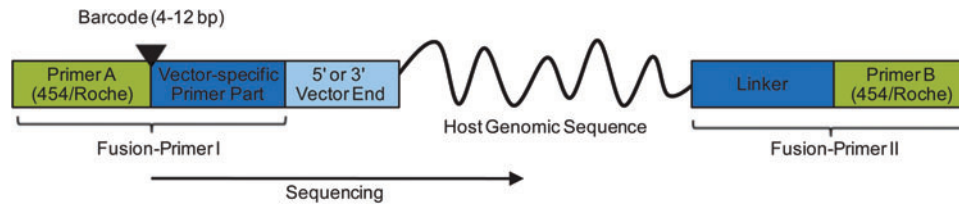


Supplementary Data



SUPPLEMENTARY FIG. S1. Linear amplification-mediated (LAM)-PCR amplicon structure. After fusion-primer PCR, the resulting LAM-PCR amplicons have the displayed structure and can be sequenced directly with the genome sequencer (454/Roche). The resulting raw sequence reads consist of a vector-specific fusion-primer sequence, the remaining terminal vector sequence, and the host genomic sequence. The linker sequence at the 3' end may not be reached because of high amplicon length. The same holds true for primer B. All sequences flanking the amplified host genomic sequence are removed before its alignment to the reference genome. Notably, in the case of Sanger sequencing and shotgun cloning, the resulting raw sequence reads consist also of plasmid sequences of different lengths at the 5' and 3' ends. In addition, the orientation of the vector host genome construct can be reversed. The high-throughput insertion site analysis pipeline (HISAP) first screens the vector-specific primer sequence in the forward orientation and, if no vector-specific primer sequence is identified, analyzes the reverse complement sequence.

a

Welcome Settings **Query Upload** Job Summary

Enter e-Mail Address ?

Confirm e-Mail Address ?

Enter Job Name ?

SEQ-Type 454 Life Sciences Sanger ?

LAM-Direction 3' LAM-PCR 5' LAM-PCR ?

Target Genome HomoSapiens (NCBI37, HG19) MusMusculus (NCBI37, mm9) RattusNorvegicus (Baylor 3.4, rn4) ?

Trimming - Template Other HIV, SFFV, MLV, None ?

Trimming - MegaPrimer ?

Trimming - Vector-LTR ?

Trimming - Linker ?

Upload Vector Sequence Durchsuchen... ?

Save Settings

b

Welcome Settings **Query Upload** Job Summary

Query File #1 C:\Project1\sample1.fna Browse... ?

Query File #2 C:\Project1\sample2.fna Browse... ?

Query File #3 C:\Project1\sample3.fna Browse... ?

Query File #4 Browse... ?

Query File #5 Browse... ?

Query File #6 Browse... ?

Query File #7 Browse... ?

Query File #8 Browse... ?

Query File #9 Browse... ?

Query File #10 Browse... ?

Upload Files

c

Welcome Settings **Query Upload** Job Summary

e-Mail Address hisap.user@nct-heidelberg.de

Job Name job no.1

SEQ-Type 454 Life Sciences

LAM-Direction 3' lamPCR

Target Genome HomoSapiens (NCBI37, HG19)

Trimming Template Lenti

Query File #1 FileName: sample1.fna, SeqCount: 392 X

Query File #2 FileName: sample2.fna, SeqCount: 224 X

Query File #3 FileName: sample3.fna, SeqCount: 448 X

By submitting jobs to HISAP you agree with our terms & conditions. For citing HISAP see Welcome.

Submit Job

Query files successfully uploaded.

SUPPLEMENTARY FIG. S2. HISAP screenshots. An HISAP submission consists of three steps: (a) User- and experiment-specific information enables the selection of relevant parameters for the HISAP analysis and for notification when the analysis is complete. The upload of the respective vector sequence is optional and not required for HISAP analysis. (b) The multiple FASTA sequence files of the project are uploaded to the server. A large number of sequence files can be combined into a zip archive and uploaded. (c) The information supplied in the previous steps is summarized and HISAP can be started.

SUPPLEMENTARY TABLE S1.

chr, chromosome; M, months after stem cell transplantation at which the samples were taken; Ori, orientation of vector integration.

Note: All insertion sites (IS) found in the analyzed samples are listed. To follow the IS over the time course, the total sequence numbers obtained for a certain IS from different cell fractions at a single time point are summarized. The column "N Times Found" indicates whether a given IS clone is detected at one or more time points.

