



**Supplementary Figure 1.** Variant allele frequencies for somatic mutations. **A)** Matched diagnosis and remission sample pairs from 60 pediatric B-ALL patients were baited with target hybrid capture, Illumina sequenced and somatic mutations were identified. Patients are organized by those that eventually relapsed (on the left), and those that did not (on the right). Each box is shaded by the variant allele frequency of each mutation at diagnosis. **B)** Matched diagnosis, remission and relapse samples from 30 pediatric B-ALL patients were sequenced with targeted hybrid capture and somatic mutations were identified. Genes on the left are organized by functional class, and grouped by epigenetic regulators, signaling factors and others. Each box is shaded by the allele frequency of each mutation at diagnosis (on the left) and at relapse (on the right). Subclonal and undetectable mutations which had significant allele frequency (>15%) in the matched leukemia samples are indicated by lighter shades of blue and empty boxes.

**Supplementary Table 1: Genes included in epigenetic custom capture baitset**

AADAT	AANAT	AIRE	AKAP1	AKT1	ALG13	ARID1A	ARID1B
ARID2	ARID4A	ARID4B	AS3MT	ASF1A	ASF1B	ASH1L	ASH2L
ASXL1	ASXL2	ASXL3	ATAD2	ATAD2B	ATF7IP	ATRX	AURKA
AURKB	AURKC	BAZ1A	BAZ1B	BAZ2A	BAZ2B	BHMT	BLNK
BMI1	BPTF	BRD1	BRD2	BRD3	BRD4	BRD7	BRD8
BRD9	BRDT	BRPF1	BRPF3	BRWD1	BRWD3	C14orf106	C14orf169
C14orf43	C16orf53	C20orf20	C2orf60	CARM1	CBL	CBX1	CBX2
CBX3	CBX4	CBX5	CBX6	CBX7	CBX8	CCBL2	CDC73
CDKN2A	CDYL	CDYL2	CEBPA	CECR2	CHAF1A	CHAF1B	CHD1
CHD1L	CHD2	CHD3	CHD4	CHD5	CHD6	CHD7	CHD8
CHD9	CHMP1B	CHMP2A	CHMP4B	CHMP4C	CHMP5	CHRA1	CLOCK
COQ3	CRAMP1L	CREBBP	CRLF2	CSNK2A1	CTCF	CTR9	CXXC1
DIDO1	DMAP1	DNAJC1	DNAJC2	DNMT1	DNMT3A	DNMT3B	DNMT3L
DOT1L	DPF1	DPF2	DPF3	DPY30	EBF1	EDF1	EED
EHMT1	EHMT2	ELP3	EP300	EP400	EPC1	EPC2	ETV6
EZH1	EZH2	FBXL19	FBXO11	FBXW7	FLT3	FOS	G2E3
GAMT	GART	GATAD2A	GSG2	GTF3C4	HAT1	HDAC1	HDAC10
HDAC11	HDAC2	HDAC3	HDAC4	HDAC5	HDAC6	HDAC7	HDAC8
HDAC9	HELLS	HEMK1	HIF1AN	HIRA	HLTF	HMGA1	HMGN3
HMGN5	HR	HSPBAP1	HUWE1	IDH1	IDH2	IKZF1	IKZF2
IKZF3	ING1	ING2	ING3	ING4	ING5	INO80	INTS12
JAK1	JAK2	JAK3	JARID2	JHDM1D	JMJD1C	JMJD4	JMJD5
JMJD6	JMJD7	JMJD8	KAT2A	KAT2B	KAT5	KCNN3	KDM1A
KDM1B	KDM2A	KDM2B	KDM3A	KDM3B	KDM4A	KDM4B	KDM4C
KDM4D	KDM4DL	KDM5A	KDM5B	KDM5C	KDM5D	KDM6A	KDM6B
KIT	KRAS	LBR	LCMT1	LEF1	LEO1	LIN28	LMO2
MAP3K12	MBD1	MBD2	MBD3	MBD4	MBD5	MBD6	MECOM
MECP2	MEN1	METTL1	METTL8	MGMT	MIER1	MIER2	MIER3
MINA	MLL	MLL2	MLL3	MLL4	MLL5	MLLT1	MLLT10
MLLT3	MLLT6	MORF4L1	MPHOSPH8	MSH6	MSL3	MST1	MTA1
MTA2	MTA3	MTF2	MYSM1	MYST1	MYST2	MYST3	MYST4
N6AMT1	N6AMT2	NAP1L1	NAP1L2	NAP1L3	NAP1L4	NAP1L5	NCOA3
NCOR1	NCOR2	NNMT	NOC2L	NOTCH1	NPM1	NPTXR	NRAS
NSD1	NSUN2	NSUN5	PADI4	PAF1	PAXIP1	PBRM1	PCGF1
PCGF2	PCGF6	PCMT1	PDC	PEMT	PHB	PHC2	PHC3
PHF1	PHF10	PHF11	PHF12	PHF13	PHF14	PHF15	PHF16
PHF17	PHF19	PHF2	PHF20	PHF20L1	PHF21A	PHF21B	PHF23
PHF3	PHF6	PHF7	PHF8	PHIP	PHRF1	PICK1	PML
PNMT	POLR2A	PPARG	PPARGC1A	PRDM1	PRDM10	PRDM11	PRDM12
PRDM13	PRDM14	PRDM15	PRDM16	PRDM2	PRDM4	PRDM5	PRDM6
PRDM7	PRDM8	PRDM9	PRMT1	PRMT2	PRMT3	PRMT5	PRMT6

PRMT7	PRMT8	PTEN	PWWP2B	PYGO1	PYGO2	RAI1	RB1
RBBP5	RBM14	RCOR1	RCOR2	RCOR3	RERE	RING1	RNF17
RNF2	RNF20	RNF40	RNMT	RPS6KA5	RRP8	RSF1	RUNX1
SAP18	SAT1	SATB1	SATB2	SET	SETD1A	SETD1B	SETD2
SETD3	SETD4	SETD5	SETD6	SETD7	SETD8	SETDB1	SETDB2
SETMAR	SHPRH	SIN3A	SIN3B	SIRT1	SIRT2	SIRT3	SIRT4
SIRT5	SIRT6	SIRT7	SMARCA1	SMARCA2	SMARCA4	SMARCA5	SMARCAD1
SMARCAL1	SMARCB1	SMARCC1	SMARCC2	SMARCD1	SMARCD2	SMARCD3	SMARCE1
SMC1A	SMC1B	SMC2	SMC3	SMC4	SMN1	SMNDC1	SMYD1
SMYD2	SMYD3	SMYD4	SMYD5	SND1	SP100	SP110	SP140
SP140L	SRCAP	STK31	SUDS3	SUPT7L	SUV39H1	SUV39H2	SUV420H1
SUV420H2	SUZ12	TADA2A	TADA2B	TAF1	TAF1L	TAF3	TAF5
TAF6L	TAF8	TCF20	TDRD1	TDRD3	TDRD5	TDRD6	TDRD7
TDRD9	TDRKH	TERF2	TET1	TET2	TET3	TGFB1	TP53
TPMT	TRAF7	TRDMT1	TRERF1	TRIM24	TRIM28	TRIM33	TRIM66
TRMT2B	TTF1	UBE2A	UBE2B	UBE2E1	UBE2I	UBE2N	UBE2V1
UBR7	UHRF1	UHRF2	UTY	WBSR22	WDR5	WDR82	WHSC1
WHSC1L1	WT1	YEATS2	YEATS4	ZCWPW1	ZMYND11	ZMYND8	ZNF541

## Supplementary Table 2: Patient Characteristics

### Patient Information (Hybrid Capture)

Patient ID	Treatment Protocol	Age	Sex	immuno	WBC @ dx	CNS @ Dx	initial risk	final risk	relapse	Time to Relapse (yrs)	Bone Marrow Relapse	CNS Relapse	Testis Relapse	status	Primary abnormality
ALL5006	DFCI 05-001	5.7	M	B-cell	5.1	CNS 1	SR	SR	No					Alive	non-informative
ALL5012	DFCI 05-001	11.8	M	B-cell	2.5	CNS 1	HR	HR	No					Alive	tetraploidy 21
ALL5028	DFCI 05-001	13.8	F	B-cell	1.5	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL5035	DFCI 05-001	12.7	M	B-cell	7.5	CNS 2	HR	HR	No					Alive	non-informative
ALL5044	DFCI 05-001	8.5	M	B-cell	4.8	CNS 1	SR	SR	Yes	1.5	Yes			Dead	non-informative
ALL5046	DFCI 05-001	16.7	F	B-cell	27.6	CNS 1	HR	HR	Yes	3.4	Yes			Alive	non-informative
ALL5052	DFCI 05-001	5.8	F	B-cell	13.9	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5058	DFCI 05-001	4.6	M	B-cell	2.6	CNS 1	SR	SR	No					Alive	9p deletion
ALL5067	DFCI 05-001	9.5	M	B-cell	9.5	CNS 1	SR	VHR	No					Alive	t(4;14)
ALL5091	DFCI 05-001	10.0	M	B-cell	44	Traumatic	HR	HR	No					Alive	dic(9;12)
ALL5093	DFCI 05-001	6.1	F	B-cell	5.7	CNS 1	SR	VHR	Yes	2.4	Yes			Dead	iAMP21
ALL5094	DFCI 05-001	7.3	F	B-cell	1.7	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5095	DFCI 05-001	2.6	M	B-cell	120	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL5096	DFCI 05-001	11.8	F	B-cell	30	CNS 1	HR	HR	No					Alive	ETV6-RUNX1
ALL5099	DFCI 05-001	17.0	F	B-cell	43.6	CNS 1	HR	HR	Yes	2.9	Yes			Dead	t(3;16)
ALL5100	DFCI 05-001	8.3	F	B-cell	6.8	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL5101	DFCI 05-001	16.1	M	B-cell	1.3	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL5103	DFCI 05-001	2.7	M	B-cell	22.1	CNS 1	SR	SR	No					Alive	non-informative
ALL5104	DFCI 05-001	3.9	M	B-cell	5.6	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL5113	DFCI 05-001	5.6	M	T-cell	20.8	CNS 1	HR	HR	No					Alive	near tetraploidy
ALL5114	DFCI 05-001	13.9	M	B-cell	14.7	CNS 1	HR	HR	No					Alive	non-informative
ALL5115	DFCI 05-001	2.8	F	B-cell	17.2	CNS 2	SR	VHR	No					Alive	non-informative
ALL5116	DFCI 05-001	3.5	M	B-cell	9.1	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5117	DFCI 05-001	1.4	F	B-cell	23.4	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5120	DFCI 05-001	8.5	M	B-cell	14.6	Traumatic	HR	HR	Yes	4.0	Yes	Yes		Alive	Hyperdiploidy > 50
ALL5121	DFCI 05-001	3.2	F	B-cell	2.9	Traumatic	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5125	DFCI 05-001	7.2	F	B-cell	2.4	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5128	DFCI 05-001	4.0	M	B-cell	3	CNS 1	SR	SR	Yes	2.6	Yes			Alive	Hyperdiploidy > 50
ALL5133	DFCI 05-001	10.4	F	B-cell	3.3	CNS 1	HR	HR	No					Alive	trisomy 9
ALL5134	DFCI 05-001	6.2	F	B-cell	3.1	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5140	DFCI 05-001	2.4	M	B-cell	29.8	CNS 2	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5143	DFCI 05-001	1.1	F	B-cell	3	Traumatic	SR	SR	No					Alive	non-informative
ALL5154	DFCI 05-001	8.5	F	B-cell	8.1	CNS 1	SR	VHR	Yes	3.2	Yes			Dead	non-informative
ALL5159	DFCI 05-001	1.5	M	B-cell	89	Traumatic	HR	HR	Yes	2.7	Yes		Yes	Alive	12p deletion
ALL5186	DFCI 05-001	2.5	M	B-cell	8.5	CNS 1	SR	VHR	Yes	2.8	Yes			Dead	non-informative
ALL5188	DFCI 05-001	15.0	M	B-cell	130	CNS 1	HR	VHR	Yes	3.8	Yes	Yes		Alive	pseudodiploid
ALL5201	DFCI 05-001	5.2	F	B-cell	5.3	CNS 2	SR	SR	Yes	3.9	Yes			Alive	iAMP21

**Patient Information (Hybrid Capture)**

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ALL5226	DFCI 05-001	11.7	M	B-cell	3.2	CNS 1	HR	HR	Yes	2.9	Yes			Alive	Hyperdiploidy > 50
ALL5277	DFCI 05-001	1.9	F	B-cell	87.8	CNS 1	HR	VHR	Yes	3.5	Yes			Alive	non-informative
ALL5300	DFCI 05-001	17.9	M	B-cell	257	CNS 2	HR	HR	Yes	2.5	Yes			Alive	Hyperdiploidy (47_50)
ALL5316	DFCI 05-001	8.2	M	B-cell	3.3	CNS 1	SR	SR	Yes	0.6	Yes			Dead	9p deletion
ALL5322	DFCI 05-001	4.6	M	B-cell	59.2	CNS 1	HR	HR	Yes	3.0	Yes			Alive	Hyperdiploidy > 50
ALL5380	DFCI 05-001	3.2	M	B-cell	29.7	CNS 1	SR	VHR	Yes	2.0	Yes	Yes		Dead	Hypodiploidy < 45
ALL5382	DFCI 05-001	2.3	F	B-cell	59.3	CNS 1	HR	VHR	Yes	0.4	Yes			Dead	MLL rearrangement
ALL5447	DFCI 05-001	4.1	F	B-cell	41.1	CNS 1	SR	VHR	Yes	2.2	Yes			Dead	Hyperdiploidy > 50
ALL5537	DFCI 05-001	11.6	F	B-cell	363.8	CNS 1	HR	HR	Yes	1.3	Yes	Yes		Dead	9p deletion
ALL6001	AIEOP-R2006	6.6	M	B-cell	158.0	Positive	HR	HR2*	Yes	1.7	Yes			Dead	MLL rearrangement
ALL6002	AIEOP-2000	6.3	F	B-cell	2.4	Negative	MR	MR2	Yes	3.8		Yes		Alive	non-informative
ALL6003	AIEOP-R2006	16.0	F	B-cell	263.0	Negative	HR	HR2	Yes	0.6	Yes			Dead	MLL rearrangement
ALL6004	AIEOP-2000	15.1	F	B-cell	10.9	Negative	MR	MR2	Yes	1.3	Yes			Alive	t(1;12)(q21;p13)
ALL6005	AIEOP-2000	3.8	M	B-cell	30.2	Negative	MR	HR2	Yes	1.8	Yes			Dead	non-informative
ALL6007	AIEOP-R2006	7.5	F	B-cell	7.9	Negative	MR	MR2	Yes	3.0	Yes			Alive	non-informative
ALL6008	AIEOP-2000	3.0	M	B-cell	106.0	Negative	HR	HR	Yes	0.3	Yes			Dead	BCR-ABL
ALL6010	AIEOP-R2006	3.8	F	B-cell	12.5	Negative	HR	HR	Yes	0.4	Yes			Dead	non-informative
ALL6011	AIEOP-2000	12.3	M	B-cell	37.5	Negative	MR	MR1	Yes	3.6	Yes	Yes		Dead	non-informative
ALL6012	AIEOP-2000	12.6	F	B-cell	27.8	Negative	HR	HR2	Yes	2.3	Yes			Dead	non-informative
ALL6013	AIEOP-R2006	10.0	M	B-cell	2.5	Negative	MR	MR1	Yes	3.3	Yes			Alive	non-informative
ALL6014	AIEOP-R2006	1.4	M	B-cell	25.3	Negative	HR	HR2	Yes	1.0	Yes			Alive	non-informative
ALL6015	AIEOP-2000	1.4	M	B-cell	72.7	Negative	MR	MR1	Yes	1.3	Yes			Dead	t(1;19)
ALL6016	INTERFANT99	0.3	F	B-cell	121.0	Negative	HR	HR	Yes	2.3	Yes	Yes		Alive	non-informative

## Patient Information (Amplicon sequencing)

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ALL0007001	DFCI 00-001	13.1	M	B cell	556.5	CNS 1	HR	HR	No					Dead	BCR-ABL
ALL0008002	DFCI 00-001	1.9	F	B cell	6.2	CNS 2	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0011003	DFCI 00-001	1.9	F	B cell	7.7	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0017004	DFCI 00-001	3.3	F	B cell	4.7	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0018005	DFCI 00-001	10.4	M	T cell	36.8	CNS 1	HR	HR	No					Alive	MLL rearrangement
ALL0021006	DFCI 00-001	15.7	M	B cell	216	CNS 1	HR	HR	Yes	0.3	Yes	No	No	Dead	non-informative
ALL0022007	DFCI 00-001	14.1	M	B cell	4.1	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL0023008	DFCI 00-001	5.6	F	B cell	9.1	CNS 1	SR	SR	No					Alive	Hyperdiploidy
ALL0025009	DFCI 00-001	2.2	M	B cell	9.8	CNS 2	SR	SR	No					Alive	ETV6-RUNX1
ALL0031010	DFCI 00-001	4.0	F	B cell	228.9	CNS 2	HR	HR	No					Alive	non-informative
ALL0032011	DFCI 00-001	9.4	F	B cell	4.4	CNS 2	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0033012	DFCI 00-001	14.6	F	B cell	22.4	CNS 1	HR	HR	No					Alive	Hyperdiploidy
ALL0036013	DFCI 00-001	3.3	F	B cell	11.5	CNS 2	SR	SR	Yes	2.4	Yes	No	No	Dead	MLL rearrangement
ALL0038014	DFCI 00-001	14.8	F	B cell	2.4	CNS 1	HR	HR	No					Alive	iAMP21
ALL0045015	DFCI 00-001	4.6	F	T cell	20.6	CNS 1	HR	HR	No					Dead	non-informative
ALL0053016	DFCI 00-001	1.8	M	B cell	23.7	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0054017	DFCI 00-001	4.2	M	B cell	4.2	CNS 1	SR	SR	No					Dead	non-informative
ALL0055018	DFCI 00-001	14.0	F	B cell	2.3	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL0057019	DFCI 00-001	15.6	F	B cell	20.7	CNS 1	HR	HR	Yes	0.5	Yes	No	No	Dead	t(17;19)
ALL0059020	DFCI 00-001	5.3	F	B cell	23.5	N/A	SR	SR	No					Alive	non-informative
ALL0060021	DFCI 00-001	10.4	F	B cell	5	CNS 1	HR	HR	No					Alive	add 21(q22)
ALL0061022	DFCI 00-001	2.6	F	B cell	14.4	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0066023	DFCI 00-001	7.9	M	T cell	98.6	CNS 1	HR	HR	Yes	3.6	Yes	No	No	Alive	non-informative
ALL0067024	DFCI 00-001	3.5	M	B cell	9.1	CNS 1	SR	SR	No					Alive	non-informative
ALL0070025	DFCI 00-001	14.4	M	B cell	137.5	CNS 2	HR	HR	No					Alive	t(1;19)
ALL0071026	DFCI 00-001	12.8	M	B cell	194.1	CNS 1	HR	HR	Yes	2.5	Yes	No	No	Alive	ABL x 3 copies
ALL0073027	DFCI 00-001	4.8	M	B cell	127	CNS 2	HR	HR	No					Alive	ETV6-RUNX1
ALL0074028	DFCI 00-001	14.9	F	B cell	108	CNS 1	HR	HR	Yes	2.5	Yes	Yes	No	Alive	del 20(q13.1q13.3)
ALL0078029	DFCI 00-001	6.2	M	B cell	4.6	CNS 1	SR	SR	No					Alive	near triploidy
ALL0081030	DFCI 00-001	3.8	M	B cell	15.2	CNS 2	SR	SR	No					Alive	t(1;19)
ALL0082031	DFCI 00-001	10.0	F	B cell	3	CNS 1	HR	HR	Yes	4.6	No	No	No	Dead	non-informative
ALL0083032	DFCI 00-001	3.9	M	B cell	12.2	CNS 1	SR	SR	No					Alive	non-informative
ALL0086033	DFCI 00-001	2.4	M	B cell	6.2	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0087034	DFCI 00-001	1.6	M	B cell	74.7	CNS 1	HR	HR	No					Alive	Hyperdiploidy < 50
ALL0091035	DFCI 00-001	3.7	M	B cell	13.6	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0095036	DFCI 00-001	4.2	F	B cell	19.3	CNS 1	SR	SR	No					Alive	t(1;19)
ALL0096037	DFCI 00-001	2.4	F	B cell	18.3	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0097038	DFCI 00-001	9.2	M	B cell	2.3	CNS 1	SR	SR	No					Alive	non-informative

