

Supplementary Table S2 | MDSs identified in HeLa cells

MDS (HeLa)	Chromosome	Start	End	MiDASeq signal (FC)	The closest gene	Known CFS
1	chr1	71200000	72600000	1.146	NEGR1-IT1	FRA1C and FRA1L
2	chr1	97400000	97500000	0.361	DPYD-AS1	FRA1M
3	chr1	174600000	174800000	0.590	RABGAP1L	FRA1G
4	chr1	245900000	246100000	0.527	SMYD3	FRA1I
5	chr2	14900000	15400000	0.538	NBAS	FRA2C
6	chr2	18700000	18900000	0.382	NT5C1B	FRA2C
7	chr2	63300000	63500000	0.336	WDPCP	FRA2S
8	chr2	77800000	78400000	0.881	LINC01851	FRA2S
9	chr2	81600000	81800000	0.406	LINC01815	FRA2L and FRA2S
10	chr2	132800000	132900000	0.390	NCKAP5-AS1	FRA2S
11	chr2	141000000	142300000	0.750	LRP1B	FRA2K and FRA2S
12	chr2	148000000	148200000	0.452	ORC4	FRA2K and FRA2S
13	chr2	153600000	154300000	1.001	GALNT13	FRA2S
14	chr2	186000000	186500000	0.797	LINC01473	FRA2H
15	chr2	204800000	205400000	0.982	PARD3B	FRA2I
16	chr3	3500000	4300000	0.621	LOC100130207	NA
17	chr3	6600000	7000000	0.587	GRM7-AS3	NA
18	chr3	17300000	17400000	0.347	TBC1D5	NA
19	chr3	20400000	20500000	0.309	LOC101927829	NA
20	chr3	29500000	29700000	0.411	RBMS3	NA
21	chr3	54200000	54700000	0.521	CACNA2D3	NA
22	chr3	61800000	62200000	0.661	PTPRG	FRA3B
23	chr3	67200000	68300000	0.973	MIR4272	NA
24	chr3	114600000	115000000	0.454	MIR4796	NA
25	chr3	144000000	144400000	1.056	DIPK2A	NA
26	chr3	174800000	175200000	0.382	NAALADL2-AS3	NA
27	chr4	12800000	13200000	0.668	RAB28	FRA4A and FRA4D
28	chr4	19000000	19800000	2.036	SLIT2	FRA4D
29	chr4	97800000	98200000	0.408	STPG2	FRA4E
30	chr4	144800000	145000000	0.467	GYPA	NA
31	chr5	12200000	12700000	0.661	LINC01194	NA
32	chr5	58900000	59600000	0.557	PDE4D	FRA5H
33	chr5	65600000	65800000	0.342	SHLD3	NA
34	chr5	93800000	94700000	0.599	KIAA0825	FRA5B and FRA5D
35	chr5	104200000	104300000	0.323	NUDT12	FRA5F
36	chr5	136900000	137300000	0.355	SPOCK1	FRA5C
37	chr6	1900000	2100000	0.320	GMDS	NA

38	chr6	5200000	5700000	0.695	LOC101927950	FRA6B
39	chr6	19500000	19600000	0.365	LOC100506885	NA
40	chr6	98600000	98700000	0.337	POU3F2	NA
41	chr6	100800000	101900000	0.624	ASCC3	NA
42	chr6	104000000	104600000	0.636	HACE1	FRA6F
43	chr6	147100000	147200000	0.316	LUADT1	NA
44	chr7	70000000	70600000	1.107	AUTS2	FRA7J
45	chr7	110700000	111300000	0.862	LRRN3	FRA7K
46	chr7	133500000	134000000	0.951	EXOC4	FRA7H
47	chr7	141500000	141700000	0.393	AGK	NA
48	chr8	99400000	99600000	0.364	MIR875	FRA8B
49	chr8	136800000	136900000	0.356	LINC02055	NA
50	chr9	2300000	2600000	0.361	VLDLR-AS1	NA
51	chr9	3300000	3500000	0.360	RFX3	NA
52	chr9	17600000	18100000	0.478	ADAMTSL1	FRA9C and FRA9G
53	chr9	28200000	29000000	1.289	MIR876	FRA9C
54	chr9	105900000	106300000	0.519	LINC01505	NA
55	chr10	53500000	53700000	0.534	PCDH15	FRA10C and FRA10G
56	chr11	22900000	23000000	0.364	CCDC179	FRA11C and FRA11I
57	chr11	28400000	28900000	0.468	MIR8068	FRA11D
58	chr11	31400000	31500000	0.384	DNAJC24	FRA11E
59	chr11	38800000	39000000	0.320	LINC01493	NA
60	chr11	79100000	79800000	0.583	MIR708	NA
61	chr11	80800000	81200000	0.505	LINC02720	NA
62	chr12	79200000	79400000	0.361	SYT1	FRA12B
63	chr12	99000000	100200000	1.438	MIR1827	NA
64	chr12	102600000	102700000	0.375	IGF1	NA
65	chr13	66500000	67000000	0.480	PCDH9-AS2	FRA13B
66	chr13	91700000	92700000	0.855	MIR548AS	NA
67	chr14	27200000	27400000	0.419	LINC00645	NA
68	chr14	37200000	37800000	0.660	MIPOL1	NA
69	chr14	46200000	46300000	0.394	LINC00871	NA
70	chr14	66400000	66900000	0.511	GPHN	FRA14B and FRA14C
71	chr16	72500000	72800000	0.457	LINC01572	FRA16B
72	chr16	78200000	79100000	1.991	WVOX	FRA16D
73	chr18	7900000	8000000	0.355	PTPRM	NA
74	chr18	39300000	39600000	1.216	MIR924HG	NA
75	chr20	8500000	8600000	0.352	PLCB1	FRA20B
76	chr20	13100000	13200000	0.359	SPTLC3	FRA20B

77	chrX	6800000	7600000	1.647	MIR4767	NA
78	chrX	8000000	8200000	0.473	VCX2	NA
79	chrX	10700000	11000000	0.456	MID1	NA
80	chrX	55900000	56000000	0.347	KLF8	FRAXF
81	chrX	63400000	63600000	0.409	LINC01278	FRAXF
82	chrX	99500000	99800000	0.785	PCDH19	FRAXF
83	chrX	108400000	108600000	0.487	COL4A5	FRAXF
84	chrX	121400000	121600000	0.365	MIR3672	FRAXF
85	chrX	142200000	142600000	0.707	MAGEC2	FRAXA, FRAXC and FRAXF