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
GNB1	1819462	1	-	1	3	0	0	0	0	0
ACTRT2	2961405	1	-	1	0	0	0	0	0	2
CAMTA1	6917966	1	+	1	0	0	0	0	0	4
KIF1B	10295588	1	+	1	0	0	0	0	2	0
KIF1B	10352445	1	-	1	0	0	7	0	0	0
EXOSC10	11134848	1	-	1	0	2	0	0	0	0
TNFRSF1B	12219199	1	+	1	0	0	0	0	7	0
SPEN	16220647	1	+	1	0	0	9	0	0	0
SPEN	16222374	1	-	1	0	0	0	0	2	0
PADI1	17572453	1	+	2	170	0	0	9	0	0
UBR4	19510558	1	-	1	0	0	0	4	0	0
CAPZB	19759030	1	-	1	0	0	0	0	16	0
EIF4G3	21221570	1	-	1	0	0	7	0	0	0
EIF4G3	21247607	1	+	1	0	1	0	0	0	0
EIF4G3	21279828	1	-	1	0	0	0	0	0	1
EIF4G3	21325184	1	+	1	1	0	0	0	0	0
EIF4G3	21500487	1	+	1	16	0	0	0	0	0
USP48	22073856	1	-	2	0	166	0	17	0	0
CDC42	22392722	1	+	1	0	1	0	0	0	0
CDC42	22398241	1	-	1	0	1	0	0	0	0
CDC42	22414303	1	+	1	0	22	0	0	0	0
KDM1A	23372205	1	+	1	0	0	2	0	0	0
KDM1A	23381841	1	+	1	0	0	142	0	0	0
CLIC4	25116269	1	-	1	0	0	0	0	0	3
TMEM50A	25681080	1	+	1	0	0	0	0	7	0
PAFAH2	26276090	1	+	2	0	0	0	25	5	0
CEP85	26582365	1	-	3	0	0	0	29	3	3
UBXN11	26618458	1	+	1	7	0	0	0	0	0
ARID1A	27043874	1	+	1	0	0	14	0	0	0
ZDHHC18	27149387	1	+	2	0	0	0	5	0	1
WDTC1	27586951	1	-	1	0	2	0	0	0	0
WDTC1	27597990	1	+	3	0	0	0	9	4	12
WDTC1	27604583	1	-	1	0	0	0	0	1	0
EYA3	28360620	1	+	1	0	1	0	0	0	0
EYA3	28363457	1	-	1	0	0	0	1	0	0
EYA3	28397592	1	-	1	0	0	0	9	0	0
DNAJC8	28539162	1	+	1	1	0	0	0	0	0
PHACTR4	28752654	1	+	1	0	0	3	0	0	0
PHACTR4	28781506	1	+	1	0	0	18	0	0	0
EPB41	29248220	1	+	1	0	0	0	12	0	0
PUM1	31464218	1	+	2	25	0	9	0	0	0
PTP4A2	32382120	1	-	1	0	0	0	4	0	0
PTP4A2	32390853	1	+	1	0	0	0	18	0	0
HDAC1	32764554	1	-	1	0	0	1	0	0	0
ZBTB8A	33052637	1	-	1	0	0	0	0	0	14
PHC2	33877292	1	+	1	0	0	0	53	0	0
LOC100506144	35424009	1	-	1	0	0	0	6	0	0
ZMYM6	35482084	1	-	1	0	28	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