**Patient Information (Amplicon sequencing)**

Patient ID	Treatment Protocol	Age	Sex	immuno	WBC @ dx	CNS @ Dx	initial risk	final risk	relapse	Time to Relapse (yrs)	Bone Marrow Relapse	CNS Relapse	Testis Relapse	status	Primary abnormality	
ALL0100039	DFCI 00-001	1.9	M	B cell	44.2	CNS 1	SR	SR	Yes	3.8	No	Yes	No	Alive	ETV6-RUNX1	
ALL0101040	DFCI 00-001	6.1	M	B cell	3.5	CNS 2	SR	SR	Yes	2.6	Yes	Yes	No	Dead	iAMP21	
ALL0102041	DFCI 00-001	8.7	F	B cell	16.6	CNS 1	SR	SR	No					Alive	t(1;19)	
ALL0103042	DFCI 00-001	1.8	M	B cell	4.8	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0104043	DFCI 00-001	6.8	M	B cell	29.6	CNS 1	SR	SR	Yes	3.5	No	Yes	No	Alive	MLL rearrangement	
ALL0106044	DFCI 00-001	12.0	M	B cell	9.4	CNS 1	HR	HR	No					Alive	non-informative	
ALL0109045	DFCI 00-001	2.7	M	B cell	32.5	CNS 2	SR	SR	No					Alive	non-informative	
ALL0111046	DFCI 00-001	6.7	F	B cell	4.5	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0113047	DFCI 00-001	5.2	F	B cell	23.7	CNS 1	SR	SR	No					Alive	ETV6-RUNX1	
ALL0114048	DFCI 00-001	1.5	F	B cell	50.1	CNS 1	HR	HR	No					Alive	non-informative	
ALL0115049	DFCI 00-001	3.3	F	B cell	57.3	CNS 1	HR	HR	Yes	3.3	Yes	No	No	Dead	Hyperdiploidy > 50	
ALL0130050	DFCI 00-001	5.4	M	T cell	15.9	CNS 1	HR	HR	Yes	0.9	Yes	No	No	Dead	Hyperdiploidy < 50	
ALL0141051	DFCI 00-001	6.4	M	B cell	27.5	CNS 1	SR	SR	Yes	2.9	Yes	Yes	No	Alive	iAMP21	
ALL0153052	DFCI 00-001	2.0	M	B cell	12.7	CNS 1	SR	SR	Yes	2.3	Yes	No	No	Alive	Hyperdiploidy > 50	
ALL0161053	DFCI 00-001	7.4	F	B cell	18.6	CNS 1	SR	SR	Yes	3.3	Yes	No	No	Alive	Hyperdiploidy < 50	
ALL0166054	DFCI 00-001	1.8	M	B cell	13.3	CNS 1	SR	SR	Yes	5.3	Yes	No	No	Dead	Hyperdiploidy > 50	
ALL0171055	DFCI 00-001	4.4	F	B cell	3.4	CNS 1	SR	SR	Yes	5.1	Yes	Yes	No	Alive	Hyperdiploidy	
ALL0176056	DFCI 00-001	6.4	M	B cell	320.7	CNS 1	HR	HR	Yes	1.5	Yes	No	No	Alive	BCR-ABL	
ALL0179057	DFCI 00-001	13.7	M	B cell	1.2	CNS 1	HR	HR	Yes	1.5	Yes	Yes	No	Dead	non-informative	
ALL0181058	DFCI 00-001	3.3	F	B cell	85.6	CNS 1	HR	HR	No					Alive	t(1;19)	
ALL0182059	DFCI 00-001	Not available														
ALL0183060	DFCI 00-001	2.4	F	B cell	12.5	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0185061	DFCI 00-001	11.7	F	B cell	5.2	CNS 1	HR	HR	No					Alive	non-informative	
ALL0186062	DFCI 00-001	3.4	M	B cell	140.3	CNS 1	HR	HR	Yes	2.7	No	Yes	No	Alive	ETV6-RUNX1	
ALL0187063	DFCI 00-001	9.6	F	B cell	3	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0190064	DFCI 00-001	7.0	F	B cell	2.6	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0192065	DFCI 00-001	2.9	M	B cell	5.8	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0193066	DFCI 00-001	1.4	F	B cell	10.3	CNS 1	SR	SR	No					Alive	non-informative	
ALL0195067	DFCI 00-001	14.2	M	B cell	2	CNS 1	HR	HR	No					Alive	non-informative	
ALL0196068	DFCI 00-001	1.3	F	B cell	92.9	CNS 1	HR	HR	Yes	3.5	Yes	No	No	Alive	MLL rearrangement	
ALL0197069	DFCI 00-001	2.7	M	B cell	4	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50	
ALL0199070	DFCI 00-001	2.3	M	B cell	2.5	CNS 1	SR	SR	No					Alive	ETV6-RUNX1	
ALL0200071	DFCI 00-001	2.7	F	B cell	99.1	CNS 1	HR	HR	No					Alive	non-informative	
ALL0210072	DFCI 00-001	8.5	M	B cell	14.8	CNS 1	SR	SR	Yes	5.4	Yes	No	No	Alive	12p rearrangement	
ALL0215073	DFCI 00-001	1.0	M	B cell	31.7	CNS 1	SR	SR	No					Alive	non-informative	
ALL0217074	DFCI 00-001	7.9	M	B cell	21.2	CNS 1	SR	SR	Yes	3.9	Yes	No	Yes	Alive	near tetraploidy	
ALL0221075	DFCI 00-001	3.8	F	B cell	20.3	CNS 1	SR	SR	No					Alive	ETV6-RUNX1	
ALL0222076	DFCI 00-001	4.3	M	B cell	125.9	CNS 1	HR	HR	No					Alive	ETV6-RUNX1	

**Patient Information (Amplicon sequencing)**

Patient ID	Treatment Protocol	Age	Sex	immuno	WBC @ dx	CNS @ Dx	initial risk	final risk	relapse	Time to Relapse (yrs)	Bone Marrow Relapse	CNS Relapse	Testis Relapse	status	Primary abnormality
ALL0225077	DFCI 00-001	11.6	M	B cell	2	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL0226078	DFCI 00-001	4.7	F	B cell	6.6	CNS 1	SR	SR	No					Alive	non-informative
ALL0227079	DFCI 00-001	8.8	F	B cell	6.3	CNS 1	SR	HR	Yes	5.6	Yes	No	No	Alive	BCR-ABL
ALL0228080	DFCI 00-001	3.9	F	B cell	6.6	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0229081	DFCI 00-001	14.6	F	B cell	54	CNS 1	HR	HR	No					Alive	7p deletion
ALL0231082	DFCI 00-001	6.7	M	B cell	3.9	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL0234083	DFCI 00-001	4.4	M	B cell	5	CNS 1	SR	SR	No					Alive	non-informative
ALL0235084	DFCI 00-001	4.5	M	B cell	4.1	CNS 1	SR	SR	Yes	1.5	Yes	No	No	Dead	non-informative
ALL0236085	DFCI 00-001	4.3	F	B cell	10.6	CNS 1	SR	SR	No					Alive	Hyperdiploidy < 50
ALL0237086	DFCI 00-001	4.0	F	B cell	86.1	CNS 2	HR	HR	No					Alive	ETV6-RUNX1
ALL0242087	DFCI 00-001	4.3	F	B cell	48.8	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0244088	DFCI 00-001	5.4	M	B cell	5.1	CNS 1	SR	SR	Yes	3.4	Yes	Yes	No	Alive	ETV6-RUNX1
ALL0249089	DFCI 00-001	4.8	F	B cell	3.7	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL0255090	DFCI 00-001	13.3	F	B cell	12.1	CNS 1	HR	HR	No					Alive	9p abnormality
ALL0262091	DFCI 00-001	12.6	M	Other	592	CNS 1	HR	HR	No					Alive	non-informative
ALL0266092	DFCI 00-001	12.8	F	B cell	11.4	CNS 1	HR	HR	No					Alive	non-informative
ALL0267093	DFCI 00-001	12.9	M	B cell	48.8	CNS 1	HR	HR	Yes	2.9	Yes	No	No	Alive	Trisomy 5
ALL0269094	DFCI 00-001	1.8	F	B cell	72	CNS 1	HR	HR	No					Alive	9p abnormality
ALL0273095	DFCI 00-001	4.7	F	B cell	34.8	CNS 1	SR	SR	No					Alive	non-informative
ALL0284096	DFCI 00-001	15.2	M	B cell	4.5	CNS 1	HR	HR	Yes	0.9	Yes	No	No	Dead	non-informative
ALL0287097	DFCI 00-001	17.5	M	B cell	138.3	CNS 1	HR	HR	No					Alive	BCR-ABL
ALL0288098	DFCI 00-001	5.9	F	B cell	18.9	CNS 1	SR	SR	No					Alive	t(1;19)
ALL0290099	DFCI 00-001	6.6	M	B cell	2.7	CNS 1	SR	SR	Yes	3.2	Yes	Yes	No	Alive	Hyperdiploidy > 50
ALL0291100	DFCI 00-001	3.9	M	B cell	81.5	CNS 3	HR	HR	No					Alive	t(9;20)
ALL0326101	DFCI 00-001	9.3	F	B cell	5.4	CNS 1	SR	SR	Yes	3.2	Yes	Yes	No	Alive	iAMP21
ALL0357102	DFCI 00-001	16.3	M	B cell	373	CNS 1	HR	HR	Yes	0.5	Yes		No	Alive	MLL rearrangement
ALL0359103	DFCI 00-001	12.0	F	B cell	4.4	CNS 1	HR	HR	Yes	1.5	Yes	No	No	Dead	t(17;19)
ALL0365104	DFCI 00-001	10.1	M	B cell	2.8	CNS 1	HR	HR	Yes	2.9	Yes	No	No	Alive	non-informative
ALL0418105	DFCI 00-001	2.6	M	B cell	45.6	CNS 1	SR	SR	Yes	1.8	Yes	Yes	No	Dead	ETV6-RUNX1
ALL0433106	DFCI 00-001	2.0	F	B cell	7.8	CNS 2	SR	SR	Yes	3.5	Yes	Yes	No	Alive	Hyperdiploidy > 50
ALL0452107	DFCI 00-001	10.7	M	T cell	156.3	CNS 1	HR	HR	Yes	0.7	Yes	No	No	Dead	non-informative
ALL0476108	DFCI 00-001	13.5	M	B cell	4.5	CNS 1	HR	HR	Yes	2.7	Yes	No	Yes	Alive	12p deletion
ALL5015109	DFCI 05-001	3.7	M	B-cell	726.3	CNS 2	HR	0	No					Dead	MLL rearrangement
ALL5116110	DFCI 05-001	3.5	M	B-cell	9.1	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5117111	DFCI 05-001	1.4	F	B-cell	23.4	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5121112	DFCI 05-001	3.2	F	B-cell	2.9	Traumatic	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5133113	DFCI 05-001	10.4	F	B-cell	3.3	CNS 1	HR	HR	No					Alive	trisomy 9
ALL5134114	DFCI 05-001	6.2	F	B-cell	3.1	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50



**Patient Information (Amplicon sequencing)**

Patient ID	Treatment Protocol	Age	Sex	immuno	WBC @ dx	CNS @ Dx	initial risk	final risk	relapse	Time to Relapse (yrs)	Bone Marrow Relapse	CNS Relapse	Testis Relapse	status	Primary abnormality
ALL5142115	DFCI 05-001	2.4	M	B-cell	0.8	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5143116	DFCI 05-001	1.1	F	B-cell	3	Traumatic	SR	SR	No					Alive	non-informative
ALL5150117	DFCI 05-001	5.1	F	B-cell	8.9	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL5151118	DFCI 05-001	2.9	M	B-cell	23.4	CNS 1	SR	SR	No					Alive	non-informative
ALL5157119	DFCI 05-001	14.0	F	B-cell	14.3	CNS 1	HR	HR	No					Alive	non-informative
ALL5161120	DFCI 05-001	3.2	M	B-cell	5.4	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL5175121	DFCI 05-001	17.2	F	B-cell	14.9	CNS 3	HR	HR	No					Alive	9p del
ALL5183122	DFCI 05-001	3.5	M	B-cell	17.6	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50
ALL5190123	DFCI 05-001	6.0	F	B-cell	2.3	CNS 1	SR	SR	No					Alive	ETV6-RUNX1
ALL5195124	DFCI 05-001	15.0	F	B-cell	3.5	CNS 1	HR	HR	No					Alive	Hyperdiploidy > 50
ALL5210125	DFCI 05-001	2.3	M	B-cell	3.3	CNS 1	SR	SR	No					Alive	Hyperdiploidy > 50

**Supplementary Table 3: Mutations by Genetic Subtype of ALL**

**All Sequencing**

	<b>BCR-ABL</b>	<b>MLL</b>	<b>HYPO</b>	<b>iAMP21</b>	<b>ETV6/RUNX1</b>	<b>HYPER</b>	<b>NI</b>	<b>Total</b>
# Cases	5	9	1	6	23	54	87	185
% of cohort	3%	5%	1%	3%	12%	29%	47%	
<b>SETD2</b>	1 (20%)	2 (22%)		1 (16%)	3 (13%)	4 (7%)	8 (9%)	19 (10%)
<b>KRAS</b>		1 (11%)		2 (33%)	1 (4%)	8 (14%)	16 (18%)	28 (15%)
<b>NRAS</b>		1 (11%)	1 (100%)			12 (22%)	12 (13%)	26 (14%)
<b>FLT3</b>		1 (11%)			1 (4%)	7 (12%)	2 (2%)	11 (5%)
<b>JAK2</b>		1 (11%)				3 (5%)	3 (3%)	7 (3%)
<b>TP53</b>		1 (11%)				1 (1%)	7 (8%)	9 (4%)
<b>CDKN2A</b>					4 (17%)			4 (2%)

**Hybrid Capture Sequencing**

	<b>BCR-ABL</b>	<b>MLL</b>	<b>HYPO</b>	<b>iAMP21</b>	<b>ETV6/RUNX1</b>	<b>HYPER</b>	<b>NI</b>	<b>Total</b>
# Cases	1	3	1	2	3	17	33	60
% of cohort	2%	5%	2%	3%	5%	28%	55%	
<b>SETD2</b>				1 (50%)		1 (5%)	2 (6%)	4 (6%)
<b>KRAS</b>		1 (33%)				4 (23%)	7 (21%)	12 (20%)
<b>NRAS</b>		1 (33%)	1 (100%)			3 (17%)	6 (18%)	11 (18%)
<b>FLT3</b>						3 (17%)	1 (3%)	4 (6%)
<b>JAK2</b>						1 (5%)	2 (6%)	3 (5%)
<b>TP53</b>		1 (33%)						1 (1%)
<b>ATF7IP</b>							1 (3%)	1 (1%)
<b>BPTF</b>		1 (33%)						1 (1%)
<b>BRD8</b>		1 (33%)						1 (1%)
<b>BRPF1</b>						1 (5%)		1 (1%)
<b>CHD1</b>							1 (3%)	1 (1%)
<b>CHD7</b>							1 (3%)	1 (1%)
<b>CHD9</b>							1 (3%)	1 (1%)
<b>CREBBP</b>						5 (29%)	3 (9%)	8 (13%)
<b>EZH2</b>							1 (3%)	1 (1%)
<b>HUWE1</b>						1 (5%)		1 (1%)
<b>JHDM1D</b>				1 (50%)				1 (1%)

JMJD1C					1 (5%)		1 (1%)
KDM5C					1 (5%)		1 (1%)
KDM6A						2 (6%)	2 (3%)
MLL2						2 (6%)	2 (3%)
MSH6					1 (5%)	1 (3%)	2 (3%)
MTA1						1 (3%)	1 (1%)
PHF3						1 (3%)	1 (1%)
SETDB1						1 (3%)	1 (1%)
SRCAP						1 (3%)	1 (1%)
ZNF541	1 (33%)						1 (1%)
ETV6					1 (5%)		1 (1%)
IKZF1						2 (6%)	2 (3%)
RUNX1	1 (100%)						1 (1%)

#### Amplicon NGS Sequencing

	BCR-ABL	MLL	HYPO	iAMP21	ETV6/RUNX1	HYPER	NI	Total
# Cases	4	6	0	4	20	37	54	125
% of cohort	3%	5%	0%	3%	16%	30%	43%	
SETD2	1 (25%)	2 (33%)			3 (15%)	3 (8%)	6 (11%)	15 (12%)
KRAS				2 (50%)	1 (5%)	4 (10%)	9 (16%)	16 (12%)
NRAS						9 (24%)	6 (11%)	15 (12%)
PTPN11					1 (5%)	3 (8%)	3 (5%)	7 (5%)
FLT3		1 (16%)			1 (5%)	4 (10%)	1 (1%)	7 (5%)
JAK2		1 (16%)				2 (5%)	1 (1%)	4 (3%)
TP53						1 (2%)	7 (12%)	8 (6%)
CDKN2A					4 (20%)			4 (3%)

Mutations found at diagnosis or relapse, broken down by ALL genetic subtype. Subtype, total number of cases for each subtype and the percent of the total cohort is noted in the first three columns. For each gene, the number and percent of mutations for each gene is noted. Percentages are there for comparison purposes; however, for genetic subtypes with small numbers, this may not accurately reflect the frequency found in larger cohorts of patients. MLL: MLL rearranged, HYPO: Hypodiploidy, iAMP21: intrachromosomal amplification of chromosome 21, HYPER: Hyperdiploidy.

**Supplementary Table 4: Somatic mutations**

patient	chrom	pos_start	ref	var	gene	cdna	aa	result	dx AF	dx reads	rm AF	rm reads	rl AF	r1 reads
ALL5012	2	48033742	-	A	MSH6	c.3953_3954insA	p.R1318fs	frameshift insertion	0.45	169+138:+A	0.00	243+0:		
ALL5012	1	115258748	C	A	NRAS	c.G34T	p.G12C	nonsynonymous SNV	0.42	216+155:A	0.00	326+0:		
ALL5028	13	28602376	C	G	FLT3	c.G1992C	p.M664I	nonsynonymous SNV	0.49	51+49:G	0.00	77+0:		
ALL5028	X	53620346	C	T	HUWE1	c.G3719A	p.R1240H	nonsynonymous SNV	0.23	348+104:T	0.00	207+0:		
ALL5035	7	50367290	-	T	IKZF1	c.97_98insT	p.I33fs	frameshift insertion	0.40	135+90:+T	0.00	93+0:		
ALL5046	8	61732608	C	T	CHD7	c.C2656T	p.R886W	nonsynonymous SNV	0.52	60+65:T	0.00	211+0:	0.42	76+55:T
ALL5046	X	44929506	A	T	KDM6A	c.A2606T	p.D869V	nonsynonymous SNV	0.40	204+134:T	0.00	579+0:	0.47	323+291:T
ALL5058	12	25398281	C	T	KRAS	c.G38A	p.G13D	nonsynonymous SNV	0.45	277+225:T	0.01	438+3:T		
ALL5067	11	94759351	C	T	KDM4E	c.C630T	p.Y210Y	synonymous SNV	0.30	52+22:T	0.00	767+3:T		
ALL5067	1	115258748	C	A	NRAS	c.G34T	p.G12C	nonsynonymous SNV	0.24	65+20:A	0.00	800+3:A		
ALL5091	13	28592642	C	G	FLT3	c.G2503C	p.D835H	nonsynonymous SNV	0.55	407+499:G	0.00	1776+0:		
ALL5093	7	139819019	C	T	JHDM1D	c.1140-1G>A		splicing	0.00	355+0:	0.00	120+0:	0.23	204+61:T
ALL5095	16	3786761	A	C	CREBBP	c.T4450G	p.F1484V	nonsynonymous SNV	0.62	29+48:C	0.00	572+0:		
ALL5099	12	25380285	G	A	KRAS	c.C173T	p.T58I	nonsynonymous SNV	0.14	1707+283:A	0.00	765+0:	0.42	414+303:A
ALL5099	12	49442895	-	CC	MLL2	c.4013_4014insGG	p.T1338fs	frameshift insertion	0.05	206+10:+CC	0.00	89+0:	0.38	64+40:+CC
ALL5099	6	64356469	G	T	PHF3	c.G13T	p.D5Y	nonsynonymous SNV	0.20	1407+342:T	0.00	816+1:C	0.00	751+1:A
ALL5099	3				SETD2	whole gene		deletion	0.50				0.50	
ALL5099	3	47129621	-	AC	SETD2	c.5259_5260insGT	p.T1753fs	frameshift insertion	0.26	815+293:+AC	0.00	1016+2:T	0.00	533+0:
ALL5101	16	3788617	C	T	CREBBP	c.G4337A	p.R1446H	nonsynonymous SNV	0.34	475+246:T	0.00	406+0:		
ALL5101	12	25380275	T	G	KRAS	c.A183C	p.Q61H	nonsynonymous SNV	0.37	896+521:G	0.00	570+1:G		
ALL5113	14	105936286	G	A	MTA1	c.G1954A	p.D652N	nonsynonymous SNV	0.41	47+32:A	0.00	58+0:		
ALL5115	1	6169913	C	T	CHD5	c.G5520A	p.Q1840Q	synonymous SNV	0.37	40+23:T	0.00	59+0:		
ALL5115	12	25398284	C	T	KRAS	c.G35A	p.G12D	nonsynonymous SNV	0.16	322+61:T	0.00	634+0:		
ALL5115	1	150935161	G	A	SETDB1	c.G3257A	p.R1086Q	nonsynonymous SNV	0.23	207+61:A	0.00	464+0:		
ALL5117	12	25398281	C	T	KRAS	c.G38A	p.G13D	nonsynonymous SNV	0.26	910+314:T	0.00	590+0:		
ALL5120	2	160194152	T	C	BAZ2B	c.A5586G	p.L1862L	synonymous SNV	0.18	631+143:C	0.00	444+0:	0.00	297+0:
ALL5120	16	3786795	C	A	CREBBP	c.G4416T	p.W1472C	nonsynonymous SNV	0.00	532+0:	0.00	180+0:	0.30	90+39:A
ALL5120	1	115258748	C	A	NRAS	c.G34T	p.G12C	nonsynonymous SNV	0.31	659+296:T	0.00	309+0:	0.31	122+56:T
ALL5125	16	3786715	A	C	CREBBP	c.T4496G	p.L1499R	nonsynonymous SNV	0.39	387+246:C	0.00	452+0:		
ALL5125	1	115258748	C	A	NRAS	c.G34T	p.G12C	nonsynonymous SNV	0.41	505+356:A	0.00	519+1:G		
ALL5125	3	47164571	-	A	SETD2	c.1555_1556insT	p.K519_R520delinsX	stopgain SNV	0.37	494+297:+A	0.00	354+0:		
ALL5128	12	25398284	C	T	KRAS	c.G35A	p.G12D	nonsynonymous SNV	0.06	423+27:T	0.01	364+3:A	0.47	79+70:T
ALL5134	13	28592629	T	C	FLT3	c.A2516G	p.D839G	nonsynonymous SNV	0.18	199+44:C	0.00	591+0:		
ALL5143	12	14613656	C	T	ATF7IP	c.C2386T	p.Q796X	stopgain SNV	0.16	678+128:T	0.00	800+0:		
ALL5143	16	3789627	C	T	CREBBP	c.G4232A	p.G1411E	nonsynonymous SNV	0.16	369+69:T	0.00	530+0:		
ALL5159	9	5078362	A	T	JAK2	c.A2049T	p.R683S	nonsynonymous SNV	0.00	408+2:T	0.00	873+1:G	0.30	310+135:T
ALL5174	12	56558397	C	T	SMARCC2	c.G3258A	p.P1086P	synonymous SNV	0.00	62+0:	0.16	21+4:T	0.00	48+0:
ALL5186	1	115256530	G	T	NRAS	c.C181A	p.Q61K	nonsynonymous SNV	0.01	350+2:T	0.04	295+13:T	0.27	127+48:T
ALL5201	3	47144908	-	A	SETD2	c.4845_4846insT	p.I1615fs	frameshift insertion	0.00	402+1:G	0.00	220+0:	0.35	274+150:+A
ALL5226	13	28592640	A	C	FLT3	c.T2505G	p.D835E	nonsynonymous SNV	0.38	210+128:C	0.00	555+1:C	0.40	189+130:C
ALL5226	X	53222963	C	T	KDM5C	c.3907+1G>A		splicing	0.34	116+60:T	0.00	121+0:	0.45	77+65:T
ALL5277	5	98192283	G	C	CHD1	c.C4934G	p.S1645X	stopgain SNV	0.00	481+1:T	0.00	177+0:	0.35	247+135:C
ALL5277	12	25378559	T	C	KRAS	c.A439G	p.K147E	nonsynonymous SNV	0.00	113+0:	0.00	332+0:	0.61	69+109:C
ALL5300	9	5078362	A	T	JAK2	c.A2049T	p.R683S	nonsynonymous SNV	0.01	992+7:T	0.00	912+1:G	0.48	185+168:T

