071_D	6	135406919	+	1	6	135404310	+	3	INS	SOMATIC	VALID
SJACT071_D	7	87153286	-	1	20	5831373	+	2	CTX	SOMATIC	VALID
SJACT071_D	7	87154626	-	1	22	24213319	+	3	CTX	SOMATIC	VALID
SJACT071_D	7	87154856	+	12	7	87153264	+	9	INS	SOMATIC	VALID
SJACT071_D	7	87155208	+	0	11	111366592	+	9	CTX	SOMATIC	VALID
SJACT071_D	7	137881085	+	4	7	137756251	+	6	INS	SOMATIC	VALID
SJACT071_D	8	128005827	-	8	12	117508933	+	4	CTX	SOMATIC	VALID
SJACT071_D	9	34146463	+	3	9	34130546	+	1	INS	SOMATIC	VALID
SJACT071_D	9	92489501	+	7	20	6020407	+	2	CTX	SOMATIC	VALID
SJACT071_D	9	92846891	+	5	9	92830987	+	7	INS	SOMATIC	VALID

Chr=chromosome, pos=position

Supplementary Table 4 Functional fusion genes detected in RNAseq

Sample ID	Genes_RNA	chra_RNA	posa_RNA	oria_RNA	chrb_RNA	posb_RNA	orib_RNA	chra_DNA	posa_DNA	oria_DNA	chrb_DNA	posb_DNA	orib_DNA	Type_DNA
SJACT001_D	ABO_FAM171A1	9	136150578	-	10	15326105	-	10	15411941	+	9	136138871	+	CTX
SJACT001_D	NEB_CACNB4	2	152534092	-	2	1.53E+08	-	2	152944437	+	2	152534090	+	INS
SJACT005_D	CATSPERG_CHST8	19	38835009	+	19	34262862	+	19	38837248	+	19	34262719	+	INS
SJACT005_D	MCM5_FSD1	22	35817455	+	19	4317176	+	22	35817475	+	19	4316696	+	CTX
SJACT008_D	CTPS2_PCP4L1	X	16711264	-	1	1.61E+08	+	X	16709770	-	1	161243452	+	CTX
SJACT008_D	DDX50_STOX1	10	70679738	+	10	70652347	+	10	70680381	+	10	70645596	+	INS
SJACT008_D	POLR3B_TCP11L2	12	106763461	+	12	1.07E+08	+	12	106769291	+	12	106716353	+	INS
SJACT008_D	ARID3B_RORA	15	74836829	+	15	61077370	-	15	61079014	+	15	60911949	-	ITX
SJACT060_D	PPTC7_LIPF	12	111020613	-	10	90428319	+	15	45487853	+	12	111018665	+	CTX
SJACT060_D	PPTC7_LIPF	12	111020613	-	10	90428319	+	15	45487387	-	10	90427947	+	CTX
SJACT062_D	C19orf10_ATG2A	19	4668606	-	11	64662681	-	11	64662702	+	19	4668167	+	CTX
SJACT069_D	FHOD3_L2HGDH	18	34205713	+	14	50713971	-	14	49640099	+	18	34230617	-	CTX

Chr = chromosome; pos = position; ori = strand orientation; CTX = interchromosomal translocation; INS = tandem duplication; ITX = intrachromosomal translocation; RNA = translocation information in RNA-seq; DNA = translocation information in WGS; a = breakpoint A; b= breakpoint B

Supplementary Table 5 Similarities and differences between adult and pediatric cases based on integrative and extensive molecular characterization

	Assié *et al* Nature Genetics, 46, 607-612, 2014	**Pinto *et al* Present study**
Number cases	45 (Discovery cohort) + 77 (Independent cohort) adult cases	19 WGS and 18 WES samples (Discovery cohort) + 34 (Independent cohort) pediatric cases
Chromosomal Instability	Gains for chromosomes 4,5,7,8,12,16,19,20 and deletion for 1p and 22	Gains for almost all chromosomes overrepresented by 9q and 19. Deletion for 4q and 10p
3q13.1	Recurrent homozygous deletion	No CNA identified
4q34.3	Recurrent homozygous deletion with no overlapping region, peak centered at *LINC00290* locus	Somatic focal deletion in 11 (58%) of cases. The most common deleted region overlapped a 5-Mb area encompassing *LINC00290* locus
9q	No CNA identified	Amplification in 90% (17 out 19) cases with no overlapping region
11p LOH	82% (mostly cn-LOH)	91% (cn-LOH with selection against maternal chromosome 100% of tested cases)
Mutation spectrum	C>T transition C>A transversion in hypermutated samples (n=2)	C>T transition also in hypermutated samples (kataegis: n=4)

Somatic mutations	Range of 3 to 71 (total mutations)	Range of 1 to 97 (total for non-silent mutations)
Wnt/B-catenin pathway – activating mutations	*ZNRF3* (21%); *CTNNB1* (16%); *APC* (2%) cases. *ZNFR3* and *CTNNB1* mutually exclusive.	*CTNNB1* (19%) (13 out 71 cases)
***TP53*-inactivating mutations**	16% cases (inactivating mutations or homozygous deletion)	51% cases with germline *TP53* mutations (30% if excluding the R337H-*TP5*3 mutant cases). Somatic point mutations or homozygous deletion in 6 cases. Germline *TP53* and somatic *CTNNB1* mutation were mutually exclusive.
MEN1	7% cases (inactivating mutations)	no point mutations, no SVs, no focal CNAs
DAXX	6% cases (inactivating mutations)	no point mutations, no SVs, no focal CNAs
MED12	13% cases (damaging mutations)	1 of 37 (2%) cases
ATRX	4% cases	Seven of 37 (19%) cases) - 6 tumors (SVs) and 1 missense mutation (all associated with *TP53* mutation)
TERT	Recurrent high level amplification	Non focal amplification 68% cases. No mutation at promoter region and no expression observed by RNAseq
***ALT* phenotype**	25% cases (5 out 20). Associate with *DAXX* or *ATRX* mutation in 4 cases	28% cases (6 out 22). Associate with *ATRX* mutation in 5 cases
CDKN2A	(11%) cases homozygous deletion	2 of 37 (5%)) cases with no focal deletions
RB1	(7%) cases homozygous deletion	8 of 37 (22%) cases with no focal RB1 amplification

CDK4	(2%) cases high level amplification	no point mutations, no SVs, no focal CNAs
MDM2	(2%) cases high level amplification	no point mutations, no SVs, no focal CNAs