ZMYM4	35742641	1	+	1	0	0	1	0	0	0
ZMYM4	35862110	1	+	1	0	0	0	0	0	1
PSMB2	36090893	1	+	1	0	0	3	0	0	0
EIF2C3	36407454	1	+	1	3	0	0	0	0	0
EIF2C3	36445083	1	-	1	0	12	0	0	0	0
EIF2C3	36448154	1	-	1	0	0	0	27	0	0
MACF1	39813545	1	+	1	0	0	0	0	0	11
MACF1	39891134	1	-	1	7	0	0	0	0	0
SCMH1	41586260	1	+	1	1	0	0	0	0	0
HIVEP3	42377773	1	-	1	0	0	0	6	0	0
YBX1	43151405	1	-	1	0	0	0	58	0	0
ZNF691	43333662	1	+	1	13	0	0	0	0	0
TIE1	43789585	1	-	1	0	0	0	7	0	0
C1orf84	43874288	1	+	1	0	0	0	0	0	8
ST3GAL3	44209921	1	+	1	0	0	0	6	0	0
TESK2	45917962	1	-	1	0	0	2	0	0	0
MAST2	46343832	1	-	1	0	0	0	0	0	14
ZCCHC11	52988644	1	+	1	0	0	0	1	0	0
USP24	55667842	1	-	1	0	0	15	0	0	0
HOOK1	60312927	1	-	3	193	0	0	5	1	0
NFIA	61698546	1	+	1	0	0	3	0	0	0
DOCK7	62962194	1	+	1	0	1	0	0	0	0
ALG6	63878032	1	-	1	0	0	0	0	0	2
NEGR1	72651322	1	-	1	0	0	0	24	0	0
ASB17	76467803	1	+	1	0	1	0	0	0	0
ZZZ3	78047148	1	+	1	0	1	0	0	0	0
LPHN2	81349526	1	-	1	0	0	81	0	0	0
ODF2L	86776132	1	-	2	3	5	0	0	0	0
DPYD	98291787	1	+	2	0	0	0	2	2	0
CDC14A	100827721	1	-	1	0	2	0	0	0	0
RNPC3	104077444	1	-	2	0	0	72	0	1	0
AMY1C	104621207	1	-	1	0	1	0	0	0	0
GSTM5	110260977	1	-	2	0	0	0	0	12	11
RBM15	110894936	1	+	1	0	0	1	0	0	0
DENND2D	111750402	1	-	1	0	0	0	4	0	0
ADORA3	112097524	1	-	1	0	2	0	0	0	0
FCGR1B	121484829	1	-	1	0	0	0	5	0	0
PDE4DIP	144912662	1	+	1	0	3	0	0	0	0
PDE4DIP	144929202	1	+	2	173	3	0	0	0	0
NOTCH2NL	145263252	1	-	1	0	1	0	0	0	0
NOTCH2NL	145272448	1	-	1	0	0	0	8	0	0
CHD1L	146731607	1	-	1	0	0	1	0	0	0
VPS45	150098708	1	-	1	0	0	0	0	0	2
MCL1	150546593	1	+	1	0	0	0	1	0	0
GOLPH3L	150665714	1	-	1	0	0	0	0	0	14
HORMAD1	150687853	1	+	3	0	3	1	13	0	0
SETDB1	150916790	1	-	1	0	10	0	0	0	0
SEMA6C	151115881	1	+	1	0	0	0	4	0	0
POGZ	151389502	1	-	1	0	0	0	0	0	9