ALL5300	9	5078360	A	G	JAK2	c.A2047G	p.R683G	nonsynonymous SNV	0.23	758+228:G	0.00	916+0:	0.00	358+0:
ALL5300	12	25378562	C	T	KRAS	c.G436A	p.A146T	nonsynonymous SNV	0.00	918+3:T	0.00	829+1:A	0.39	268+168:T
ALL5322	3	9788110	G	A	BRPF1	c.G3433A	p.V1145I	nonsynonymous SNV	0.01	460+5:A	0.02	142+3:A	0.48	51+47:A
ALL5322	12	12006489	-	A	ETV6	c.457_458insA	p.E153fs	frameshift insertion	0.39	637+412:+A	0.02	288+7:+A	0.35	189+105:+A
ALL5322	1	115256530	G	T	NRAS	c.C181A	p.Q61K	nonsynonymous SNV	0.26	487+167:T	0.00	211+1:T	0.00	126+0:
ALL5380	1	115258747	C	A	NRAS	c.G35T	p.G12V	nonsynonymous SNV	0.43	48+36:A	0.00	234+0:	0.00	450+0:
ALL5382	12	25398284	C	T	KRAS	c.G35A	p.G12D	nonsynonymous SNV	0.28	420+167:T	0.00	1180+0:	0.38	130+78:T
ALL5382	2	231113658	C	A	SP140	c.C951A	p.L317L	synonymous SNV	0.29	190+77:A	0.00	1019+0:	0.44	110+88:A
ALL5447	16	3788641	-	C	CREBBP	c.4313_4314insG	p.H1438fs	frameshift insertion	0.00	180+0:	0.00	308+0:	0.44	52+44:+C
ALL5447	16	3788643	-	GG	CREBBP	c.4311_4312insCC	p.I1437fs	frameshift insertion	0.00	178+0:	0.00	318+0:	0.44	52+45:+GG
ALL5447	10	64953136	C	T	JMJD1C	c.G5831A	p.G1944E	nonsynonymous SNV	0.00	221+0:	0.00	669+0:	0.50	53+52:T
ALL5447	2	48028049	G	A	MSH6	c.G2927A	p.R976H	nonsynonymous SNV	0.00	402+0:	0.00	769+0:	0.21	143+38:A
ALL5537	7	50367315	C	A	IKZF1	c.C122A	p.S41X	stopgain SNV	0.50	78+79:A	0.03	32+1:A	0.25	131+43:A
ALL5537	9	5089726	C	A	JAK2	c.C2624A	p.T875N	nonsynonymous SNV	0.29	105+43:A	0.00	51+0:	0.21	139+38:A
ALL6001	17	65941578	G	T	BPTF	c.G7132T	p.D2378Y	nonsynonymous SNV	0.00	150+0:	0.00	196+0:	0.37	214+124:T
ALL6001	17	7577539	G	A	TP53	c.C346T	p.R116W	nonsynonymous SNV	0.00	27+0:	0.00	41+0:	0.93	1+27:A
ALL6001	19	48047555	C	T	ZNF541	c.G2231A	p.R744Q	nonsynonymous SNV	0.00	36+0:	0.00	49+0:	0.48	47+43:T
ALL6002	12	49449093	-	GG	MLL2	c.15_16insCC	p.K5fs	frameshift insertion	0.00	76+0:	0.00	133+0:	0.37	173+106:+GG
ALL6002	16	30723471	C	T	SRCAP	c.C1808T	p.T603M	nonsynonymous SNV	0.00	125+0:	0.01	180+1:T	0.45	183+151:T
ALL6003	5	137507753	C	A	BRD8	c.186+1G>T		splicing	0.60	14+21:A	0.00	60+0:	0.07	50+4:A
ALL6003	1	115258747	C	A	NRAS	c.G35T	p.G12V	nonsynonymous SNV	0.20	229+57:T	0.00	390+0:	0.00	139+0:
ALL6004	1	27101587	G	A	ARID1A	c.G4218A	p.S1406S	synonymous SNV	0.00	313+0:	0.00	312+0:	0.29	238+98:A
ALL6004	16	53279681	G	T	CHD9	c.G3373T	p.A1125S	nonsynonymous SNV	0.00	439+0:	0.00	371+0:	0.45	208+168:T
ALL6004	7	148526829	C	T	EZH2	c.G475A	p.G159R	nonsynonymous SNV	0.00	515+0:	0.01	336+4:A	0.21	228+59:T
ALL6004	12	25398206	-	CCT	KRAS	c.111+2->AGG		splicing	0.26	269+95:+CCT	0.00	245+0:	0.15	148+26:+CCT
ALL6005	X	44966777	G	C	KDM6A	c.G4001C	p.C1334S	nonsynonymous SNV	0.00	388+0:	0.00	134+0:	0.45	204+169:C
ALL6005	12	56558397	C	T	SMARCC2	c.G3258A	p.P1086P	synonymous SNV	0.49	17+17:T	-	-	0.63	12+20:T
ALL6005	6	46660002	C	T	TDRD6	c.C4137T	p.P1379P	synonymous SNV	0.00	660+0:	0.00	303+0:	0.28	395+150:T
ALL6007	16	3799627	C	T	CREBBP	c.3722+1G>A		splicing	0.26	103+37:T	0.00	106+0:	0.43	72+55:T
ALL6008	21	36171729	C	T	RUNX1	c.G755A	p.W252X	stopgain SNV	0.48	229+215:T	0.00	584+1:T	0.42	392+280:T
ALL6010	12	25398284	C	T	KRAS	c.G35A	p.G12D	nonsynonymous SNV	0.23	292+88:G	0.01	451+3:G	0.02	163+4:G
ALL6010	12	25398283	A	G	KRAS	c.T36C	p.G12G	synonymous SNV	0.24	297+92:G	0.00	455+2:G	0.02	162+4:G
ALL6011	1	115256528	T	G	NRAS	c.A183C	p.Q61H	nonsynonymous SNV	0.42	825+606:G	0.00	960+1:G	0.00	696+0:
ALL6012	1	115258747	C	A	NRAS	c.G35T	p.G12V	nonsynonymous SNV	0.16	965+179:T	0.00	560+0:	0.00	714+0:
ALL6012	3	47058642	T	A	SETD2	c.A7636T	p.K2546X	stopgain SNV	0.92	87+1006:A	0.00	402+1:A	0.83	147+706:A
ALL6013	12	25398284	C	T	KRAS	c.G35A	p.G12D	nonsynonymous SNV	0.18	254+59:T	0.02	112+2:T	0.00	157+0:
ALL6014	16	3786740	G	T	CREBBP	c.C4471A	p.Q1491K	nonsynonymous SNV	0.29	1235+499:T	0.00	472+0:	0.22	292+81:T
ALL6014	1	115258747	C	A	NRAS	c.G35T	p.G12V	nonsynonymous SNV	0.30	1236+540:T	0.01	515+4:T	0.12	328+46:T

Details of somatic mutations described in this study. dx AF, rm AF, rl AF: allele frequency of variant at diagnosis, remission or relapse. dx reads, rm reads, rl reads: reads depth supporting reference and variant: For example, 183+151:T means a total of 332 reads at this position, 183 support the reference base and 151 support the variant base T.

Supplementary Table 5-Amplicon sequencing primers

Forward Primer	Primer sequence	Reverse Primer	Primer sequence
CDKN2AEXON1_C_1_48.A	ACACTGACGACATGGTTCTACACGCCCGCACCTCCTCTACCC	CDKN2AEXON1_C_1_48.B	TACGGTAGCAGAGACTTGGTCTGGCTGGCTGGTCACCAGAGGG
CDKN2AEXON1_C_2_47.A	ACACTGACGACATGGTTCTACAAAACCTCGTCTCCAGAGTCGCC	CDKN2AEXON1_C_2_47.B	TACGGTAGCAGAGACTTGGTCTCTTCGGCTGACTGGCTGGC
CDKN2AEXON1_W_1_46.A	ACACTGACGACATGGTTCTACAGAGAGCAGGCAGCGGGCGGC	CDKN2AEXON1_W_1_46.B	TACGGTAGCAGAGACTTGGTCTCTGGATCGGCCTCCGACCGT
CDKN2AEXON1_W_2_45.A	ACACTGACGACATGGTTCTACACTGCTGGAGCGGGGGCGCT	CDKN2AEXON1_W_2_45.B	TACGGTAGCAGAGACTTGGTCTCCAGGAAGCTCCCTTTTTCCG
CDKN2AEXON2_C_1_44.A	ACACTGACGACATGGTTCTACATCGGGTGAGAGTGGCGGGGT	CDKN2AEXON2_C_1_44.B	TACGGTAGCAGAGACTTGGTCTTCTGCTTGGCGGTGAGGGGG
CDKN2AEXON2_C_2_43.A	ACACTGACGACATGGTTCTACACTCCTCAGCCAGGTCCACGGG	CDKN2AEXON2_C_2_43.B	TACGGTAGCAGAGACTTGGTCTGAGCTGCTGCTCACCAG
CDKN2AEXON2_C_3_42.A	ACACTGACGACATGGTTCTACAATTCTCAGATCATCAGTCTCACCTGAGGG	CDKN2AEXON2_C_3_42.B	TACGGTAGCAGAGACTTGGTCTGGGGCGCGGTGGACGTGCG
CDKN2AEXON2_C_4_41.A	ACACTGACGACATGGTTCTACAACCTCAGCCGCTCCACCGATTG	CDKN2AEXON2_C_4_41.B	TACGGTAGCAGAGACTTGGTCTAACCTATGCCGCATAGTCCGC
CDKN2AEXON2_W_1_40.A	ACACTGACGACATGGTTCTACATGGCTCTGACCATTTCTGTTCTCTGGC	CDKN2AEXON2_W_1_40.B	TACGGTAGCAGAGACTTGGTCTGGCCCGGTGCAGCACCA
CDKN2AEXON2_W_2_39.A	ACACTGACGACATGGTTCTACACCCGTGCACGACGCTGCCCG	CDKN2AEXON2_W_2_39.B	TACGGTAGCAGAGACTTGGTCTACTGCCTCTGGTCCCCCG
CDKN2AEXON2_W_3_38.A	ACACTGACGACATGGTTCTACACTGGCCATCGCATGTGCGC	CDKN2AEXON2_W_3_38.B	TACGGTAGCAGAGACTTGGTCTGGCTGAACCTTGTGCTGGAAAAATGAATG
CDKN2AEXON3_C_1_37.A	ACACTGACGACATGGTTCTACACAGTTGTGGCCCTGTAGGACCTTCG	CDKN2AEXON3_C_1_37.B	TACGGTAGCAGAGACTTGGTCTCCGGTAGGGACGGCAAGAGAGG
CDKN2AEXON3_C_2_36.A	ACACTGACGACATGGTTCTACAATATAAATGGACATTTACGGTAGTGGGGGA	CDKN2AEXON3_C_2_36.B	TACGGTAGCAGAGACTTGGTCTGAGAACTCGGAACTTAGATCATCA
CDKN2AEXON3_C_3_35.A	ACACTGACGACATGGTTCTACAAAATGCCACATGAATGTGCGCTTAGG	CDKN2AEXON3_C_3_35.B	TACGGTAGCAGAGACTTGGTCTGCTGCTTTTAACTAGATATATGCT
CDKN2AEXON3_W_1_34.A	ACACTGACGACATGGTTCTACATAACGCCTGTTTTCTTCTGCCCTCTGC	CDKN2AEXON3_W_1_34.B	TACGGTAGCAGAGACTTGGTCTTTTTAAAGCTCTATTTCTAAATGAAAA
CDKN2AEXON3_W_2_33.A	ACACTGACGACATGGTTCTACACCCCGCCACAACCCACCC	CDKN2AEXON3_W_2_33.B	TACGGTAGCAGAGACTTGGTCTGTGAAAGGCAGAAGCGGTGTTTTCTTT
FLT3EXON02_C_1_1.A	ACACTGACGACATGGTTCTACAAATCATTTGTTTATGATTGATTAACAC	FLT3EXON02_C_1_1.B	TACGGTAGCAGAGACTTGGTCTTTTGTGTTTGGTTGCAAGATAAT
FLT3EXON02_C_2_2.A	ACACTGACGACATGGTTCTACACCCATTTAGCCATGGTAGGCTTCAATACT	FLT3EXON02_C_2_2.B	TACGGTAGCAGAGACTTGGTCTTACAAATCAAGATCTGCCTGTGATCAAGT
FLT3EXON02_W_1_3.A	ACACTGACGACATGGTTCTACACAACATTATCATTTTTATTTGTTTACAG	FLT3EXON02_W_1_3.B	TACGGTAGCAGAGACTTGGTCTTAAAGGTATAATTTAATGTTACTTTACCA
FLT3EXON02_W_2_4.A	ACACTGACGACATGGTTCTACACATCAGTGGGGAAGTCATCATCATATCCCA	FLT3EXON02_W_2_4.B	TACGGTAGCAGAGACTTGGTCTATAGATGCTGTGTTGACCATGTGAGG
FLT3EXON03_C_1_5.A	ACACTGACGACATGGTTCTACATACATCCACTTCCACAGCGGCAGC	FLT3EXON03_C_1_5.B	TACGGTAGCAGAGACTTGGTCTGCATATGTTGATAAAGTTTTGATGTGAA
FLT3EXON03_C_2_6.A	ACACTGACGACATGGTTCTACACACTTACTGTTTTGTAATCAAAATGTGG	FLT3EXON03_C_2_6.B	TACGGTAGCAGAGACTTGGTCTGCGTTGAGACCCAGAGCTCAGG
FLT3EXON03_C_3_7.A	ACACTGACGACATGGTTCTACACAGCTGGGTGACAGAGAGAGACCC	FLT3EXON03_C_3_7.B	TACGGTAGCAGAGACTTGGTCTGTCTTAAAGCACAGCTCCCTGAATTGCC
FLT3EXON03_W_1_8.A	ACACTGACGACATGGTTCTACATGAATTCATTTGTTCTATCTGCAACGTAG	FLT3EXON03_W_1_8.B	TACGGTAGCAGAGACTTGGTCTCCAGAGACAGAAATGTTCCCTGGGG
FLT3EXON03_W_2_9.A	ACACTGACGACATGGTTCTACATCTGCTCCATCAGCTGCAAGTGCT	FLT3EXON03_W_2_9.B	TACGGTAGCAGAGACTTGGTCTAACAGAACTTGAACAAAATCCAAATGA
FLT3EXON05_C_1_10.A	ACACTGACGACATGGTTCTACAGCTCTGGAACGCTCTCAGATATGCAGA	FLT3EXON05_C_1_10.B	TACGGTAGCAGAGACTTGGTCTTTTATAATGACATAGAATCCTTTCTGA
FLT3EXON05_C_2_11.A	ACACTGACGACATGGTTCTACACATACAGCTTGATGTCAACTACATTAGAAA	FLT3EXON05_C_2_11.B	TACGGTAGCAGAGACTTGGTCTACTTTAGAAAAATGGAAACCAGGACGCC
FLT3EXON05_W_1_12.A	ACACTGACGACATGGTTCTACAGTAAATGTTAATAACTTATGATGCTTTAG	FLT3EXON05_W_1_12.B	TACGGTAGCAGAGACTTGGTCTACCATGGATGTGCATACCTTTCCCCC
FLT3EXON05_W_2_13.A	ACACTGACGACATGGTTCTACACGATCGTGAATGGGTGCTTGGC	FLT3EXON05_W_2_13.B	TACGGTAGCAGAGACTTGGTCTCCATTTTTTAACTTAAAGAACCAAGTTT
FLT3EXON08_C_1_14.A	ACACTGACGACATGGTTCTACAGTCGTTTCTTCCACTGATGATAAAAAAGC	FLT3EXON08_C_1_14.B	TACGGTAGCAGAGACTTGGTCTGACAAGTTTGATTCTGAAAAATGCAGGAAC
FLT3EXON08_C_2_15.A	ACACTGACGACATGGTTCTACATCCACACTACAGCGACTAAAAATAGGAATA	FLT3EXON08_C_2_15.B	TACGGTAGCAGAGACTTGGTCTACAAAACAGAACTATGATACGGATTCTGTTT
FLT3EXON08_W_1_16.A	ACACTGACGACATGGTTCTACAAAATGCAAACTCTGTTTTATTAACACTAG	FLT3EXON08_W_1_16.B	TACGGTAGCAGAGACTTGGTCTGATGGTAACCAAAGCTGATTGACTGGGATG
FLT3EXON08_W_2_17.A	ACACTGACGACATGGTTCTACAACCGGATACTACACTTGTCTCTTCAAAG	FLT3EXON08_W_2_17.B	TACGGTAGCAGAGACTTGGTCTTCTTGTGTTGATAGTAGCATTATATTG
FLT3EXON09_C_1_18.A	ACACTGACGACATGGTTCTACAAGGCTTTAAACCTGACAGAAAAACAACT	FLT3EXON09_C_1_18.B	TACGGTAGCAGAGACTTGGTCTAACTGATGAATACAAAGTTATTTTATCTTC
FLT3EXON09_C_2_19.A	ACACTGACGACATGGTTCTACATTATGCTAAAAATGGTATCTTAGAGTCCTT	FLT3EXON09_C_2_19.B	TACGGTAGCAGAGACTTGGTCTGTGAAGATTGAAATGACCAATATGAAG
FLT3EXON09_W_1_20.A	ACACTGACGACATGGTTCTACATAACTCATAAATGCCTATTTTTCTTACAG	FLT3EXON09_W_1_20.B	TACGGTAGCAGAGACTTGGTCTCTTTTCTCACAAAGAAATGATTTTCGAG
FLT3EXON09_W_2_21.A	ACACTGACGACATGGTTCTACAACCCACAATCAGATGTACGTGGACCTTC	FLT3EXON09_W_2_21.B	TACGGTAGCAGAGACTTGGTCTAAGTGAATTTGCTTCCATAAGTATAAACT