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
S100A10	151926748	1	+	1	0	0	0	4	0	0
GATAD2B	153842178	1	+	1	0	0	9	0	0	0
C1orf43	154189331	1	+	1	0	0	0	9	0	0
UBAP2L	154196702	1	+	1	0	0	0	2	0	0
UBAP2L	154237004	1	-	2	5	0	0	0	0	17
TDRD10	154498883	1	+	1	0	4	0	0	0	0
ADAR	154589988	1	+	1	0	0	61	0	0	0
PMVK	154876709	1	-	1	0	0	7	0	0	0
KRTCAP2	155128997	1	+	1	5	0	0	0	0	0
ASH1L	155371376	1	+	1	20	0	0	0	0	0
ASH1L	155413049	1	+	1	0	0	0	1	0	0
ASH1L	155428543	1	-	1	0	0	1	0	0	0
ASH1L	155433995	1	+	1	0	0	2	0	0	0
ASH1L	155434682	1	-	1	93	0	0	0	0	0
ASH1L	155435176	1	+	1	0	0	0	0	0	1
ASH1L	155480794	1	+	1	0	0	0	4	0	0
YY1AP1	155633623	1	-	1	0	0	1	0	0	0
GON4L	155770502	1	+	1	0	0	0	11	0	0
GON4L	155778050	1	+	1	0	0	0	0	0	10
ARHGEF11	156979185	1	+	1	0	1	0	0	0	0
FCRL2	157701404	1	-	2	0	0	92	0	1	0
DCAF8	160205183	1	-	1	0	0	0	0	2	0
COPA	160288565	1	-	1	1	0	0	0	0	0
DEDD	161097598	1	-	1	0	0	2	0	0	0
PBX1	164542712	1	+	1	0	0	0	1	0	0
PBX1	164797466	1	-	1	0	0	3	0	0	0
POU2F1	167245220	1	-	2	3	0	9	0	0	0
POU2F1	167255993	1	-	1	0	0	0	144	0	0
NME7	169283807	1	-	3	3	2	0	1	0	0
SCYL3	169839104	1	+	1	8	0	0	0	0	0
DNM3	171814436	1	-	1	0	0	0	8	0	0
TNFSF18	173041261	1	+	1	0	0	0	3	0	0
RABGAP1L	174918415	1	+	1	0	0	0	27	0	0
RFWD2	176118794	1	-	1	0	0	0	2	0	0
ABL2	179081169	1	+	1	4	0	0	0	0	0
SMG7	183479651	1	+	1	0	0	0	13	0	0
PLA2G4A	187870503	1	+	2	0	0	0	1	0	7
PLA2G4A	188294300	1	+	1	0	0	0	24	0	0
RGS18	191885208	1	+	1	24	0	0	0	0	0
KCNT2	196375455	1	-	1	0	0	0	0	13	0
CFH	196613424	1	+	2	0	1	0	1	0	0
ZNF281	200325227	1	-	2	0	0	0	14	56	0
DDX59	200650112	1	-	1	0	0	21	0	0	0
ADIPOR1	202910326	1	-	1	22	0	0	0	0	0
PPP1R15B	204370211	1	-	1	0	3	0	0	0	0
RBBP5	205085423	1	+	1	3	0	0	0	0	0
AVPR1B	206221234	1	+	1	0	0	0	1	0	0
C1orf186	206252441	1	+	1	0	1	0	0	0	0
CD55	207511836	1	-	1	180	0	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
CR1	207777011	1	+	1	0	0	4	0	0	0
CD46	207937828	1	-	1	0	0	0	1	0	0
CD46	207939283	1	+	1	0	0	0	0	0	2
CD46	207963852	1	+	1	0	0	0	7	0	0
HHAT	210531184	1	-	1	0	5	0	0	0	0
RCOR3	211408208	1	-	2	0	0	0	17	0	8
RCOR3	211450701	1	-	1	0	0	3	0	0	0
LYPLAL1	219382100	1	+	3	0	3	0	4	0	12
RAB3GAP2	220395190	1	+	1	0	3	0	0	0	0
CDC42BPA	227206112	1	-	1	0	0	189	0	0	0
CDC42BPA	227341699	1	+	1	0	3	0	0	0	0
CDC42BPA	227494250	1	-	1	0	0	0	6	0	0
SPHAR	229441944	1	+	1	0	0	0	8	0	0
NUP133	229625216	1	-	1	0	0	0	0	0	1
GNPAT	231398061	1	+	1	0	0	0	11	0	0
DISC1	231908084	1	+	1	0	0	0	7	0	0
TARBP1	234586165	1	+	1	0	0	0	0	0	7
ARID4B	235364517	1	-	1	0	0	2	0	0	0
ARID4B	235367917	1	+	1	0	0	0	27	0	0
CHRM3	239338494	1	+	1	0	0	0	107	0	0
KMO	241735253	1	-	1	0	0	0	0	11	0
ADSS	244586939	1	-	1	0	0	0	0	4	0
ZNF670	247211007	1	-	1	0	0	0	4	0	0
OR2T8	248081691	1	-	1	0	0	0	0	19	0