FLT3EXON11_C_1_22.A	ACACTGACGACATGGTTCTACAACCTCTCCAGGTCCAAGATGGTAATGGGT	FLT3EXON11_C_1_22.B	TACGGTAGCAGAGACTTGGTCTCTCCACCTTGGCTTCACAAAGTATTGGT
FLT3EXON11_C_2_23.A	ACACTGACGACATGGTTCTACAAAATATTTTCATCTTCTTAAACTGTA	FLT3EXON11_C_2_23.B	TACGGTAGCAGAGACTTGGTCTCAAGTCAGGCGTCTGTTTCTCGGA
FLT3EXON11_W_1_24.A	ACACTGACGACATGGTTCTACATGAGCTTATTTACACAGTCTTTTCTATAG	FLT3EXON11_W_1_24.B	TACGGTAGCAGAGACTTGGTCTTATGTTCTTCCATTATAAGAGGCATCAAT
FLT3EXON12_C_1_25.A	ACACTGACGACATGGTTCTACAATGTTTAGAGTACTGCTCGACACCCACTG	FLT3EXON12_C_1_25.B	TACGGTAGCAGAGACTTGGTCTTGAATCTCTTTTAGAACTCGTGCAGAAAT
FLT3EXON12_C_2_26.A	ACACTGACGACATGGTTCTACATGGTGAATATCACAAAGCAACTGTTGTA	FLT3EXON12_C_2_26.B	TACGGTAGCAGAGACTTGGTCTGAATAGAAAGGCTAACAGAAAAGTGTGG
FLT3EXON12_W_1_27.A	ACACTGACGACATGGTTCTACAGTCTAAATTTCTTGTATTTTTTTTTCAG	FLT3EXON12_W_1_27.B	TACGGTAGCAGAGACTTGGTCTGATGTGCCAAGGGAATTGATGCACAGC
FLT3EXON12_W_2_28.A	ACACTGACGACATGGTTCTACAGAGTGAAGCCATAAAAAGGGTCTGGTCA	FLT3EXON12_W_2_28.B	TACGGTAGCAGAGACTTGGTCTGTAAAATCCCAAGTAAAAGTCAGCGAT
FLT3EXON15_C_1_29.A	ACACTGACGACATGGTTCTACAAAATTAGCAGGGTTAAACGACAATGAAGA	FLT3EXON15_C_1_29.B	TACGGTAGCAGAGACTTGGTCTAGGATGTGAGAGATTATAATGAGTTGCCA
FLT3EXON15_C_2_30.A	ACACTGACGACATGGTTCTACACTTTCATACCTAAATGCTTCAGAGATGAA	FLT3EXON15_C_2_30.B	TACGGTAGCAGAGACTTGGTCTCATTCTATGCAACAATTGGTGTGTCTCC
FLT3EXON15_C_3_31.A	ACACTGACGACATGGTTCTACATTACCAAACCTAAATTTCTCTGGAAAC	FLT3EXON15_C_3_31.B	TACGGTAGCAGAGACTTGGTCTAGAAGTGCCTATTCTAACTGACTCATCAT
FLT3EXON15_C_4_32.A	ACACTGACGACATGGTTCTACAACCTTTCCAAAAGCACCTGATCCTAGTACC	FLT3EXON15_C_4_32.B	TACGGTAGCAGAGACTTGGTCTCAGAGAAATGAATATGATCTCAAATGGGA
FLT3EXON15_C_5_33.A	ACACTGACGACATGGTTCTACAGCCTCCCATTTTTGTGCATCTTGTGTC	FLT3EXON15_C_5_33.B	TACGGTAGCAGAGACTTGGTCTCAGTACTCACCATTTGTCTTGCAGGG
FLT3EXON15_W_1_34.A	ACACTGACGACATGGTTCTACATCATCGCTGAGTGACACTCTTTTGTGCA	FLT3EXON15_W_1_34.B	TACGGTAGCAGAGACTTGGTCTGAGATAGAGAAAAGAAATGAATTTTTA
FLT3EXON15_W_2_35.A	ACACTGACGACATGGTTCTACAGTCAACAAGTACAAAAGGTAAGCAAAGG	FLT3EXON15_W_2_35.B	TACGGTAGCAGAGACTTGGTCTAAATCAACGTAGAAAGTACTCATTATCTGAG
FLT3EXON15_W_3_36.A	ACACTGACGACATGGTTCTACACCAGCTACAGATGGTACAGGTGACCG	FLT3EXON15_W_3_36.B	TACGGTAGCAGAGACTTGGTCTCATTTTAAAGATTTTCCAATGAAAAGAAA
FLT3EXON15_W_4_37.A	ACACTGACGACATGGTTCTACAGAATGGAATGTGCCAATGTTTCTGCAGC	FLT3EXON15_W_4_37.B	TACGGTAGCAGAGACTTGGTCTTGTGACGGCAACTGGATTGAGACTCC
FLT3EXON15_W_5_38.A	ACACTGACGACATGGTTCTACAGATGAACGCAACAGCTTATGGAATTAGCAA	FLT3EXON15_W_5_38.B	TACGGTAGCAGAGACTTGGTCTATGGCAAACAGTAACCATTAAAAGGATGGA
FLT3EXON16_C_1_39.A	ACACTGACGACATGGTTCTACAGCAGGTTCAACAATTTCTCTGGCTTCC	FLT3EXON16_C_1_39.B	TACGGTAGCAGAGACTTGGTCTTGTACTCTGAGCTGAGAAAAATTTTATTTA
FLT3EXON16_C_2_40.A	ACACTGACGACATGGTTCTACAAGAATAAAAAGAGAGAGAGAGAGAGA	FLT3EXON16_C_2_40.B	TACGGTAGCAGAGACTTGGTCTCATGTGCAAGTCAAGATGATGACCCAGC
FLT3EXON16_W_1_41.A	ACACTGACGACATGGTTCTACATTACATTTTTAATGCTCTTTCTTTGACAG	FLT3EXON16_W_1_41.B	TACGGTAGCAGAGACTTGGTCTAGTCTTTTGTGAGGTGATTTCTGTGGAA
FLT3EXON17_C_1_42.A	ACACTGACGACATGGTTCTACATCCAAGTCTGTGAAAATTTTCTCTTTAC	FLT3EXON17_C_1_42.B	TACGGTAGCAGAGACTTGGTCTCCCTCCTAAGAGTATGTTGTCTGTACATA
FLT3EXON17_C_2_43.A	ACACTGACGACATGGTTCTACAACACTTTGCTACGTTCTATGATGTGTAAT	FLT3EXON17_C_2_43.B	TACGGTAGCAGAGACTTGGTCTGCTATGGTGTCTTCTCAACTATCTAAGAA
FLT3EXON17_W_1_44.A	ACACTGACGACATGGTTCTACATGCCTATAATTTGAAACTGTAATTTTCAG	FLT3EXON17_W_1_44.B	TACGGTAGCAGAGACTTGGTCTAATTTGGATGTGATTGAAAAGTGGGGTAAA
FLT3EXON17_W_2_45.A	ACACTGACGACATGGTTCTACACAGAGATTTTCAAGGAACACAATTTAGTT	FLT3EXON17_W_2_45.B	TACGGTAGCAGAGACTTGGTCTCAGGACCCACAGACTTACGGTGC
FLT3EXON19_C_1_46.A	ACACTGACGACATGGTTCTACAATATTACCTTCAGAGTGAATGAATCCCA	FLT3EXON19_C_1_46.B	TACGGTAGCAGAGACTTGGTCTAATCCATTTATTTGATGAATTACATTTTA
FLT3EXON19_C_2_47.A	ACACTGACGACATGGTTCTACAAGTATCATCTGACAATTAGCAAATTTTAA	FLT3EXON19_C_2_47.B	TACGGTAGCAGAGACTTGGTCTCCGGACTCGGATCAAATCTCAGGG
FLT3EXON19_W_1_48.A	ACACTGACGACATGGTTCTACAAAATAATGAAAAAACAAAATTTTTAATAG	FLT3EXON19_W_1_48.B	TACGGTAGCAGAGACTTGGTCTATAGCTAACATAAAAACCTTTGCATTCAATT
FLT3EXON21_C_1_1.A	ACACTGACGACATGGTTCTACAGATATCTCGAGCCAATCCAAAGTCACATAT	FLT3EXON21_C_1_1.B	TACGGTAGCAGAGACTTGGTCTACCTCCTACTGAAGTTGAGCTAGAAGAAA
FLT3EXON21_C_2_2.A	ACACTGACGACATGGTTCTACATGCACCACAGTGAGTGCAGTTGTTTAC	FLT3EXON21_C_2_2.B	TACGGTAGCAGAGACTTGGTCTGTGCTTGTCCACCACGGGAAAGTG
FLT3EXON21_W_1_3.A	ACACTGACGACATGGTTCTACATAAATAACTCTGGTGTCTTCTTGTGACAG	FLT3EXON21_W_1_3.B	TACGGTAGCAGAGACTTGGTCTAAAATAAGTAGGAAATAGCAGCCTCACATT
FLT3EXON21_W_2_4.A	ACACTGACGACATGGTTCTACAATGAGTGATTTCAACTATGTTGTGACGGGC	FLT3EXON21_W_2_4.B	TACGGTAGCAGAGACTTGGTCTTTTAAAGCATAAGTAAGCAGACTGCTGTGA
FLT3EXON23_C_1_5.A	ACACTGACGACATGGTTCTACATAGCATAAAATGGCTGATCCATTTTAAATC	FLT3EXON23_C_1_5.B	TACGGTAGCAGAGACTTGGTCTTGGCAGATCTCAATACGTGTTTAAATGAAT
FLT3EXON23_C_2_6.A	ACACTGACGACATGGTTCTACAATCCTATACGCTTTGCACTAAGGAGTTTGA	FLT3EXON23_C_2_6.B	TACGGTAGCAGAGACTTGGTCTATGCTAACTTCTACAAAAGTATTCAAATG
FLT3EXON23_W_1_7.A	ACACTGACGACATGGTTCTACAATGGCTGCAATTTGTCTAATGTTTTCTCAG	FLT3EXON23_W_1_7.B	TACGGTAGCAGAGACTTGGTCTAGACTGTACCTTTCTGATTTCAACCAAATT
FLT3EXON24_C_1_8.A	ACACTGACGACATGGTTCTACAGCCAGCTGACATCCTAAAACGAAGTCAAA	FLT3EXON24_C_1_8.B	TACGGTAGCAGAGACTTGGTCTGGAATAAATGGTGTCTCATTATATGAAAA
FLT3EXON24_C_2_9.A	ACACTGACGACATGGTTCTACAGAGAATGACAACCTGGTACCTTTGGTTTAC	FLT3EXON24_C_2_9.B	TACGGTAGCAGAGACTTGGTCTGACTCAAGGAAACGGCCATCTCTCC
FLT3EXON24_W_1_10.A	ACACTGACGACATGGTTCTACAATCTTGTCTTGTCTATTGCTTTTACAG	FLT3EXON24_W_1_10.B	TACGGTAGCAGAGACTTGGTCTCAATTTCTTTGTAAGCTTTATAAAGTCC
FLT3EXON25_C_1_11.A	ACACTGACGACATGGTTCTACATAGCCCAAATCCATCTCTGTGCTGAAAG	FLT3EXON25_C_1_11.B	TACGGTAGCAGAGACTTGGTCTGTTTTTATTTAAATAATTTGTAATATGGGC
FLT3EXON25_C_2_12.A	ACACTGACGACATGGTTCTACATTAGTGATGAAATTAATCTTGTTTGGTAA	FLT3EXON25_C_2_12.B	TACGGTAGCAGAGACTTGGTCTGAATGTCTCACACTACCAAACAGGGC

FLT3EXON25_W_1_13.A	ACACTGACGACATGGTTCTACAATCAGTGTCTGTCTCTTTCCACATTGAG	FLT3EXON25_W_1_13.B	TACGGTAGCAGAGACTTGGTCTTGAAGTCCTTAAACTAAATTGTTCTCTA
FLT3EXON25_W_2_14.A	ACACTGACGACATGGTTCTACTCTCTCCGAGGCTCAGGTCG	FLT3EXON25_W_2_14.B	TACGGTAGCAGAGACTTGGTCTAAACGAGACAGCTTCTAGAGAAAAGTCTG
JAK2EXON04_C_1_48.A	ACACTGACGACATGGTTCTACACATATCTAACACTGCCATCCCAAGACATTC	JAK2EXON04_C_1_48.B	TACGGTAGCAGAGACTTGGTCTTCTGAAAATTATGATTAATAATAATCAT
JAK2EXON04_C_2_47.A	ACACTGACGACATGGTTCTACATATATACGAATTATATAAAATCTCTACTCA	JAK2EXON04_C_2_47.B	TACGGTAGCAGAGACTTGGTCTAAAGTACCTGTGACTCATGAACACAGGAA
JAK2EXON04_W_1_46.A	ACACTGACGACATGGTTCTACAGAGATATTTCTTCAAATTTTGGTTTTAG	JAK2EXON04_W_1_46.B	TACGGTAGCAGAGACTTGGTCTTACCTGATAGAGTTATAGATGGCCAGTGG
JAK2EXON04_W_2_45.A	ACACTGACGACATGGTTCTACAATGAGAATAGCCAAAGAAAACGATCAAACC	JAK2EXON04_W_2_45.B	TACGGTAGCAGAGACTTGGTCTTAGATAAAGGAGTACTTAAGTAGTATTACA
JAK2EXON06_C_1_44.A	ACACTGACGACATGGTTCTACATAAAGTGGCTTTCATTTGAAACCTCTTG	JAK2EXON06_C_1_44.B	TACGGTAGCAGAGACTTGGTCTATTGGAAAGAATGTTGCTTCTTAAGTCT
JAK2EXON06_C_2_43.A	ACACTGACGACATGGTTCTACACCAGAAAATAATTTGGTACTAAGATTCTA	JAK2EXON06_C_2_43.B	TACGGTAGCAGAGACTTGGTCTATTATTGATGTCAGTATTAAGCAAGCAAAC
JAK2EXON06_W_1_42.A	ACACTGACGACATGGTTCTACAGTTTTAATTTTACATGCTTTAATTATAG	JAK2EXON06_W_1_42.B	TACGGTAGCAGAGACTTGGTCTAACCATTTCAATCATAAAGCAAACCTTAC
JAK2EXON09_C_1_41.A	ACACTGACGACATGGTTCTACAGCTGAAGTCTTCTTTGCCCAGTGGT	JAK2EXON09_C_1_41.B	TACGGTAGCAGAGACTTGGTCTGCTTGTCTTGTGATATCATTTTGCAGAA
JAK2EXON09_C_2_40.A	ACACTGACGACATGGTTCTACAAAATAACTAGAAAATTATCTTACCTTTTGG	JAK2EXON09_C_2_40.B	TACGGTAGCAGAGACTTGGTCTTGTATTACAAAAAATGAGAATGAAGAGTAC
JAK2EXON09_C_3_39.A	ACACTGACGACATGGTTCTACATGCTGTACAATAAGAATAAAGATAAAATTA	JAK2EXON09_C_3_39.B	TACGGTAGCAGAGACTTGGTCTTCCAGTTTACTAAATGCTGTCCCCAAAG
JAK2EXON09_W_1_38.A	ACACTGACGACATGGTTCTACTCCCTTTCTTTATAATTAACCTTATACAG	JAK2EXON09_W_1_38.B	TACGGTAGCAGAGACTTGGTCTAATTATATTGTCTGAGCGAACAGTTCCAT
JAK2EXON09_W_2_37.A	ACACTGACGACATGGTTCTACAAGTCTTAAAGATCTTTTGAATTGTTACCAG	JAK2EXON09_W_2_37.B	TACGGTAGCAGAGACTTGGTCTTGAATCAATGTACTGAAGATACTTACGCG
JAK2EXON10_C_1_36.A	ACACTGACGACATGGTTCTACATTTGGTTCATATGAGTAGGCCCTCTGTAATG	JAK2EXON10_C_1_36.B	TACGGTAGCAGAGACTTGGTCTACGTAGAACACATTTTCACTTCTCTT
JAK2EXON10_C_2_35.A	ACACTGACGACATGGTTCTACAAATGTCACATGAATGTAATCAAGAAAACA	JAK2EXON10_C_2_35.B	TACGGTAGCAGAGACTTGGTCTATGGTGTCTGTATGTACCAACCTCACAA
JAK2EXON10_W_1_34.A	ACACTGACGACATGGTTCTACAAAGTATATATATGATTTTATTTTTCAG	JAK2EXON10_W_1_34.B	TACGGTAGCAGAGACTTGGTCTAATGAGTATCTAATGACTTACAAATATCA
JAK2EXON10_W_2_33.A	ACACTGACGACATGGTTCTACATGGTGTTCACAAAATCAGAAATGAAGATT	JAK2EXON10_W_2_33.B	TACGGTAGCAGAGACTTGGTCTATTTTTCATAAGAAAAATTTAAATCAC
JAK2EXON11_C_1_32.A	ACACTGACGACATGGTTCTACATTTCTGTTTCATGCAAGTGGACCGTAGTCTCC	JAK2EXON11_C_1_32.B	TACGGTAGCAGAGACTTGGTCTAAAAAATTTCTTCTTGAATGATTTTTC
JAK2EXON11_C_2_31.A	ACACTGACGACATGGTTCTACAGAGTACGTTGTATGCATATGAGAGCACATC	JAK2EXON11_C_2_31.B	TACGGTAGCAGAGACTTGGTCTAAGATTTTAAAGGCGTACGAAGAGAAGTA
JAK2EXON11_W_1_30.A	ACACTGACGACATGGTTCTACAATCTTTTCTTTTACCTTTTCTCTTGAAG	JAK2EXON11_W_1_30.B	TACGGTAGCAGAGACTTGGTCTAAGAACATACACACCTCTGAATAGTTTCT
JAK2EXON11_W_2_29.A	ACACTGACGACATGGTTCTACAGTTCTTTTAAAGTTCTGGATAAAGCACAC	JAK2EXON11_W_2_29.B	TACGGTAGCAGAGACTTGGTCTGTATCCTCAGAAAAGTCTTGACACATTTA
JAK2EXON12_C_1_28.A	ACACTGACGACATGGTTCTACAACCTCTGCTCCACAGACACATACTCCA	JAK2EXON12_C_1_28.B	TACGGTAGCAGAGACTTGGTCTAGTGCATCTTTATTATGGCAGAGAGAATTT
JAK2EXON12_C_2_27.A	ACACTGACGACATGGTTCTACACTTAACTCCTGTTAAATATAGTTTACT	JAK2EXON12_C_2_27.B	TACGGTAGCAGAGACTTGGTCTAAGCTTTTCTACAAGCATTGGTTTTAAAT
JAK2EXON12_W_1_26.A	ACACTGACGACATGGTTCTACAACAATCTTTGTACTTTTTTTTTCTTAG	JAK2EXON12_W_1_26.B	TACGGTAGCAGAGACTTGGTCTTCTATATAAAACAAAACAGATGCTCTGAG
JAK2EXON13_C_1_25.A	ACACTGACGACATGGTTCTACACAAGTTTCCATAATATATTTATACAATTTT	JAK2EXON13_C_1_25.B	TACGGTAGCAGAGACTTGGTCTTGGTCCACATGTAAGTATAAAGATTTAAAT
JAK2EXON13_C_2_24.A	ACACTGACGACATGGTTCTACATTTGTTCCAGGTAAGATAATTTGTATA	JAK2EXON13_C_2_24.B	TACGGTAGCAGAGACTTGGTCTGATCACTAGATACATATCTGAAAAAGAATA
JAK2EXON13_W_1_23.A	ACACTGACGACATGGTTCTACACTTATTATTACTTATATTTAATGCAG	JAK2EXON13_W_1_23.B	TACGGTAGCAGAGACTTGGTCTATAAAAAGTTGTACTACTACTAGAAAAAT
JAK2EXON13_W_2_22.A	ACACTGACGACATGGTTCTACAAGTGTCTAAACAGTTGGCATGGGCC	JAK2EXON13_W_2_22.B	TACGGTAGCAGAGACTTGGTCTCTTTTATCACCTAACACAGACTATTTTA
JAK2EXON14_C_1_21.A	ACACTGACGACATGGTTCTACAGAAAGGAGGATTTCTGTCTTCTGTCTTC	JAK2EXON14_C_1_21.B	TACGGTAGCAGAGACTTGGTCTCTTAAATCTGTTTTGGGGGCTTGAACAT
JAK2EXON14_C_2_20.A	ACACTGACGACATGGTTCTACAACAACATGCCCTTACACCACTGCC	JAK2EXON14_C_2_20.B	TACGGTAGCAGAGACTTGGTCTTGCCAAAAAATATTCTGCTTATCAGAGAA
JAK2EXON14_W_1_19.A	ACACTGACGACATGGTTCTACATTTGAATATATGTGCGTTTAACTCTAATAG	JAK2EXON14_W_1_19.B	TACGGTAGCAGAGACTTGGTCTCTAGAACTTACTGTCTTTGGCAAACCTGT
JAK2EXON14_W_2_18.A	ACACTGACGACATGGTTCTACAATCAAACCTAGTATCCTGGCATTAGTATT	JAK2EXON14_W_2_18.B	TACGGTAGCAGAGACTTGGTCTAAAGTGATAATTTTATTATTAATCAGGAAC
JAK2EXON16_C_1_17.A	ACACTGACGACATGGTTCTACATTCATAATCCATACAAATTTTATAAGGTT	JAK2EXON16_C_1_17.B	TACGGTAGCAGAGACTTGGTCTGATTTGATTTTTTATAGCCCTCAATTTTA
JAK2EXON16_C_2_16.A	ACACTGACGACATGGTTCTACATCATTAAATACAATAAAGATAGAAAAGCTGG	JAK2EXON16_C_2_16.B	TACGGTAGCAGAGACTTGGTCTTCTCTGACCAAAGTGGGCAGAATTAG
JAK2EXON16_W_1_15.A	ACACTGACGACATGGTTCTACATATTCTCAGTTTGGTCTTTAATTATAG	JAK2EXON16_W_1_15.B	TACGGTAGCAGAGACTTGGTCTGGAGTAAACAAAACCTGTTAAGATCTCGTAT
JAK2EXON16_W_2_14.A	ACACTGACGACATGGTTCTACACCAGATTTAGGCCTTTTCAGAGCCA	JAK2EXON16_W_2_14.B	TACGGTAGCAGAGACTTGGTCTTAAAGAGGGCCAAATGACATCAAGAAAAT
JAK2EXON17_C_1_13.A	ACACTGACGACATGGTTCTACATAGGATCCCGTCTTCAAAGGCCACC	JAK2EXON17_C_1_13.B	TACGGTAGCAGAGACTTGGTCTGATTTTGGTCAACTTGAATGTATATC
JAK2EXON17_C_2_12.A	ACACTGACGACATGGTTCTACAACCTTAGAAACGCTCTTAAAGTTTTCTAA	JAK2EXON17_C_2_12.B	TACGGTAGCAGAGACTTGGTCTTACCAATATGAGGATAGGTGCCCTGGGG



JAK2EXON17_W_1_11.A	ACACTGACGACATGGTTCTACATTAAGGTGATAATATTCTTTATTTCTCCAG	JAK2EXON17_W_1_11.B	TACGGTAGCAGAGACTTGGTCTTCTGACAATTTACCTTGCCAAGTTGCTGTA
JAK2EXON17_W_2_10.A	ACACTGACGACATGGTTCTACACACAGTTTGAAGAGAGACATTTGAAATTTTC	JAK2EXON17_W_2_10.B	TACGGTAGCAGAGACTTGGTCTACATCTGACAACCAAACCTTTTTTTTCTAC
JAK2EXON18_C_1_9.A	ACACTGACGACATGGTTCTACAACATGCTGAAGCTTTTTACAGCGACCAC	JAK2EXON18_C_1_9.B	TACGGTAGCAGAGACTTGGTCTGCTACTAGAATTTTCTATATAATTATAAAA
JAK2EXON18_C_2_8.A	ACACTGACGACATGGTTCTACAGGTTTCAATGGGCAGCTTACCAGCAC	JAK2EXON18_C_2_8.B	TACGGTAGCAGAGACTTGGTCTTATGACCCCTACAGGACAACACTGGGG
JAK2EXON18_C_3_7.A	ACACTGACGACATGGTTCTACACACAATCTAGTCATTATAGAATGCCTCT	JAK2EXON18_C_3_7.B	TACGGTAGCAGAGACTTGGTCTGACAACATTGTAAGTACAAGGGAGTGTGC
JAK2EXON18_W_1_6.A	ACACTGACGACATGGTTCTACAATTTCCATCTAATGTGATGTGTCATTAG	JAK2EXON18_W_1_6.B	TACGGTAGCAGAGACTTGGTCTATGCTGTAGGGATTTACAGATTCAATTTTC
JAK2EXON18_W_2_5.A	ACACTGACGACATGGTTCTACAACGAAGAGCACCTAAGAGACTTTGAAGGG	JAK2EXON18_W_2_5.B	TACGGTAGCAGAGACTTGGTCTTAAAGACATTGTACATTTATATTACACAGG
JAK2EXON19_C_1_4.A	ACACTGACGACATGGTTCTACATGTGATCTATCCGTTCTTTATGTTTTGAA	JAK2EXON19_C_1_4.B	TACGGTAGCAGAGACTTGGTCTGTTTAAAGTCATTATGTATGATAGTTTTTC
JAK2EXON19_C_2_3.A	ACACTGACGACATGGTTCTACAATCTATGAAAACGCTAGATGATTTCTAA	JAK2EXON19_C_2_3.B	TACGGTAGCAGAGACTTGGTCTATTTACCATATGGAAGTTTACGAGACTATC
JAK2EXON19_W_1_2.A	ACACTGACGACATGGTTCTACAAAAACATTATTTCCACCTTTATGTTAAAAG	JAK2EXON19_W_1_2.B	TACGGTAGCAGAGACTTGGTCTAGCAAATAATCAGGATATTAGTTACCTTGC
JAK2EXON19_W_2_1.A	ACACTGACGACATGGTTCTACATAAAACTTCTGCAGTACACATCTCAGATAT	JAK2EXON19_W_2_1.B	TACGGTAGCAGAGACTTGGTCTCAGTAGTTTTATAAATAAAACAATTTAA
JAK2EXON23_C_1_48.A	ACACTGACGACATGGTTCTACACCTATTTGATCCACTCGAAGAGCTAGATC	JAK2EXON23_C_1_48.B	TACGGTAGCAGAGACTTGGTCTATGTGCCCTGATTGAAAATTAATGTCTTC
JAK2EXON23_C_2_47.A	ACACTGACGACATGGTTCTACAATTTATATAATAATGATATATGTAATAATA	JAK2EXON23_C_2_47.B	TACGGTAGCAGAGACTTGGTCTAATAATGTAATCAACGCCCTCCTTAGG
JAK2EXON23_W_1_46.A	ACACTGACGACATGGTTCTACATTTAATTTTGGTTATTTTCTCCTTACAG	JAK2EXON23_W_1_46.B	TACGGTAGCAGAGACTTGGTCTTCTGTAAATCTACTTTGGTCTCAGAATGA
KRASEXON01_C_1_48.A	ACACTGACGACATGGTTCTACAGTCCACAAAATGATTCTGAATTAGCTGTAT	KRASEXON01_C_1_48.B	TACGGTAGCAGAGACTTGGTCTGGTGGAGATTTGATAGTGTATTAACTTA
KRASEXON01_C_2_47.A	ACACTGACGACATGGTTCTACATATCTTGAATAAGTACTCATGAAAATGGT	KRASEXON01_C_2_47.B	TACGGTAGCAGAGACTTGGTCTGCTGGTGGCGTAGGCAAGAGTG
KRASEXON01_W_1_46.A	ACACTGACGACATGGTTCTACATCATTATTTTATTATAAGGCCTGCTGAAA	KRASEXON01_W_1_46.B	TACGGTAGCAGAGACTTGGTCTGCTGCACCAGTAATATGCATATTAAC
KRASEXON03_C_1_45.A	ACACTGACGACATGGTTCTACACATTGCACTGTACTCCTCTTGACCTGCT	KRASEXON03_C_1_45.B	TACGGTAGCAGAGACTTGGTCTTGAATTTTTTGTGTTGAGTTGTATATAA
KRASEXON03_C_2_44.A	ACACTGACGACATGGTTCTACATGTGAGCTTATTATATTCAATTTAAACCCA	KRASEXON03_C_2_44.B	TACGGTAGCAGAGACTTGGTCTGGAGAAACCTGTCTCTTGATATTCTCGAC
KRASEXON03_W_1_43.A	ACACTGACGACATGGTTCTACAATAATCCAGACTGTGTTTCTCCCTTCTCAG	KRASEXON03_W_1_43.B	TACGGTAGCAGAGACTTGGTCTAGTATTATTTATGGCAAATACACAAAGAAA
KRASEXON03_W_2_42.A	ACACTGACGACATGGTTCTACAAGGGACCAGTACATGAGGACTGGGG	KRASEXON03_W_2_42.B	TACGGTAGCAGAGACTTGGTCTAATATTATATGCATGGCATTAGCAAAGACT
KRASEXON04_C_1_41.A	ACACTGACGACATGGTTCTACAGTGTCTACTGTTCTAGAAGGCCAAATCACAT	KRASEXON04_C_1_41.B	TACGGTAGCAGAGACTTGGTCTCAGCCAAATTTTATGACAAAAGTTGTGGAC
KRASEXON04_C_2_40.A	ACACTGACGACATGGTTCTACAAGTTATGATTTGCAGAAAACAGATCTGTA	KRASEXON04_C_2_40.B	TACGGTAGCAGAGACTTGGTCTAGATGTACCTATTGGTCTAGTAGGAAATAA
KRASEXON04_W_1_39.A	ACACTGACGACATGGTTCTACAACGTGTGCTATAACTTTTTTTCTTTCCAG	KRASEXON04_W_1_39.B	TACGGTAGCAGAGACTTGGTCTTTGCTGATGTTTCAATAAAAGGAATTCCA
KRASEXON04_W_2_38.A	ACACTGACGACATGGTTCTACAAAAACAGGCTCAGGACTTAGCAAGAAGTTA	KRASEXON04_W_2_38.B	TACGGTAGCAGAGACTTGGTCTTTGTTTTATTTCTAGTATAGCATAATTGA
KRASEXON05_C_1_37.A	ACACTGACGACATGGTTCTACAACAGCCAGGAGTCTTTTCTTTGCTGA	KRASEXON05_C_1_37.B	TACGGTAGCAGAGACTTGGTCTCATAATCTCAAACCTCTTGACATGGCTTT
KRASEXON05_C_2_36.A	ACACTGACGACATGGTTCTACATAAGTAGTCTAAAGTGGTGCACCTTGT	KRASEXON05_C_2_36.B	TACGGTAGCAGAGACTTGGTCTAGGGAGATCCGACAATACAGATTGAAAAAA
KRASEXON05_W_1_35.A	ACACTGACGACATGGTTCTACAACITTAAGAAGTTGTGTTTTACAATGCAG	KRASEXON05_W_1_35.B	TACGGTAGCAGAGACTTGGTCTAATTAATGTGCTGAACITTAACCTACCAGA
NRASEXON01_C_1_1.A	ACACTGACGACATGGTTCTACAATCTACAAAAGTGGTTCTGGATTAGCTGGAT	NRASEXON01_C_1_1.B	TACGGTAGCAGAGACTTGGTCTCATTGATTATAGAAGCTTTAAAGTACTGT
NRASEXON01_C_2_2.A	ACACTGACGACATGGTTCTACATACTTTCTCTCCTTATTCTTTAATACA	NRASEXON01_C_2_2.B	TACGGTAGCAGAGACTTGGTCTCAGGTTGGTGTGGGAAAAGCGC
NRASEXON01_W_1_3.A	ACACTGACGACATGGTTCTACATGGTTTCCAACAGTTCTTGCTGGTGT	NRASEXON01_W_1_3.B	TACGGTAGCAGAGACTTGGTCTGAGACAGGATCAGGTCAGCGGGC
NRASEXON02_C_1_4.A	ACACTGACGACATGGTTCTACACATGGCACTGTACTCTTCTGTCCAGCT	NRASEXON02_C_1_4.B	TACGGTAGCAGAGACTTGGTCTAACCTTGGCAATAGCATTGCATTCCTGT
NRASEXON02_C_2_5.A	ACACTGACGACATGGTTCTACAATCCTTTCAGAGAAAATAATGCTCCTAGTA	NRASEXON02_C_2_5.B	TACGGTAGCAGAGACTTGGTCTGGTGAACCTGTTTGTGGACATACTGGAT
NRASEXON02_W_1_6.A	ACACTGACGACATGGTTCTACATCCCTGCCCTTACCTCCA	NRASEXON02_W_1_6.B	TACGGTAGCAGAGACTTGGTCTGCTATTATTGATGGCAAATACACAGAGGAA
NRASEXON02_W_2_7.A	ACACTGACGACATGGTTCTACAAGAGACCAATACATGAGGACAGGCGAAGG	NRASEXON02_W_2_7.B	TACGGTAGCAGAGACTTGGTCTGCTCTATCTTCCCTAGTGTGGTAACCTCAT
NRASEXON03_C_1_8.A	ACACTGACGACATGGTTCTACAGTATCAACTGCTCTTGTGGCAAATCACAC	NRASEXON03_C_1_8.B	TACGGTAGCAGAGACTTGGTCTCTCCAAAGTCTGAGATTGCAGGC
NRASEXON03_C_2_9.A	ACACTGACGACATGGTTCTACATTAATCAACTGATGCAAACCTTGACACAAA	NRASEXON03_C_2_9.B	TACGGTAGCAGAGACTTGGTCTGATGTACCTATGGTGTAGTGGAAACAA
NRASEXON03_W_1_10.A	ACACTGACGACATGGTTCTACATATGTTCTGATAATATATCCGTTTTTAG	NRASEXON03_W_1_10.B	TACGGTAGCAGAGACTTGGTCTTGGCTGAGGTTTCAATGAATGGAATCCCG
NRASEXON03_W_2_11.A	ACACTGACGACATGGTTCTACAAAAACAAGCCACGAAGTGGCCAAAG	NRASEXON03_W_2_11.B	TACGGTAGCAGAGACTTGGTCTAAAAATGAAAAAATGCATAACAACAAGA

PTPN11EXON02_C_1_1.A	ACACTGACGACATGGTTCTACATTACTAGGCCTTGCCAAAAAAGTCCATCA	PTPN11EXON02_C_1_1.B	TACGGTAGCAGAGACTTGGTCTTGCTCATAATGCGTCTTAGCTGTGTTGTTG
PTPN11EXON02_C_2_2.A	ACACTGACGACATGGTTCTACAATGACGGCAGCAAGCTATCCAAGC	PTPN11EXON02_C_2_2.B	TACGGTAGCAGAGACTTGGTCTGGCAGAAAACCTACTGTTGACAAGAGGAGT
PTPN11EXON02_W_1_3.A	ACACTGACGACATGGTTCTACATTTATTACTTACTTTGTCTTTCTTTTTAAG	PTPN11EXON02_W_1_3.B	TACGGTAGCAGAGACTTGGTCTGGATCCTCTCTTTTCATTCCAACCTACCTA
PTPN11EXON02_W_2_4.A	ACACTGACGACATGGTTCTACAAAAGTAACCTGGAGACTTCACACTTCCG	PTPN11EXON02_W_2_4.B	TACGGTAGCAGAGACTTGGTCTGAGGCCACTCCCAAAACCTGTA
PTPN11EXON03_C_1_5.A	ACACTGACGACATGGTTCTACATCAGCCAAAGTGGCAAATTTCTCCCT	PTPN11EXON03_C_1_5.B	TACGGTAGCAGAGACTTGGTCTGTAATAATCCGACGTGGAAGATGAGATCTG
PTPN11EXON03_C_2_6.A	ACACTGACGACATGGTTCTACATAAAATGTTACTGACCTTCAGAGGTAGGA	PTPN11EXON03_C_2_6.B	TACGGTAGCAGAGACTTGGTCTCAGAACACTGGTGATTACTATGACCTGTA
PTPN11EXON03_C_3_7.A	ACACTGACGACATGGTTCTACAATCTTTAAAGATTACAGCTCAAAAACAG	PTPN11EXON03_C_3_7.B	TACGGTAGCAGAGACTTGGTCTGAGCTTAATATCCTCTGAACTGTGCAGA
PTPN11EXON03_W_1_8.A	ACACTGACGACATGGTTCTACACTGCCTCCCTTCCAATGGACTATTTAG	PTPN11EXON03_W_1_8.B	TACGGTAGCAGAGACTTGGTCTATGACATCTCCATTCTCTCTTTTAATTGC
PTPN11EXON03_W_2_9.A	ACACTGACGACATGGTTCTACAGTTGGTCCAGTATTACATGGAACATCACGG	PTPN11EXON03_W_2_9.B	TACGGTAGCAGAGACTTGGTCTACAGACCCTCATGCATTCTGACTCA
PTPN11EXON04_C_1_10.A	ACACTGACGACATGGTTCTACATGGCTCTCTCGTACAAGAAAACACCATGT	PTPN11EXON04_C_1_10.B	TACGGTAGCAGAGACTTGGTCTAGGAGAGCTGACTGTATACAGTAGTTTTGT
PTPN11EXON04_C_2_11.A	ACACTGACGACATGGTTCTACATCAACTGGAGATTACCTGACAGCGAATC	PTPN11EXON04_C_2_11.B	TACGGTAGCAGAGACTTGGTCTAGCAGAGAAATTATTAAGTAAAAAGGAAA
PTPN11EXON04_C_3_12.A	ACACTGACGACATGGTTCTACAGTCTCAAATAAATAAATAAATAAATAAATA	PTPN11EXON04_C_3_12.B	TACGGTAGCAGAGACTTGGTCTGACGGCAAGTCTAAAGTGACCCATGT
PTPN11EXON04_W_1_13.A	ACACTGACGACATGGTTCTACAAAATCTTTTTTATTTTTAAAAAAGTTAG	PTPN11EXON04_W_1_13.B	TACGGTAGCAGAGACTTGGTCTTGCTCTCCCTTTGTCTATCACCAAGTG
PTPN11EXON04_W_2_14.A	ACACTGACGACATGGTTCTACAGAGCCACCTGGAGATTTTGTCTTCTGT	PTPN11EXON04_W_2_14.B	TACGGTAGCAGAGACTTGGTCTGGTGTCTGTCTTCTGTCAGCAGAAAAATCA
PTPN11EXON09_C_1_15.A	ACACTGACGACATGGTTCTACAGATGTTTTATATCTATTTTTGTTTTGTT	PTPN11EXON09_C_1_15.B	TACGGTAGCAGAGACTTGGTCTAATCTTAAAGAAGTAAATGCTGATCCAGG
PTPN11EXON09_C_2_16.A	ACACTGACGACATGGTTCTACAGCTAAGGCCTCCGATGTGTAACAAGA	PTPN11EXON09_C_2_16.B	TACGGTAGCAGAGACTTGGTCTTACAGCCGAAAAGAGGGTCAAAGGCA
PTPN11EXON09_W_1_17.A	ACACTGACGACATGGTTCTACAGTAATAATATTGACTTTTCTTTCTTCCAG	PTPN11EXON09_W_1_17.B	TACGGTAGCAGAGACTTGGTCTAGGAATCAAATCTCCAAGAGTGACTATTA
PTPN11EXON10_C_1_18.A	ACACTGACGACATGGTTCTACACAAAGCTTACCATGATGATATTTGCATTGA	PTPN11EXON10_C_1_18.B	TACGGTAGCAGAGACTTGGTCTACTTGGACTAGGCTGGGGAGTAECTGA
PTPN11EXON10_C_2_19.A	ACACTGACGACATGGTTCTACACAGGCTAGAAATTTAGGAAGAAAATCCTC	PTPN11EXON10_C_2_19.B	TACGGTAGCAGAGACTTGGTCTGTGATCCCAATGAGCCTGTTTCAGATTACA
PTPN11EXON10_C_3_20.A	ACACTGACGACATGGTTCTACATCACTCGGGAGTTTTCTTGGAAACCA	PTPN11EXON10_C_3_20.B	TACGGTAGCAGAGACTTGGTCTCATGTCTGAAAGTAACTTTAAGGTGTTT
PTPN11EXON10_C_4_21.A	ACACTGACGACATGGTTCTACAATTTATTCAATTCCTAAACATGGCCAATCT	PTPN11EXON10_C_4_21.B	TACGGTAGCAGAGACTTGGTCTGCCTGCAAAAACACGGTGAATGACTTTTG
PTPN11EXON10_W_1_22.A	ACACTGACGACATGGTTCTACATTATGTGACCGTGGTCTCTTTTCTTCTAG	PTPN11EXON10_W_1_22.B	TACGGTAGCAGAGACTTGGTCTGGAAGGATTTAAATACAAAAATAGGCTAG
PTPN11EXON10_W_2_23.A	ACACTGACGACATGGTTCTACACTTTTACAGTGTTTTCTGACCATACATTT	PTPN11EXON10_W_2_23.B	TACGGTAGCAGAGACTTGGTCTAGCCTTGTGTGGCAATGTAACCTTTTTGG
PTPN11EXON10_W_3_24.A	ACACTGACGACATGGTTCTACAAAATTTGAAACCAAGTGCAACAATTCAAAGC	PTPN11EXON10_W_3_24.B	TACGGTAGCAGAGACTTGGTCTCAGAAAAGAAGTTTCTGTGATTTACCTTTC
PTPN11EXON10_W_4_25.A	ACACTGACGACATGGTTCTACATTGTCATGACAACGAAAGAAGTGAGAGAG	PTPN11EXON10_W_4_25.B	TACGGTAGCAGAGACTTGGTCTCATAATCAAATTTCTCCTAGTCCCTTTTTT
PTPN11EXON12_C_1_26.A	ACACTGACGACATGGTTCTACAATGAGCGGCGCTTTCTTTGACGTT	PTPN11EXON12_C_1_26.B	TACGGTAGCAGAGACTTGGTCTAAGCAAGACTTGAACATTTGTTTGTGCTT
PTPN11EXON12_C_2_27.A	ACACTGACGACATGGTTCTACAATGAGTAACGGCAAGACCCTGAATTCCTAC	PTPN11EXON12_C_2_27.B	TACGGTAGCAGAGACTTGGTCTTATGCTCTAAAAGAATATGGCGTCATGCGT
PTPN11EXON12_W_1_28.A	ACACTGACGACATGGTTCTACATTAACCTTTCTTTTTCTGATCTCTTCCAG	PTPN11EXON12_W_1_28.B	TACGGTAGCAGAGACTTGGTCTATACGACAATATACTTACTTGTCCAACCTT
PTPN11EXON12_W_2_29.A	ACACTGACGACATGGTTCTACAGACTATACGCTAAGAGAACTTAAACTTTCA	PTPN11EXON12_W_2_29.B	TACGGTAGCAGAGACTTGGTCTAGGAAGCTAATAAATGGCTACTGAATCAAT
PTPN11EXON13_C_1_30.A	ACACTGACGACATGGTTCTACAGAAGTCCAGCACGCCCCAGG	PTPN11EXON13_C_1_30.B	TACGGTAGCAGAGACTTGGTCTCCATTGGATTAGGAAAGCTTAGAACCCGGG
PTPN11EXON13_C_2_31.A	ACACTGACGACATGGTTCTACAGGGCGCTAGGAGACAGGGACAG	PTPN11EXON13_C_2_31.B	TACGGTAGCAGAGACTTGGTCTCACTTCCGACCTGGCCGGACC
PTPN11EXON13_W_1_32.A	ACACTGACGACATGGTTCTACACTTTCTGTTTTCTTGCTCTACTCCAG	PTPN11EXON13_W_1_32.B	TACGGTAGCAGAGACTTGGTCTGTGCACCACGACCCGCCCTG
PTPN11EXON13_W_2_33.A	ACACTGACGACATGGTTCTACACTGGAGGAGGTGACCATAAGCAGG	PTPN11EXON13_W_2_33.B	TACGGTAGCAGAGACTTGGTCTCAGATATTAATTTCTTCTACAGTTAAAGA
PTPN11EXON14_C_1_34.A	ACACTGACGACATGGTTCTACATCTGCCACCAGATGACCCACC	PTPN11EXON14_C_1_34.B	TACGGTAGCAGAGACTTGGTCTTGTGTTCTGTTGATTAATGGCTTGGTTT
PTPN11EXON14_C_2_35.A	ACACTGACGACATGGTTCTACACAGACACACTGAAGTCTTCCAGCCAGA	PTPN11EXON14_C_2_35.B	TACGGTAGCAGAGACTTGGTCTGTGATTGATATTCTTATTGACATCATCAG
PTPN11EXON14_W_1_36.A	ACACTGACGACATGGTTCTACATGTCCCTGCTTTTGTCTTCTGCCC	PTPN11EXON14_W_1_36.B	TACGGTAGCAGAGACTTGGTCTTCCCGACTGTTTCTGTGAGCACT
PTPN11EXON15_C_1_37.A	ACACTGACGACATGGTTCTACAATCGGTAAGTGTCTTCTGTCTGGACC	PTPN11EXON15_C_1_37.B	TACGGTAGCAGAGACTTGGTCTTGTCTCTGAGTCCACTAAAAGTTGTGCAT
PTPN11EXON15_C_2_38.A	ACACTGACGACATGGTTCTACAGTATCCAAGAGGCCTAGCAAGAGAATGAGA	PTPN11EXON15_C_2_38.B	TACGGTAGCAGAGACTTGGTCTCATCCAGATGGTGGGCTCTCAGA
PTPN11EXON15_W_1_39.A	ACACTGACGACATGGTTCTACATCTTTATTCTTCTGATGTTTCTTCTGATG	PTPN11EXON15_W_1_39.B	TACGGTAGCAGAGACTTGGTCTGCTCTTCTTCAATCCTGCGCTGTAGTG

PTPN11EXON15_W_2_40.A	ACACTGACGACATGGTTCTACATTATCTATATGGCGGTCCAGCATTATATTG	PTPN11EXON15_W_2_40.B	TACGGTAGCAGAGACTTGGTCTTCCCATTCCGAAATCAAACAGTTGTCTATC
SETD2EXON1_C_1_41.A	ACACTGACGACATGGTTCTACACCCGCGGAGCTGATACTTACTCAGGG	SETD2EXON1_C_1_41.B	TACGGTAGCAGAGACTTGGTCTGCGGTGCGACCTGCGGCCTC
SETD2EXON1_C_2_40.A	ACACTGACGACATGGTTCTACATCCGACACCGACCGCGCGA	SETD2EXON1_C_2_40.B	TACGGTAGCAGAGACTTGGTCTAAGATGGGGATTCTACGACCCGGA
SETD2EXON1_W_1_39.A	ACACTGACGACATGGTTCTACAGGCTCGCTCGCCGCTCCA	SETD2EXON1_W_1_39.B	TACGGTAGCAGAGACTTGGTCTGCCACCCGTCAGGACGCGCC
SETD2EXON10_C_1_48.A	ACACTGACGACATGGTTCTACACCTCTGCTGCTCTGATGCTGACT	SETD2EXON10_C_1_48.B	TACGGTAGCAGAGACTTGGTCTTAGACTGGTATGACTTTTGTGTATTGC
SETD2EXON10_C_2_47.A	ACACTGACGACATGGTTCTACATGACTTTATAACCTTCAATCAGAAAAGCCA	SETD2EXON10_C_2_47.B	TACGGTAGCAGAGACTTGGTCTAGCCAATTGCCGGGGTACCTGG
SETD2EXON10_W_1_46.A	ACACTGACGACATGGTTCTACAGCTGACTTCTTCTATGCTCTTGAACAG	SETD2EXON10_W_1_46.B	TACGGTAGCAGAGACTTGGTCTTGAAGAAAATGCAAACCTACTGAATCC
SETD2EXON10_W_2_45.A	ACACTGACGACATGGTTCTACAGAAAATGAAGAAGGAACGATCTCGTAAGAA	SETD2EXON10_W_2_45.B	TACGGTAGCAGAGACTTGGTCTATTGCATCTCTTTCTGGTAACACTCATC
SETD2EXON11_C_1_44.A	ACACTGACGACATGGTTCTACATCTAACCTTAGCCGGGATAAGCTGAGCA	SETD2EXON11_C_1_44.B	TACGGTAGCAGAGACTTGGTCTAATTGATAAGGTTGAGCAACTTTTGGGTT
SETD2EXON11_C_2_43.A	ACACTGACGACATGGTTCTACATCCTTCTTATTCTCTTCTTCTTCTTCTT	SETD2EXON11_C_2_43.B	TACGGTAGCAGAGACTTGGTCTAATGGTGAGGGTCTCTGATAAAAACCAG
SETD2EXON11_W_1_42.A	ACACTGACGACATGGTTCTACAATAAAAAGGATTTTTATTGCTGTGGTAG	SETD2EXON11_W_1_42.B	TACGGTAGCAGAGACTTGGTCTATAAAGTGTCCACTGTATGAGTCCAG
SETD2EXON11_W_2_41.A	ACACTGACGACATGGTTCTACAATTGAAACTTTGGAGCAGAAACTTACCTGT	SETD2EXON11_W_2_41.B	TACGGTAGCAGAGACTTGGTCTAACAAACAAACAAATAAATAAATAA
SETD2EXON12_C_1_40.A	ACACTGACGACATGGTTCTACAGCCGTCACCTAGCTCTGCCATCC	SETD2EXON12_C_1_40.B	TACGGTAGCAGAGACTTGGTCTAACGTATACATGAACTCTCTCGGGCTCT
SETD2EXON12_C_2_39.A	ACACTGACGACATGGTTCTACAAATTCATAATTACTGATATTATCACATATC	SETD2EXON12_C_2_39.B	TACGGTAGCAGAGACTTGGTCTTTTCTGGAACGTCATGGGCTGCTTTGT
SETD2EXON12_W_1_38.A	ACACTGACGACATGGTTCTACACTGCATCGTGTCTCCCTCCCCC	SETD2EXON12_W_1_38.B	TACGGTAGCAGAGACTTGGTCTAAGAAACAAGCAAGTAAATGTGAACGAC
SETD2EXON13_C_1_37.A	ACACTGACGACATGGTTCTACACTGAGACCAGCGTTGAATAATTGGAAGTAC	SETD2EXON13_C_1_37.B	TACGGTAGCAGAGACTTGGTCTAGCCTGGGTGACAGAGTGAGACTCT
SETD2EXON13_C_2_36.A	ACACTGACGACATGGTTCTACAGTCAGCTTCTGTGCTCAGCTTGGTG	SETD2EXON13_C_2_36.B	TACGGTAGCAGAGACTTGGTCTCTACTAAAAATATGTTGGAGAAAGCAAA
SETD2EXON13_C_3_35.A	ACACTGACGACATGGTTCTACAAGATCCTCTTGGCATCTTGCCTTCTAG	SETD2EXON13_C_3_35.B	TACGGTAGCAGAGACTTGGTCTCGTGTCTATACCACTCAACACACC
SETD2EXON13_C_4_34.A	ACACTGACGACATGGTTCTACATAGCTTACTAGCTTCTATGTTGGTTTCACT	SETD2EXON13_C_4_34.B	TACGGTAGCAGAGACTTGGTCTGACAGTGAATCTCTGATGCAACCACTG
SETD2EXON13_C_5_33.A	ACACTGACGACATGGTTCTACAATCAGACACACCTCTCTTCTTCTTGGG	SETD2EXON13_C_5_33.B	TACGGTAGCAGAGACTTGGTCTCCACAACAGCTGCCTGAATGCAAAGT
SETD2EXON13_C_6_32.A	ACACTGACGACATGGTTCTACATGAAATGAACAAAAGATGCTTCTTACCTT	SETD2EXON13_C_6_32.B	TACGGTAGCAGAGACTTGGTCTAGAAGAACCTATAATGAAGAAACACCA
SETD2EXON13_C_7_31.A	ACACTGACGACATGGTTCTACAAGACACTTATAAATAAAACAGTAAGAGAGA	SETD2EXON13_C_7_31.B	TACGGTAGCAGAGACTTGGTCTACCAAACCTCTGGACAGTTGGAAAGACC
SETD2EXON13_W_1_30.A	ACACTGACGACATGGTTCTACAGTGATGTAATTTTTTTTATGTTAATCAG	SETD2EXON13_W_1_30.B	TACGGTAGCAGAGACTTGGTCTCGATGTATTTCTACTAGAATACCCATCTCC
SETD2EXON13_W_2_29.A	ACACTGACGACATGGTTCTACAACACTAAGACTGTGTCCCTCCGTTGAGT	SETD2EXON13_W_2_29.B	TACGGTAGCAGAGACTTGGTCTCATGTATTTTCACTTATAATTTTCACTCT
SETD2EXON13_W_3_28.A	ACACTGACGACATGGTTCTACAACAGACTCCCAAGAAACTAATGTTTCGC	SETD2EXON13_W_3_28.B	TACGGTAGCAGAGACTTGGTCTGAGTAGCTGTTGTGACTGCAATCTTCTCT
SETD2EXON13_W_4_27.A	ACACTGACGACATGGTTCTACAGATCAATTAGAAAATGTCCTGTAGAGGAA	SETD2EXON13_W_4_27.B	TACGGTAGCAGAGACTTGGTCTTTTGTGCGGTTGCTCTTTTGGGC
SETD2EXON13_W_5_26.A	ACACTGACGACATGGTTCTACACCTACATCTGAACCAGAAGCTGACGCT	SETD2EXON13_W_5_26.B	TACGGTAGCAGAGACTTGGTCTGGCCAATCACTTATATCCACTGTTTATC
SETD2EXON13_W_6_25.A	ACACTGACGACATGGTTCTACAGTGGAGAGTGAAGGAGCCAAGAACAGC	SETD2EXON13_W_6_25.B	TACGGTAGCAGAGACTTGGTCTTAAAAAAGTAGTTAATTTTGTCTAGGTT
SETD2EXON14_C_1_24.A	ACACTGACGACATGGTTCTACAATTTGTAAGCCATCAACACAGAGTATCTC	SETD2EXON14_C_1_24.B	TACGGTAGCAGAGACTTGGTCTTTCTTATTGTCATGTGAAAACAGTCAGTT
SETD2EXON14_W_1_23.A	ACACTGACGACATGGTTCTACAATAACCTCCCTCTGGTTTATTTTTGCG	SETD2EXON14_W_1_23.B	TACGGTAGCAGAGACTTGGTCTAGTTTCAAAAACAAAACGCTTAAGTCTT
SETD2EXON15_C_1_22.A	ACACTGACGACATGGTTCTACATGTCTGGGCTCTCTCTCTTCTTACCTATTAG	SETD2EXON15_C_1_22.B	TACGGTAGCAGAGACTTGGTCTTATACAGTTGATACATTGTATGATGGAG
SETD2EXON15_C_2_21.A	ACACTGACGACATGGTTCTACAAAAAAACTCACACAGGCCACTTACCTGT	SETD2EXON15_C_2_21.B	TACGGTAGCAGAGACTTGGTCTCAGAGATCAAACACCTGCCCCGAAG
SETD2EXON15_C_3_20.A	ACACTGACGACATGGTTCTACATCAGTAAAGTTGATACTCACTCATCAAAA	SETD2EXON15_C_3_20.B	TACGGTAGCAGAGACTTGGTCTCTATGAGCGGGGAACAAAAGGCC
SETD2EXON15_W_1_19.A	ACACTGACGACATGGTTCTACAAAAACAAACAAACCCCTTTTCCCTTAG	SETD2EXON15_W_1_19.B	TACGGTAGCAGAGACTTGGTCTCAGAAGAGGGTGGTGAAGGGAGCT
SETD2EXON15_W_2_18.A	ACACTGACGACATGGTTCTACAAGCAAACCTCAAATAAAGAGAAAAGGAAAC	SETD2EXON15_W_2_18.B	TACGGTAGCAGAGACTTGGTCTTCAACATCAGAAGTATATGACTTGGGTAC
SETD2EXON16_C_1_17.A	ACACTGACGACATGGTTCTACATCTTGCTCAACAACCTCCGGCGTTTC	SETD2EXON16_C_1_17.B	TACGGTAGCAGAGACTTGGTCTTTAGTCATGAGTGACATAACTTATTAG
SETD2EXON16_C_2_16.A	ACACTGACGACATGGTTCTACAGGTAACAGCAAAGGGATGATGCG	SETD2EXON16_C_2_16.B	TACGGTAGCAGAGACTTGGTCTACGAATTAAGACCGCAATAAAGTTCTAC
SETD2EXON16_C_3_15.A	ACACTGACGACATGGTTCTACAGGCTGAGCATGATCATAAGGAGCAGGA	SETD2EXON16_C_3_15.B	TACGGTAGCAGAGACTTGGTCTACCACTGCCATGACTCTCTTGGTTATAA
SETD2EXON16_C_4_14.A	ACACTGACGACATGGTTCTACAACCTACCATCACTCTGGGCCACATACT	SETD2EXON16_C_4_14.B	TACGGTAGCAGAGACTTGGTCTCTGCCACACCCAGCATGGA

SETD2EXON16_C_5_13.A	ACACTGACGACATGGTTCTACAGGAGAGTACTGCTGTACTGACAG	SETD2EXON16_C_5_13.B	TACGGTAGCAGAGACTTGGTCTTGTGGCAGCTCCTGTGGAAGTTCC
SETD2EXON16_C_6_12.A	ACACTGACGACATGGTTCTACAAAAGTTTCAGAATTAGTTACCTGTACAATT	SETD2EXON16_C_6_12.B	TACGGTAGCAGAGACTTGGTCTGAATTATAGTGTGGGATTCAAACCAACA
SETD2EXON16_C_7_11.A	ACACTGACGACATGGTTCTACACACAATAGATAACCAATACATATAAAGTTG	SETD2EXON16_C_7_11.B	TACGGTAGCAGAGACTTGGTCTGACATCACCTTATTACAGACAACCTCCACC
SETD2EXON16_W_1_10.A	ACACTGACGACATGGTTCTACAAACTTTTTGTGGTCTTATTTTCTTCTAG	SETD2EXON16_W_1_10.B	TACGGTAGCAGAGACTTGGTCTGATGTCAATCCAGGTTCTGCATCTGTTGC
SETD2EXON16_W_2_9.A	ACACTGACGACATGGTTCTACAGGTGGCTCAACGGGAGGCTCA	SETD2EXON16_W_2_9.B	TACGGTAGCAGAGACTTGGTCTAGCACCTTCCAGCATTAGGGTTGCT
SETD2EXON16_W_3_8.A	ACACTGACGACATGGTTCTACAAACAGGTTATCCATGCAGGCCTATG	SETD2EXON16_W_3_8.B	TACGGTAGCAGAGACTTGGTCTTGTGGCACCAGTGGTACTGGTGG
SETD2EXON16_W_4_7.A	ACACTGACGACATGGTTCTACACTTGGTGGGACATTCTACAGAACCCTTT	SETD2EXON16_W_4_7.B	TACGGTAGCAGAGACTTGGTCTTGTCCCTGAAGTGGGCCGGG
SETD2EXON16_W_5_6.A	ACACTGACGACATGGTTCTACAACACCAAGACTCCAGCGTTGCTGT	SETD2EXON16_W_5_6.B	TACGGTAGCAGAGACTTGGTCTACACCATAGACTGTTGGACATGTCTGCTCT
SETD2EXON16_W_6_5.A	ACACTGACGACATGGTTCTACATGCACAGTCTCAAGCAACCATATATTATCA	SETD2EXON16_W_6_5.B	TACGGTAGCAGAGACTTGGTCTTCTCCCTATACCAGATTTAACTAACA
SETD2EXON17_C_1_4.A	ACACTGACGACATGGTTCTACATGCTGCGGCTGGCTGTACCA	SETD2EXON17_C_1_4.B	TACGGTAGCAGAGACTTGGTCTATATCTTTAAGATTGTCCAACCTGGAAGT
SETD2EXON17_C_2_3.A	ACACTGACGACATGGTTCTACAATCCAAACCAAAAAGAAAACCTTCCAAAGA	SETD2EXON17_C_2_3.B	TACGGTAGCAGAGACTTGGTCTCAGGGGCAACAGATTTTACAGCTCATC
SETD2EXON17_W_1_2.A	ACACTGACGACATGGTTCTACAAATTTATTGATTTCTTATTTTATCTTTTAG	SETD2EXON17_W_1_2.B	TACGGTAGCAGAGACTTGGTCTTGAACATTTCTTACTGGCTGCAAGGGC
SETD2EXON17_W_2_1.A	ACACTGACGACATGGTTCTACAGTGACTACAATAGTTGCACCAGGGCAGC	SETD2EXON17_W_2_1.B	TACGGTAGCAGAGACTTGGTCTTAAAAATAAAAATAAACAAGAACACGTGAA
SETD2EXON18_C_1_48.A	ACACTGACGACATGGTTCTACACTTCCAGTTGGGAGGTAAGACAATGGTTTT	SETD2EXON18_C_1_48.B	TACGGTAGCAGAGACTTGGTCTATTTTTACATATTTAAGTGGGCTATTTTGT
SETD2EXON18_C_2_47.A	ACACTGACGACATGGTTCTACATCCCTTATAGTGGCAACTTCTTTGATTAA	SETD2EXON18_C_2_47.B	TACGGTAGCAGAGACTTGGTCTGATCTGCCGCCCCCTCTCC
SETD2EXON18_W_1_46.A	ACACTGACGACATGGTTCTACATGATCAAAAATGTGTGTGTTTTCTTTGTAG	SETD2EXON18_W_1_46.B	TACGGTAGCAGAGACTTGGTCTCTCTCTTACCTGTGATCACATGGTAGTA
SETD2EXON18_W_2_45.A	ACACTGACGACATGGTTCTACAACAGCTCGAGATCCAGAAGGGAAGATTTAT	SETD2EXON18_W_2_45.B	TACGGTAGCAGAGACTTGGTCTAATCCAGCAGCCTTCAAGCACAGTGA
SETD2EXON19_C_1_44.A	ACACTGACGACATGGTTCTACAGTTGGAGTCCCAGGTCATCTCAGC	SETD2EXON19_C_1_44.B	TACGGTAGCAGAGACTTGGTCTGTATTTTATGTATGTATGAGCAGTGTATG
SETD2EXON19_C_2_43.A	ACACTGACGACATGGTTCTACAATTTTTCAGAATAAAGAAAAAGAATCCCA	SETD2EXON19_C_2_43.B	TACGGTAGCAGAGACTTGGTCTAAGCCAGGAGATGATGCCAGCC
SETD2EXON19_W_1_42.A	ACACTGACGACATGGTTCTACAGACAGCATGGCTGTTTTGTCTCTTTCTAG	SETD2EXON19_W_1_42.B	TACGGTAGCAGAGACTTGGTCTCAAATGATCAGGAAATACATGTGTAAGCC
SETD2EXON2_C_1_16.A	ACACTGACGACATGGTTCTACATTTCCAGTTAAACTTTCTTTTGACCAAAT	SETD2EXON2_C_1_16.B	TACGGTAGCAGAGACTTGGTCTTGATCCACCCACCTGGGCTTCC
SETD2EXON2_W_1_15.A	ACACTGACGACATGGTTCTACATGGTCAGTTCTTTTATTGTTAGTATTGAAT	SETD2EXON2_W_1_15.B	TACGGTAGCAGAGACTTGGTCTTAATATAGAATCTGACTATCTGACTGCTT
SETD2EXON20_C_1_38.A	ACACTGACGACATGGTTCTACAAAACCTTACCTCTTTTCTGAATACTTCTTT	SETD2EXON20_C_1_38.B	TACGGTAGCAGAGACTTGGTCTAGGGGAAAGAAAGGAGGGTTCTGGGA
SETD2EXON20_C_2_37.A	ACACTGACGACATGGTTCTACACACACAAGGAACACTTGTGTTCTCTGC	SETD2EXON20_C_2_37.B	TACGGTAGCAGAGACTTGGTCTGACACCTCCAGTGAACCTAGCAAAGAAAAGC
SETD2EXON20_W_1_36.A	ACACTGACGACATGGTTCTACAGCACCAGTGTGTTTTCTCTCCATTTTCTAG	SETD2EXON20_W_1_36.B	TACGGTAGCAGAGACTTGGTCTTAGGACAAGAAATGAAAGGGTTCAGATTTA
SETD2EXON21_C_1_35.A	ACACTGACGACATGGTTCTACAATGTTTAAAGTCTTCAGTTGTGGTAATTCT	SETD2EXON21_C_1_35.B	TACGGTAGCAGAGACTTGGTCTTACTCACTACCTTTTCTAGTATTCTCTCA
SETD2EXON21_C_2_34.A	ACACTGACGACATGGTTCTACAATCTGACAAGAAAAAATACTTTCTA	SETD2EXON21_C_2_34.B	TACGGTAGCAGAGACTTGGTCTCTTACCAGAACTGACTGCAAAGTGG
SETD2EXON21_W_1_33.A	ACACTGACGACATGGTTCTACAAGCAACGTGTTCTTTTCTCTGCCTGC	SETD2EXON21_W_1_33.B	TACGGTAGCAGAGACTTGGTCTGTTGCCAGAACATTGCCTGGTGG
SETD2EXON22_C_1_32.A	ACACTGACGACATGGTTCTACACTTGGTTTTGTGTTTCACTTCTCATTGCA	SETD2EXON22_C_1_32.B	TACGGTAGCAGAGACTTGGTCTCAGCAGGCTGGATTACCACCCCT
SETD2EXON22_C_2_31.A	ACACTGACGACATGGTTCTACATAGAGTCTGTCTTACCTGACCACCCATCC	SETD2EXON22_C_2_31.B	TACGGTAGCAGAGACTTGGTCTAAGTACTGTAAGAACTCTGAGGACCTGGAG
SETD2EXON22_C_3_30.A	ACACTGACGACATGGTTCTACAGAGTTCATTTTTGTGGCCTCAGTTGACAT	SETD2EXON22_C_3_30.B	TACGGTAGCAGAGACTTGGTCTGAATTAGAGTACTGTTGGGCCAGGGT
SETD2EXON22_C_4_29.A	ACACTGACGACATGGTTCTACAGAGAAGACCCAGGTTTAAAGAGTGGAGTCA	SETD2EXON22_C_4_29.B	TACGGTAGCAGAGACTTGGTCTTACATCACCTGGGGAATTCAACCTGC
SETD2EXON22_C_5_28.A	ACACTGACGACATGGTTCTACAAGGAAAAACAATATTTTCAATATATTC	SETD2EXON22_C_5_28.B	TACGGTAGCAGAGACTTGGTCTGCAAGGGCTTAGAAAAGACCTGGC
SETD2EXON22_C_6_27.A	ACACTGACGACATGGTTCTACATTAGAATATTTACATGATAACAAATTAAC	SETD2EXON22_C_6_27.B	TACGGTAGCAGAGACTTGGTCTATGATCTGTATTATATTTAATGTATATGT
SETD2EXON22_C_7_26.A	ACACTGACGACATGGTTCTACATGATTTTATTTTTTACATAAAAAGTTTCA	SETD2EXON22_C_7_26.B	TACGGTAGCAGAGACTTGGTCTTGTAAAGACAGTTAAGTTCTCTGCAAG
SETD2EXON22_C_8_25.A	ACACTGACGACATGGTTCTACAGATTAACCTTGGACTTACACACCTAAGGC	SETD2EXON22_C_8_25.B	TACGGTAGCAGAGACTTGGTCTTAAATCACTTACTTTTCAATTTTTA
SETD2EXON22_W_1_24.A	ACACTGACGACATGGTTCTACACTGTGGTCTCTCTCTGTGCCCTG	SETD2EXON22_W_1_24.B	TACGGTAGCAGAGACTTGGTCTAGTGTCTCTTTGGGTTTGTAAACAGCCC
SETD2EXON22_W_2_23.A	ACACTGACGACATGGTTCTACAGAGTACATTAAGAAGTACATGCAGAAGTTT	SETD2EXON22_W_2_23.B	TACGGTAGCAGAGACTTGGTCTTACATCAGTAGCACAGTGTGACAGGG
SETD2EXON22_W_3_22.A	ACACTGACGACATGGTTCTACAGGGAGAGAAATCCTGTGGGCCTTT	SETD2EXON22_W_3_22.B	TACGGTAGCAGAGACTTGGTCTACCTCTGATGGCTTCAACCACATGCC

SETD2EXON22_W_4_21.A	ACACTGACGACATGGTTCTACACATCTACAAGTGATTACCTAGTTGTGAGCT	SETD2EXON22_W_4_21.B	TACGGTAGCAGAGACTTGGTCTCAGGGTAAAGGGTTGTGGGTGGGG
SETD2EXON22_W_5_20.A	ACACTGACGACATGGTTCTACACTTGGCGGTGCTGTGAGCGC	SETD2EXON22_W_5_20.B	TACGGTAGCAGAGACTTGGTCTAGTCTTCTGTGATCTAGCATGTAGAGGC
SETD2EXON22_W_6_19.A	ACACTGACGACATGGTTCTACAGGTTTTGTTGGTTTTGTTTTGCTTTTA	SETD2EXON22_W_6_19.B	TACGGTAGCAGAGACTTGGTCTGCAGTAAATCAATCTTATCAACATAGCACAA
SETD2EXON22_W_7_18.A	ACACTGACGACATGGTTCTACAAGCAGGCTGCCTTGTGGTTTTGG	SETD2EXON22_W_7_18.B	TACGGTAGCAGAGACTTGGTCTTCATTACACACAAATATGCTTGATTAACCT
SETD2EXON22_W_8_17.A	ACACTGACGACATGGTTCTACAATTAAGAAGTGGCATGTGTGTTCCCTAA	SETD2EXON22_W_8_17.B	TACGGTAGCAGAGACTTGGTCTCCAGTCATAGTAGGACCTGTGGAGAATGA
SETD2EXON3_C_1_14.A	ACACTGACGACATGGTTCTACATTGCCAGGCTGGAGCAAGTACA	SETD2EXON3_C_1_14.B	TACGGTAGCAGAGACTTGGTCTGGGAAATTTACACATGACCTGATGTGAG
SETD2EXON3_W_1_13.A	ACACTGACGACATGGTTCTACACATGGTGGCATGCACCTGTAGTCCC	SETD2EXON3_W_1_13.B	TACGGTAGCAGAGACTTGGTCTATAAACTGTGTTGATGCCTGTGTTTTGTT
SETD2EXON4_C_1_2.A	ACACTGACGACATGGTTCTACAGTGCCCTTGGGCAAAAATCGACTAGAAG	SETD2EXON4_C_1_2.B	TACGGTAGCAGAGACTTGGTCTTCATTCTCCAGTAAACATTTAACTGTG
SETD2EXON4_C_10_12.A	ACACTGACGACATGGTTCTACAATAGGATAAATTAGTTCTAGAGCCTCTCTC	SETD2EXON4_C_10_12.B	TACGGTAGCAGAGACTTGGTCTAGTGAGGATCTAGGGAAACCTTACGATCT
SETD2EXON4_C_11_11.A	ACACTGACGACATGGTTCTACAAGAAGTCTCTCGTCTGTATCTGTGTA	SETD2EXON4_C_11_11.B	TACGGTAGCAGAGACTTGGTCTCGACGGCGGAGCAGATCTCACT
SETD2EXON4_C_12_10.A	ACACTGACGACATGGTTCTACAGTCTCAGTTTTACAGTCCCGATCAGATTT	SETD2EXON4_C_12_10.B	TACGGTAGCAGAGACTTGGTCTTACGAGAGAGGACGCGCTATTCTCGG
SETD2EXON4_C_13_9.A	ACACTGACGACATGGTTCTACAGAATCCCAGTTTATTAGGGGGAGAACAACA	SETD2EXON4_C_13_9.B	TACGGTAGCAGAGACTTGGTCTTACAGAGACCTAAGGACATCATCTATTCT
SETD2EXON4_C_14_8.A	ACACTGACGACATGGTTCTACAATTAATTCTGTACAACAGAAAAGAAATTTT	SETD2EXON4_C_14_8.B	TACGGTAGCAGAGACTTGGTCTAGGACTTCAGAAAATGAAGCAATTAAGA
SETD2EXON4_C_15_7.A	ACACTGACGACATGGTTCTACAATTTGATGGAGCTGGAGACCCAGCC	SETD2EXON4_C_15_7.B	TACGGTAGCAGAGACTTGGTCTTCAAACCTATACCAAGTCTGATAAATTT
SETD2EXON4_C_16_6.A	ACACTGACGACATGGTTCTACACTTCACTTTAGATAAAGAGTCTAATTCCTT	SETD2EXON4_C_16_6.B	TACGGTAGCAGAGACTTGGTCTTAAAGATGATTAATAAAAATCTGAAAGA
SETD2EXON4_C_17_5.A	ACACTGACGACATGGTTCTACAATCAGAAGTCATTAACAGCATCAGTTTT	SETD2EXON4_C_17_5.B	TACGGTAGCAGAGACTTGGTCTTTATAACACATGATGCCATGATAGTATT
SETD2EXON4_C_18_4.A	ACACTGACGACATGGTTCTACAATGCAGCATGCAGGTATCATCCAAGTCT	SETD2EXON4_C_18_4.B	TACGGTAGCAGAGACTTGGTCTGAATCTGATTTGGCAACATTTGCACTTCT
SETD2EXON4_C_19_3.A	ACACTGACGACATGGTTCTACAAGTGGTCTTTAACTACTGTTTTGGAATA	SETD2EXON4_C_19_3.B	TACGGTAGCAGAGACTTGGTCTGGATTTGAGAATATTAGTAGTGCAAAGAA
SETD2EXON4_C_2_39.A	ACACTGACGACATGGTTCTACAATCACTTTGCTTTTCACTGCAAGTGCAGT	SETD2EXON4_C_2_39.B	TACGGTAGCAGAGACTTGGTCTTTCATCAAAGGACCAATGTTCAAAGGTGTT
SETD2EXON4_C_20_1.A	ACACTGACGACATGGTTCTACAATCTTCAACTGAAGGCTCAATATTTTC	SETD2EXON4_C_20_1.B	TACGGTAGCAGAGACTTGGTCTCATGTCTATGCCAGTTATGACTGTGGAT
SETD2EXON4_C_21_48.A	ACACTGACGACATGGTTCTACAAGTGTACCGATGCTGCTTATATTCTTC	SETD2EXON4_C_21_48.B	TACGGTAGCAGAGACTTGGTCTAGCAACCTTCTTTGTGTAACCTGGAAGCT
SETD2EXON4_C_22_47.A	ACACTGACGACATGGTTCTACATTTCAAGAGAGTTAGACTGTCCACCTTTAT	SETD2EXON4_C_22_47.B	TACGGTAGCAGAGACTTGGTCTAATTTGACAGATCACTCAAATTTGCATGT
SETD2EXON4_C_23_46.A	ACACTGACGACATGGTTCTACATGAATCAGGAAGTCACTACTACTTCTAC	SETD2EXON4_C_23_46.B	TACGGTAGCAGAGACTTGGTCTGCTTCTTCTTCTCAGAGTCTTCCACCAGG
SETD2EXON4_C_24_45.A	ACACTGACGACATGGTTCTACAGATTTCTGGTCTTCTTCTTTTTCAGGCAA	SETD2EXON4_C_24_45.B	TACGGTAGCAGAGACTTGGTCTTTTTAAAGCATGCAGGGAAAGAAACAATA
SETD2EXON4_C_25_44.A	ACACTGACGACATGGTTCTACAATAATGCATAAGTTACACCATCACTGTCTTC	SETD2EXON4_C_25_44.B	TACGGTAGCAGAGACTTGGTCTCAAGAGGCTCAAGAAGAAGGGAATTCATA
SETD2EXON4_C_26_43.A	ACACTGACGACATGGTTCTACAGCTATCATCCGAATCTGTATCTTCTGAATC	SETD2EXON4_C_26_43.B	TACGGTAGCAGAGACTTGGTCTTTTTCTTCTGTGATTTGAATTTAACCATG
SETD2EXON4_C_27_42.A	ACACTGACGACATGGTTCTACAGTCAAGATAGTGTCTATAACTTTGACTGCT	SETD2EXON4_C_27_42.B	TACGGTAGCAGAGACTTGGTCTGGCTCTTCTGAAAGTCAAATGATGAAAGT
SETD2EXON4_C_28_41.A	ACACTGACGACATGGTTCTACACTTCTCTGTTCTTTATGAAGGAAAACCTT	SETD2EXON4_C_28_41.B	TACGGTAGCAGAGACTTGGTCTATGGAAGAAAACAAGTCTTGTCTTCTCGG
SETD2EXON4_C_29_40.A	ACACTGACGACATGGTTCTACAGTCAAGATTTACATCTGTATGACTTGTACT	SETD2EXON4_C_29_40.B	TACGGTAGCAGAGACTTGGTCTATAGCAAGTAAAGCTGCTCAAAGTATGAT
SETD2EXON4_C_3_30.A	ACACTGACGACATGGTTCTACACAATCCACCCTTGACTTTGGTGGGGA	SETD2EXON4_C_3_30.B	TACGGTAGCAGAGACTTGGTCTACAAAGAAAACCTTGCAGAATAGGTTTCTC
SETD2EXON4_C_30_38.A	ACACTGACGACATGGTTCTACACTGTTGCCAAGACTTATTTGGGACATCTTC	SETD2EXON4_C_30_38.B	TACGGTAGCAGAGACTTGGTCTTCTTCTCATCTCAGAGTGTGGGGTTGAT
SETD2EXON4_C_31_37.A	ACACTGACGACATGGTTCTACAACCTAAGTTTCTGAGCTTCTGTATGAGTG	SETD2EXON4_C_31_37.B	TACGGTAGCAGAGACTTGGTCTGAAGAGCTGCCAATTTATTCTTCTGATTTT
SETD2EXON4_C_32_36.A	ACACTGACGACATGGTTCTACAGTAATCAGTGTCCACCATACTGTTCTGC	SETD2EXON4_C_32_36.B	TACGGTAGCAGAGACTTGGTCTTCTGTGAGATACCACATGTGGATGGCTTG
SETD2EXON4_C_33_35.A	ACACTGACGACATGGTTCTACACTCCTTCTTCTCACGATCATCTGTTAGGGA	SETD2EXON4_C_33_35.B	TACGGTAGCAGAGACTTGGTCTGCTTGTGGTGGACACAAGTATCAGAAAA
SETD2EXON4_C_34_34.A	ACACTGACGACATGGTTCTACAGTCTTAATGGAATGCTGCTTATTTTCAAGG	SETD2EXON4_C_34_34.B	TACGGTAGCAGAGACTTGGTCTTATGATCGAACTCAAGGACAAGTACCAGAT
SETD2EXON4_C_35_33.A	ACACTGACGACATGGTTCTACAACCATCACTTTCAGAATCACTCTATTTTC	SETD2EXON4_C_35_33.B	TACGGTAGCAGAGACTTGGTCTTTCAGAAAGACAAGGGTCAAGTCAAGC
SETD2EXON4_C_36_32.A	ACACTGACGACATGGTTCTACATCGCTGTGGGTCCTGAAGTCATC	SETD2EXON4_C_36_32.B	TACGGTAGCAGAGACTTGGTCTGATAGAGGGCTCTTAAAAAAGGAGGCAG
SETD2EXON4_C_37_31.A	ACACTGACGACATGGTTCTACAAAAAGAGTTAAATTTGTCAAACAAGTAT	SETD2EXON4_C_37_31.B	TACGGTAGCAGAGACTTGGTCTCCAGTTTCAAGTCAAGTGGTGGGC
SETD2EXON4_C_4_29.A	ACACTGACGACATGGTTCTACACTTCTGATCACTGCTGGTAATGGTCT	SETD2EXON4_C_4_29.B	TACGGTAGCAGAGACTTGGTCTATTGGTGATACCTTATCTACTGCAGAAGAA

SETD2EXON4_C_5_28.A	ACACTGACGACATGGTTCTACATATTGGTGTATGTGGCAAGGCCACTGG	SETD2EXON4_C_5_28.B	TACGGTAGCAGAGACTTGGTCTACCACAGCAGTAGCATCTCCACCTACT
SETD2EXON4_C_6_27.A	ACACTGACGACATGGTTCTACATATAGTGTCTGCTTAGTATCTGCTTCTAA	SETD2EXON4_C_6_27.B	TACGGTAGCAGAGACTTGGTCTACAACACTCTCATCACCAGCACCAGT
SETD2EXON4_C_7_26.A	ACACTGACGACATGGTTCTACAACCTAATCTAGAACTATCTGGAAATTTCTTC	SETD2EXON4_C_7_26.B	TACGGTAGCAGAGACTTGGTCTGAACCACCAATTATAATTGTACCAGAATCT
SETD2EXON4_C_8_25.A	ACACTGACGACATGGTTCTACATAAATCATGTGATCTTTGACTTGAAGAAGT	SETD2EXON4_C_8_25.B	TACGGTAGCAGAGACTTGGTCTAAAAAAGAAGATTCCCATATTGGGAAGGAT
SETD2EXON4_C_9_24.A	ACACTGACGACATGGTTCTACAGCTAAAATATTTATCATCTCTGTCTGTTTT	SETD2EXON4_C_9_24.B	TACGGTAGCAGAGACTTGGTCTGGTTCAGAATCTGATGAAGATTCTGTACGG
SETD2EXON4_W_1_13.A	ACACTGACGACATGGTTCTACAGTAGTAATTGCTTATTTTGTTCATTGTAG	SETD2EXON4_W_1_13.B	TACGGTAGCAGAGACTTGGTCTAAGGCTGAAGCTGAATGACACCTTCTGT
SETD2EXON4_W_10_23.A	ACACTGACGACATGGTTCTACATATTTCAAACCTTGAAGAGATACTCGGTAT	SETD2EXON4_W_10_23.B	TACGGTAGCAGAGACTTGGTCTAGGGGAGCTCTATGGTAGCGACG
SETD2EXON4_W_11_22.A	ACACTGACGACATGGTTCTACATCCAGGTCAGAACGATCTCATTATTATGAC	SETD2EXON4_W_11_22.B	TACGGTAGCAGAGACTTGGTCTAGAAGAGGAATGAGATGAGGTACGCCTTGA
SETD2EXON4_W_12_21.A	ACACTGACGACATGGTTCTACAGACTCAGAAGAAGAGTATAAGAAGACATAC	SETD2EXON4_W_12_21.B	TACGGTAGCAGAGACTTGGTCTTTTAGATTCTCTTTCTAGTTTTGAAGAATA
SETD2EXON4_W_13_20.A	ACACTGACGACATGGTTCTACATCTTACTTAGAGATGGAAGAAGAGGCAAG	SETD2EXON4_W_13_20.B	TACGGTAGCAGAGACTTGGTCTAAGGGTAGATTTATAACGGGAAGCACTACT
SETD2EXON4_W_14_19.A	ACACTGACGACATGGTTCTACACGACGAGGGTCATCATATTCTAAGCATGAC	SETD2EXON4_W_14_19.B	TACGGTAGCAGAGACTTGGTCTTCTACTACCTTTTGAACAAGGTGTCTGTAA
SETD2EXON4_W_15_18.A	ACACTGACGACATGGTTCTACAGAAGAAATCAAACAGTCTCATTCTTTTAGT	SETD2EXON4_W_15_18.B	TACGGTAGCAGAGACTTGGTCTTTCGGACTTAAAAATAGGCAATTCATCTAG
SETD2EXON4_W_16_17.A	ACACTGACGACATGGTTCTACAGATTAATGATTACCTACTTTAAAAAAG	SETD2EXON4_W_16_17.B	TACGGTAGCAGAGACTTGGTCTTGCCCGAGGAGATCCATTTATATTTAATTC
SETD2EXON4_W_17_16.A	ACACTGACGACATGGTTCTACAAGATCAATTAAGAAGTTTTTGTCCATA	SETD2EXON4_W_17_16.B	TACGGTAGCAGAGACTTGGTCTATTTGATGAAGCATGCATGCTTTGACCAA
SETD2EXON4_W_18_15.A	ACACTGACGACATGGTTCTACAGATAGTGTGACTGGATCGGAATTATCCCT	SETD2EXON4_W_18_15.B	TACGGTAGCAGAGACTTGGTCTTTTATCTTGGTGTGGTGACACCAGAGGTTT
SETD2EXON4_W_19_14.A	ACACTGACGACATGGTTCTACAAGAAGTCAAGAAAGCCATTTAGAGAAACA	SETD2EXON4_W_19_14.B	TACGGTAGCAGAGACTTGGTCTATCGTTCAAAGTACAGTATATGTCTGAATC
SETD2EXON4_W_2_2.A	ACACTGACGACATGGTTCTACAAAAACAAAGTTAATTTGAAGAAGAGGGA	SETD2EXON4_W_2_2.B	TACGGTAGCAGAGACTTGGTCTTCCATTTTCTTTTAGGAGTCGAGTCTAC
SETD2EXON4_W_20_12.A	ACACTGACGACATGGTTCTACAGATACGAGGGTTCTTGTCTGCAAAACCAA	SETD2EXON4_W_20_12.B	TACGGTAGCAGAGACTTGGTCTTCTACTATCACATAACTGGTTTTGATTC
SETD2EXON4_W_21_11.A	ACACTGACGACATGGTTCTACATCTTCAAATAGCTTTATGAATGTGCAATTTG	SETD2EXON4_W_21_11.B	TACGGTAGCAGAGACTTGGTCTAATACCTGAACCTCCAATAGGTTGATATAA
SETD2EXON4_W_22_10.A	ACACTGACGACATGGTTCTACAAGTTCAGCTTCTGTTAATCATTTTGATGAT	SETD2EXON4_W_22_10.B	TACGGTAGCAGAGACTTGGTCTCTGAACTTTTTTACTCTTTAGCACTGC
SETD2EXON4_W_23_9.A	ACACTGACGACATGGTTCTACATGCGGAGAGAACATCTCCAGTTCTG	SETD2EXON4_W_23_9.B	TACGGTAGCAGAGACTTGGTCTCAAACATTTCCAGATAAACCATTATTACG
SETD2EXON4_W_24_8.A	ACACTGACGACATGGTTCTACAGGAAGGGATTTGCTTCCAGGGAGAACAA	SETD2EXON4_W_24_8.B	TACGGTAGCAGAGACTTGGTCTTACAACCTCTGAGTCATCAGAAGTATGCAC
SETD2EXON4_W_25_7.A	ACACTGACGACATGGTTCTACATCTTTAGATGAAAGAGGAGAAGGAGGACAT	SETD2EXON4_W_25_7.B	TACGGTAGCAGAGACTTGGTCTAGAATAATCTTATGAACGTAGACACAAT
SETD2EXON4_W_26_6.A	ACACTGACGACATGGTTCTACAAGTGTGACAGTAGTGGTCATGCCCC	SETD2EXON4_W_26_6.B	TACGGTAGCAGAGACTTGGTCTGGGCAAGTAGAATCTTTGGCACAACCA
SETD2EXON4_W_27_5.A	ACACTGACGACATGGTTCTACAAGTATTCCAAGAAACCGTCTCCAGTCTGTT	SETD2EXON4_W_27_5.B	TACGGTAGCAGAGACTTGGTCTACTTTCAAATTTTTCTCATACAAATGTCT
SETD2EXON4_W_28_4.A	ACACTGACGACATGGTTCTACACATTTGGGAAGATGAGAGATTGGAGTCAAGG	SETD2EXON4_W_28_4.B	TACGGTAGCAGAGACTTGGTCTTTCAGGCAGGCGATTATCTATTTGTTTTCT
SETD2EXON4_W_29_3.A	ACACTGACGACATGGTTCTACAACCTCGGAAATTTCTTTACACAGTCCAGT	SETD2EXON4_W_29_3.B	TACGGTAGCAGAGACTTGGTCTTGTCTGCTGCTAGAAGGATTTTGGCTTTCAC
SETD2EXON4_W_3_41.A	ACACTGACGACATGGTTCTACAACCTCAAACCTCCAGCTGTACCTCT	SETD2EXON4_W_3_41.B	TACGGTAGCAGAGACTTGGTCTAGTAGCCAGCAGTGGCCTGGATG
SETD2EXON4_W_30_1.A	ACACTGACGACATGGTTCTACACCTCTGGGTCACCCAAATTCAGAGGAAA	SETD2EXON4_W_30_1.B	TACGGTAGCAGAGACTTGGTCTGGAAGAAAAACTCAATCTGTTTTTCCAG
SETD2EXON4_W_31_48.A	ACACTGACGACATGGTTCTACAACCACTTTCAAACACAGCCAGATAGTAGA	SETD2EXON4_W_31_48.B	TACGGTAGCAGAGACTTGGTCTCCATAGCTACTGTGAGTTGCTGATACGT
SETD2EXON4_W_32_47.A	ACACTGACGACATGGTTCTACATGGGACTTCTCTCAAGAAAAGCCTTCTACC	SETD2EXON4_W_32_47.B	TACGGTAGCAGAGACTTGGTCTACAACCCAGTTCAGGAGGCTTAC
SETD2EXON4_W_33_46.A	ACACTGACGACATGGTTCTACATGGCAAGGCAATGGTTACTGGGATCC	SETD2EXON4_W_33_46.B	TACGGTAGCAGAGACTTGGTCTGGATAGAAGAAATTTATCGGACTGGTCTGA
SETD2EXON4_W_34_45.A	ACACTGACGACATGGTTCTACAATTTGGGATCAACAGGATGGATCCATTTT	SETD2EXON4_W_34_45.B	TACGGTAGCAGAGACTTGGTCTTTTATATCATTTTTTTTCTAAGTTTTTTGA
SETD2EXON4_W_35_44.A	ACACTGACGACATGGTTCTACAACCTTAGCTGTGAATGAAAAGAAGATTTT	SETD2EXON4_W_35_44.B	TACGGTAGCAGAGACTTGGTCTGGGCACTGATGTCTCTCCCTGCTC
SETD2EXON4_W_36_43.A	ACACTGACGACATGGTTCTACAGAGCTTCAAGACAGAAAGAAGATTAGAGTG	SETD2EXON4_W_36_43.B	TACGGTAGCAGAGACTTGGTCTATTTTCTTCAATAAGATCAAAGTAACATGG
SETD2EXON4_W_37_42.A	ACACTGACGACATGGTTCTACATGGAAGGAATGTGCCAAGCAAGGGA	SETD2EXON4_W_37_42.B	TACGGTAGCAGAGACTTGGTCTCTCTTCTATGTGTTTAACTCTACAGTCT
SETD2EXON4_W_4_40.A	ACACTGACGACATGGTTCTACAGGCAAAATTCATTTAAGAAACATCTGCTT	SETD2EXON4_W_4_40.B	TACGGTAGCAGAGACTTGGTCTGGCTTGGCAGGTGGAGGCG
SETD2EXON4_W_5_39.A	ACACTGACGACATGGTTCTACATCAAACTGTAGACTCACCCCTCTC	SETD2EXON4_W_5_39.B	TACGGTAGCAGAGACTTGGTCTTTTCAAGATCTAAGTCTACATCTACTGG
SETD2EXON4_W_6_38.A	ACACTGACGACATGGTTCTACAACAGTTCTAATGGCAGCACCAGTACCC	SETD2EXON4_W_6_38.B	TACGGTAGCAGAGACTTGGTCTTGAGGAAATATCTGCTTGGCTCATTCAATAT

SETD2EXON4_W_7_37.A	ACACTGACGACATGGTTCTACATCTAATAGTTTAGAAGAACACGTAACCTCAA	SETD2EXON4_W_7_37.B	TACGGTAGCAGAGACTTGGTCTAAGAAAGATGCCTTCAGATTGTGAGGATTT
SETD2EXON4_W_8_36.A	ACACTGACGACATGGTTCTACACTGAGCTGTAAAAAACAGGTTCTAAGAAG	SETD2EXON4_W_8_36.B	TACGGTAGCAGAGACTTGGTCTTTTTAAAGGTGCTGAGCTCTTTTTAAAATC
SETD2EXON4_W_9_35.A	ACACTGACGACATGGTTCTACAAAATTTTCAGCAAGCATTGAAAAGGAAGA	SETD2EXON4_W_9_35.B	TACGGTAGCAGAGACTTGGTCTCTCTTTCTGATCTACATCGGGAAGATAC
SETD2EXON5_C_1_34.A	ACACTGACGACATGGTTCTACAGCTATTTACCTTGAGCTCTTTCATCTTTA	SETD2EXON5_C_1_34.B	TACGGTAGCAGAGACTTGGTCTCTAATGAGATTTGGCAGATATTTGATTATA
SETD2EXON5_C_2_33.A	ACACTGACGACATGGTTCTACAATCTTCATTGATAATTTCAATATTTAGAGA	SETD2EXON5_C_2_33.B	TACGGTAGCAGAGACTTGGTCTCGAATGCGAGTGTGAGTGTACACCTC
SETD2EXON5_W_1_32.A	ACACTGACGACATGGTTCTACAATCAGTTTTTATGAAATTTTACCCAATAG	SETD2EXON5_W_1_32.B	TACGGTAGCAGAGACTTGGTCTGTATTCTAATTTACTTACCATTCAATCATG
SETD2EXON5_W_2_31.A	ACACTGACGACATGGTTCTACAATGTGGGAAGATTGTCTTAATCGTCTTCT	SETD2EXON5_W_2_31.B	TACGGTAGCAGAGACTTGGTCTAAGTGTCTACTATACTTTTTGCTTGTAGT
SETD2EXON6_C_1_30.A	ACACTGACGACATGGTTCTACATTTCTGTGAGTATGACTTCCACATCTGCA	SETD2EXON6_C_1_30.B	TACGGTAGCAGAGACTTGGTCTTATATGTAGTTATACTAACACATTTTTTCA
SETD2EXON6_C_2_29.A	ACACTGACGACATGGTTCTACATGCCACTGCACTCCAGTCTGGG	SETD2EXON6_C_2_29.B	TACGGTAGCAGAGACTTGGTCTTCCAATAGACGGTTTCAGAGAAAACAGCA
SETD2EXON6_W_1_28.A	ACACTGACGACATGGTTCTACAGAATTAATTTCTCTTTTTCTCATTTCAG	SETD2EXON6_W_1_28.B	TACGGTAGCAGAGACTTGGTCTGGTAATTAAGAAAGAACTTACGAAGGAAGG
SETD2EXON6_W_2_27.A	ACACTGACGACATGGTTCTACAGAAAGGCTGGGGCTTGAGAGCTGC	SETD2EXON6_W_2_27.B	TACGGTAGCAGAGACTTGGTCTAGGCTAAGGCAGGAGAATTTGCTTGAATCC
SETD2EXON7_C_1_26.A	ACACTGACGACATGGTTCTACAATGTTTTGTTTCTGTCATACTCCTCACT	SETD2EXON7_C_1_26.B	TACGGTAGCAGAGACTTGGTCTTATTTAAATTCCTATTTTTGCCTGAGCA
SETD2EXON7_C_2_25.A	ACACTGACGACATGGTTCTACAAAAAATAAATCAATCAGTATCAA	SETD2EXON7_C_2_25.B	TACGGTAGCAGAGACTTGGTCTGGTACTCGATCATAAAGAGTTTAAAGCTCG
SETD2EXON7_W_1_24.A	ACACTGACGACATGGTTCTACAAAGTCTATTTTTCTTTTGGTTTGCAG	SETD2EXON7_W_1_24.B	TACGGTAGCAGAGACTTGGTCTAAGGCAACATATCCAAGCTGCTTACCTCA
SETD2EXON7_W_2_23.A	ACACTGACGACATGGTTCTACACCATTACTATTTTCTGCGCCTGAAGAATGA	SETD2EXON7_W_2_23.B	TACGGTAGCAGAGACTTGGTCTCGAGATCTTGCCACTGCACCTCCAGC
SETD2EXON8_C_1_22.A	ACACTGACGACATGGTTCTACAACCTCACTTACTTTTTGGGTTTCACAATT	SETD2EXON8_C_1_22.B	TACGGTAGCAGAGACTTGGTCTGATGCATAAGAGATGTATGTAGTTTTGCAG
SETD2EXON8_C_2_21.A	ACACTGACGACATGGTTCTACACTTAAATAATAAAGTAGAATAGGAAAAGG	SETD2EXON8_C_2_21.B	TACGGTAGCAGAGACTTGGTCTCTCGTTTTCATGAATCACAGCTGTGAACCA
SETD2EXON8_W_1_20.A	ACACTGACGACATGGTTCTACATTTAATTTCTTAAATGATCCTCTTCTCCCAG	SETD2EXON8_W_1_20.B	TACGGTAGCAGAGACTTGGTCTGGGATCTAAAATTAATGGTCAGAACAGCAA
SETD2EXON9_C_1_19.A	ACACTGACGACATGGTTCTACACTGGAAGTATGATCAAACGTTAACTCTGA	SETD2EXON9_C_1_19.B	TACGGTAGCAGAGACTTGGTCTTATATATGCGCACACACACACACACAC
SETD2EXON9_C_2_18.A	ACACTGACGACATGGTTCTACAAGTTAAGAGTAAATATACTTTTAAAGTAAT	SETD2EXON9_C_2_18.B	TACGGTAGCAGAGACTTGGTCTTTTTTACCACCAAAGTGGTCTTCTCAGGC
SETD2EXON9_W_1_17.A	ACACTGACGACATGGTTCTACAAAATTTCTTTGTTTTCAAACATCATCTCAG	SETD2EXON9_W_1_17.B	TACGGTAGCAGAGACTTGGTCTAACAGCCTATTTCCCATCAGAAGCAGC
TP53EXON1_C_1_24.A	ACACTGACGACATGGTTCTACACAATGGATCCACTCACAGTTTCCATAGGTC	TP53EXON1_C_1_24.B	TACGGTAGCAGAGACTTGGTCTCAGGCCAGGTGACCCAGGG
TP53EXON1_C_2_25.A	ACACTGACGACATGGTTCTACAACAGTTGTTTTTTCAGGAAGTCTGAAAGACAA	TP53EXON1_C_2_25.B	TACGGTAGCAGAGACTTGGTCTGAGCCCCCTCTGAGTCAAGAAACATTT
TP53EXON1_W_1_26.A	ACACTGACGACATGGTTCTACAAGCAGCCAGACTGCCTTCCGG	TP53EXON1_W_1_26.B	TACGGTAGCAGAGACTTGGTCTTCCACAGGCTCTGCTAGGGGG
TP53EXON10_C_1_4.A	ACACTGACGACATGGTTCTACAGGAGAATGTCAGTCTGAGTCAAGGCC	TP53EXON10_C_1_4.B	TACGGTAGCAGAGACTTGGTCTAGGCCCTTCAAAGCATTGGTCAAGG
TP53EXON10_C_10_1.A	ACACTGACGACATGGTTCTACACAGAATGTAAAAGATGTTGACCCTTCCAGC	TP53EXON10_C_10_1.B	TACGGTAGCAGAGACTTGGTCTATGCCACCATGGCCAGCCAAC
TP53EXON10_C_11_2.A	ACACTGACGACATGGTTCTACATCACCCCTCAGACACACAGGTGGC	TP53EXON10_C_11_2.B	TACGGTAGCAGAGACTTGGTCTGGGATTACAATTTGAGCCACCACGT
TP53EXON10_C_12_3.A	ACACTGACGACATGGTTCTACACCTCCCGAACCCGGGCACT	TP53EXON10_C_12_3.B	TACGGTAGCAGAGACTTGGTCTTATATCGATCTCTTATTTTACAATAAAAC
TP53EXON10_C_2_5.A	ACACTGACGACATGGTTCTACATGGAAGTCTGGGTGCTTCTGAGC	TP53EXON10_C_2_5.B	TACGGTAGCAGAGACTTGGTCTCTCCGCCATAAAAACTCATGTTCAAGAC
TP53EXON10_C_3_6.A	ACACTGACGACATGGTTCTACAACATCCCTCACAGTAAAAACCTTAAATCT	TP53EXON10_C_3_6.B	TACGGTAGCAGAGACTTGGTCTTTTTGGGTCTTTGAACCTTGTCTGCAA
TP53EXON10_C_4_7.A	ACACTGACGACATGGTTCTACAGAGAAAATTAACAGTGAGGGACAGCTTCC	TP53EXON10_C_4_7.B	TACGGTAGCAGAGACTTGGTCTAGGAGGATGGGGAGTAGGACATACCAGC
TP53EXON10_C_5_8.A	ACACTGACGACATGGTTCTACAGACCCATGTAATAAAAGGTGGTTTCAAGG	TP53EXON10_C_5_8.B	TACGGTAGCAGAGACTTGGTCTGGTAGGGGCCACTTCCACCGT
TP53EXON10_C_6_9.A	ACACTGACGACATGGTTCTACAGGCTGGGCCAGCAGAGACTTGA	TP53EXON10_C_6_9.B	TACGGTAGCAGAGACTTGGTCTGTGAGGGTAAATGAAATAATGTACATCTGG
TP53EXON10_C_7_10.A	ACACTGACGACATGGTTCTACAAAACAAGTCTTGGTGGATCCAGATCATCAT	TP53EXON10_C_7_10.B	TACGGTAGCAGAGACTTGGTCTTTTCTACAGTTGGGCAGCTGGTTAGGTAGA
TP53EXON10_C_8_11.A	ACACTGACGACATGGTTCTACAAGGCTGCAGTAAGCCAAGATCACGC	TP53EXON10_C_8_11.B	TACGGTAGCAGAGACTTGGTCTCCACACCTGGAGGATTTTCTCTTGTAT
TP53EXON10_C_9_12.A	ACACTGACGACATGGTTCTACAGCAACACTGTGAGACCCCATCTTACAA	TP53EXON10_C_9_12.B	TACGGTAGCAGAGACTTGGTCTGGGTCTCGCTTTTGTGCCAGG
TP53EXON10_W_1_15.A	ACACTGACGACATGGTTCTACAATCTCTCTCCCTGCTTCTGTCTCTAC	TP53EXON10_W_1_15.B	TACGGTAGCAGAGACTTGGTCTCCAAAATGGCAGGGGAGGGAGA
TP53EXON10_W_10_13.A	ACACTGACGACATGGTTCTACACCAGGCTGGTCTCAAACCTCTGGG	TP53EXON10_W_10_13.B	TACGGTAGCAGAGACTTGGTCTAAATGGGATATAAAAGGGAGAAGGAGGGG
TP53EXON10_W_11_14.A	ACACTGACGACATGGTTCTACACAAGCAGATCTGCATTTTACCCACC	TP53EXON10_W_11_14.B	TACGGTAGCAGAGACTTGGTCTTCCAGCACCTCTCACTCAC

TP53EXON10_W_2_16.A	ACACTGACGACATGGTTCTACAACCTCTTGTTCCCACTGACAGCCTC	TP53EXON10_W_2_16.B	TACGGTAGCAGAGACTTGGTCTCCCCACAACAAAACACCAAGTGCAGG
TP53EXON10_W_3_17.A	ACACTGACGACATGGTTCTACATTTGCTTTGTCCCGGGGCTCCA	TP53EXON10_W_3_17.B	TACGGTAGCAGAGACTTGGTCTTAAGAATGTGGCTGATTGTAACCTAACCCCTT
TP53EXON10_W_4_18.A	ACACTGACGACATGGTTCTACATTGGGAGATGTAAGAAATGTTCTTGCAAGT	TP53EXON10_W_4_18.B	TACGGTAGCAGAGACTTGGTCTAATGCACTCTGTGAGGTAGGTGCAAAATGC
TP53EXON10_W_5_19.A	ACACTGACGACATGGTTCTACATAACTCAAGGCCATATCTGTGAAATGCT	TP53EXON10_W_5_19.B	TACGGTAGCAGAGACTTGGTCTTACCAACCCACCCGACCAACAGGG
TP53EXON10_W_6_20.A	ACACTGACGACATGGTTCTACATAGAACTTGACCCCTTGAGGGTGCT	TP53EXON10_W_6_20.B	TACGGTAGCAGAGACTTGGTCTGATGGGGTGAGATTCTCTTTAGTACTAA
TP53EXON10_W_7_21.A	ACACTGACGACATGGTTCTACAAAACCTGTCTGACAACTCTTGTTGTAAC	TP53EXON10_W_7_21.B	TACGGTAGCAGAGACTTGGTCTAGTCTCAAAGAAAAGAAAAAAAAAAAAA
TP53EXON10_W_8_22.A	ACACTGACGACATGGTTCTACATATGCTCAGGGTCAATTTCTTTTTCTTTT	TP53EXON10_W_8_22.B	TACGGTAGCAGAGACTTGGTCTGAACTGTGGTCCAGCTACTCCG
TP53EXON10_W_9_23.A	ACACTGACGACATGGTTCTACATTGCTCCCGGCTCGAGCA	TP53EXON10_W_9_23.B	TACGGTAGCAGAGACTTGGTCTGCACTCTGGGAGGCTGAGACAGG
TP53EXON2_C_1_27.A	ACACTGACGACATGGTTCTACAAGCCCCCAGCCCCCAGCC	TP53EXON2_C_1_27.B	TACGGTAGCAGAGACTTGGTCTCCACCACCCCAACCCCAACC
TP53EXON2_W_1_28.A	ACACTGACGACATGGTTCTACATGGGACTGACTTTCTGCTCTGTCTTTAG	TP53EXON2_W_1_28.B	TACGGTAGCAGAGACTTGGTCTTGGGACGGCAAGGGGGACT
TP53EXON3_C_1_30.A	ACACTGACGACATGGTTCTACATTCATCTGGACCTGGGTCTTCAGTGAACC	TP53EXON3_C_1_30.B	TACGGTAGCAGAGACTTGGTCTGGGACCTGGAGGGCTGGG
TP53EXON3_C_2_31.A	ACACTGACGACATGGTTCTACAGTTTTCTGGGAAGGGACAGAAGATGACA	TP53EXON3_C_2_31.B	TACGGTAGCAGAGACTTGGTCTTGTGCTGTCCCGGACGATATTGAA
TP53EXON3_C_3_32.A	ACACTGACGACATGGTTCTACATACGGCCAGGCATTGAAGTCTCATGG	TP53EXON3_C_3_32.B	TACGGTAGCAGAGACTTGGTCTGCGGCCCTGCACCAGCCCC
TP53EXON3_W_1_33.A	ACACTGACGACATGGTTCTACACCTCTGACTGCTTTTTACCCCATCTACAG	TP53EXON3_W_1_33.B	TACGGTAGCAGAGACTTGGTCTGGGTGTAGGAGCTGCTGGTGCA
TP53EXON3_W_2_34.A	ACACTGACGACATGGTTCTACAGCTCCAGAATGCCAGAGGCTGC	TP53EXON3_W_2_34.B	TACGGTAGCAGAGACTTGGTCTCAGACTTGGTGTCCAGAATGC
TP53EXON3_W_3_35.A	ACACTGACGACATGGTTCTACATACCAGGGCAGCTACGGTTTTCCG	TP53EXON3_W_3_35.B	TACGGTAGCAGAGACTTGGTCTACAGGAAGCCAAAGGGTGAAGAGGAATC
TP53EXON4_C_1_36.A	ACACTGACGACATGGTTCTACAGGTCCGGGCGGGGGTGTGG	TP53EXON4_C_1_36.B	TACGGTAGCAGAGACTTGGTCTCATGTTTCTTTGCTGCGCTCTCCA
TP53EXON4_C_2_37.A	ACACTGACGACATGGTTCTACATCGTCTCCAGCCCCAGCTGC	TP53EXON4_C_2_37.B	TACGGTAGCAGAGACTTGGTCTCACTGGCCAAGACTGCCCTGT
TP53EXON4_C_3_38.A	ACACTGACGACATGGTTCTACAGTCATCCAAATACTCCACACGCAAATTTCC	TP53EXON4_C_3_38.B	TACGGTAGCAGAGACTTGGTCTTCCCCCACCATGAGCGCTG
TP53EXON4_W_1_39.A	ACACTGACGACATGGTTCTACATCAACTCTGTCTCTCTCTCTCTACAG	TP53EXON4_W_1_39.B	TACGGTAGCAGAGACTTGGTCTGCGCCTCACAACTCCGTCATG
TP53EXON4_W_2_40.A	ACACTGACGACATGGTTCTACACGCGTCCGCGCCATGGCCAT	TP53EXON4_W_2_40.B	TACGGTAGCAGAGACTTGGTCTCAGACCTAAGAGCAATCAGTGAGGAATCAG
TP53EXON5_C_1_41.A	ACACTGACGACATGGTTCTACACCACATATGTCGAAAAGTGTCTGTGCAT	TP53EXON5_C_1_41.B	TACGGTAGCAGAGACTTGGTCTATAGCGATGGTGAGCAGCTGGGG
TP53EXON5_C_2_42.A	ACACTGACGACATGGTTCTACAATAAGCAGCAGGAGAAAGCCCCC	TP53EXON5_C_2_42.B	TACGGTAGCAGAGACTTGGTCTTGAAGGAAATTTGCGTGTGGAGATTTGG
TP53EXON5_W_1_43.A	ACACTGACGACATGGTTCTACAGGCCCTGATTCTCACTGATTGTCTCT	TP53EXON5_W_1_43.B	TACGGTAGCAGAGACTTGGTCTAACCCCTCTCCAGAGACCCC
TP53EXON6_C_1_44.A	ACACTGACGACATGGTTCTACAGATGGTGAGGATGGGCCTCCGG	TP53EXON6_C_1_44.B	TACGGTAGCAGAGACTTGGTCTTCTAAAAAAGAGGCCTCCCT
TP53EXON6_C_2_45.A	ACACTGACGACATGGTTCTACATAGTATGGAAGAAATCGGTAAGAGGTGGGC	TP53EXON6_C_2_45.B	TACGGTAGCAGAGACTTGGTCTAACTACATGTGTAACAGTTCTGTCATGGGC
TP53EXON6_W_1_46.A	ACACTGACGACATGGTTCTACAGCCTCATCTGGGCTGTGTTATCTCC	TP53EXON6_W_1_46.B	TACGGTAGCAGAGACTTGGTCTCAGCAGGCCAGTGTGCAGG
TP53EXON7_C_1_47.A	ACACTGACGACATGGTTCTACATTGCGGAGATTCTCTCTCTGTGCG	TP53EXON7_C_1_47.B	TACGGTAGCAGAGACTTGGTCTGGGAGTAGATGGAGCCTGGTTTTTAAT
TP53EXON7_C_2_48.A	ACACTGACGACATGGTTCTACAAGGTGATAAAAGTGAATCTGAGGCATAACT	TP53EXON7_C_2_48.B	TACGGTAGCAGAGACTTGGTCTGGTGGTGTGTTGTGCTGTCTCT
TP53EXON7_W_1_1.A	ACACTGACGACATGGTTCTACACTCTGCTCTCTTTCTATCTCTGAGTAG	TP53EXON7_W_1_1.B	TACGGTAGCAGAGACTTGGTCTCTGCTTCTTACCTGCTTAGTGC
TP53EXON7_W_2_2.A	ACACTGACGACATGGTTCTACAGAAAGGGAGCCTACCACGAGC	TP53EXON7_W_2_2.B	TACGGTAGCAGAGACTTGGTCTTCTTTGGCTGGGAGAGGAGCTG
TP53EXON8_C_1_3.A	ACACTGACGACATGGTTCTACATCCAAGACTTAGTACCTGAAGGGTGAAT	TP53EXON8_C_1_3.B	TACGGTAGCAGAGACTTGGTCTAAGCAAGCAGACAAGAAGCGGTG
TP53EXON8_C_2_4.A	ACACTGACGACATGGTTCTACAAGCCATTGTCTTTGAGGCATCACTGC	TP53EXON8_C_2_4.B	TACGGTAGCAGAGACTTGGTCTAGCCAAGAAGAAACCACTGGATGGAGAA
TP53EXON8_W_1_5.A	ACACTGACGACATGGTTCTACATTTATCACCTTCTGCTCTTCTCTAG	TP53EXON8_W_1_5.B	TACGGTAGCAGAGACTTGGTCTCAGTCAAGAAGAAACCGCATTTTGTAGTGT
TP53EXON9_C_1_6.A	ACACTGACGACATGGTTCTACACCCCTGGCTCTTCCAG	TP53EXON9_C_1_6.B	TACGGTAGCAGAGACTTGGTCTGTCATAAAGTCAAACAATTGTAACCTGAA
TP53EXON9_C_2_7.A	ACACTGACGACATGGTTCTACATCAGCTGCCTTTGACCATGAAGGCA	TP53EXON9_C_2_7.B	TACGGTAGCAGAGACTTGGTCTGAGAGCTGAATGAGGCCTTGGAACT
TP53EXON9_W_1_8.A	ACACTGACGACATGGTTCTACACTTACTCTCCCTCTCTGTTGCTG	TP53EXON9_W_1_8.B	TACGGTAGCAGAGACTTGGTCTGAAGGCAGGGGAGTAGGGCCAG