OR2L13	248164662	1	-	1	0	0	0	0	0	3
CMPK2	6940862	2	-	1	0	0	15	0	0	0
ID2	8034201	2	-	1	0	0	2	0	0	0
NOL10	10759582	2	-	1	0	0	0	3	0	0
ROCK2	11417967	2	+	2	0	0	0	0	2	4
TRIB2	13537287	2	-	1	0	2	0	0	0	0
FAM49A	16481757	2	-	1	0	0	0	15	0	0
ATAD2B	24021277	2	-	1	0	0	3	0	0	0
NCOA1	24895152	2	+	1	0	0	0	0	0	1
DTNB	25670405	2	+	1	0	0	0	0	32	0
ASXL2	25983321	2	-	1	0	1	0	0	0	0
RAB10	26342269	2	-	1	0	0	0	0	0	1
BRE	28199648	2	-	1	6	0	0	0	0	0
BRE	28232062	2	-	1	0	1	0	0	0	0
BRE	28254606	2	+	2	0	2	0	4	0	0
PLB1	28857685	2	+	1	0	0	1	0	0	0
CLIP4	29408263	2	+	1	0	0	0	65	0	0
MEMO1	32142785	2	-	1	66	0	0	0	0	0
SPAST	32360815	2	+	1	0	1	0	0	0	0
SLC30A6	32430894	2	-	1	0	0	0	0	5	0
RASGRP3	33730406	2	+	1	0	0	0	21	0	0
CRIM1	36611644	2	+	1	0	0	0	0	0	2
MAP4K3	39491491	2	-	1	0	0	11	0	0	0
MAP4K3	39554207	2	+	1	0	0	0	0	0	2
MAP4K3	39555690	2	-	1	0	0	0	12	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
SLC8A1	41241159	2	-	1	0	0	2	0	0	0
MTA3	42806305	2	-	1	0	0	4	0	0	0
HAAO	43118328	2	+	1	0	0	40	0	0	0
THADA	43725495	2	+	1	0	0	0	0	0	3
THADA	43755793	2	+	1	0	0	0	0	19	0
THADA	43816637	2	-	1	0	0	8	0	0	0
SRBD1	45700595	2	+	1	0	0	2	0	0	0
SOCS5	46955681	2	-	1	0	0	0	2	0	0
FBXO11	48125268	2	+	1	0	0	0	1	0	0
NRXN1	50118655	2	-	1	0	0	0	0	0	1
NRXN1	50704528	2	-	3	0	204	2	0	63	0
ASB3	52653567	2	-	1	339	0	0	0	0	0
FANCL	58849492	2	-	1	0	0	0	6	0	0
FANCL	58870062	2	-	1	0	29	0	0	0	0
FANCL	59116375	2	+	1	0	0	0	1	0	0
FANCL	59277933	2	-	1	0	0	0	10	0	0
EHBP1	62947576	2	-	1	0	0	0	0	3	0
EHBP1	63098480	2	+	1	0	0	0	0	0	1
EHBP1	63214921	2	+	1	0	0	0	13	0	0
WDPCP	63548541	2	+	1	0	0	0	0	0	1
WDPCP	63808402	2	-	2	0	0	16	0	0	5
MEIS1	66906898	2	-	1	0	0	0	0	0	1
MEIS1	66990269	2	+	1	0	0	0	6	0	0
APLF	68777630	2	+	1	0	0	8	0	0	0
GMCL1	70091359	2	-	1	0	1	0	0	0	0
DGUOK	74170107	2	-	1	0	0	9	0	0	0
CTNNA2	82573115	2	+	1	0	0	0	0	0	1
STARD7	96858630	2	+	1	0	0	0	0	2	0
IL1R1	102776040	2	-	1	0	0	3	0	0	0
POU3F3	104562185	2	-	1	0	1	0	0	0	0
MRPS9	105687799	2	+	1	0	0	0	13	0	0
MRPS9	105692970	2	+	1	0	1	0	0	0	0
SULT1C4	109003724	2	-	1	0	0	11	0	0	0
BCL2L11	112043361	2	-	1	0	0	0	0	0	2
TMEM87B	112858177	2	-	2	0	12	0	1	0	0
DDX18	118586899	2	+	1	0	0	0	5	0	0
INSIG2	118866548	2	+	1	0	0	0	0	128	0
CNTNAP5	123867178	2	+	1	0	0	0	0	1	0
CNTNAP5	124029896	2	-	1	0	0	0	6	0	0
CNTNAP5	124046372	2	+	1	0	2	0	0	0	0
GYPC	127225792	2	+	1	0	0	0	1	0	0
GYPC	127540451	2	-	1	0	0	0	0	0	2
UGGT1	128924213	2	-	1	78	0	0	0	0	0
GPR39	133001627	2	-	1	0	0	0	5	0	0
GRB14	165324035	2	-	1	0	0	14	0	0	0
XIRP2	168033866	2	+	1	0	0	0	0	4	0
TLK1	171906552	2	-	1	0	5	0	0	0	0
DCAF17	172331671	2	-	1	0	0	0	0	0	3
OLA1	175040981	2	+	1	0	1	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
ZNF804A	185586816	2	+	1	0	29	0	0	0	0
TMEFF2	194106533	2	-	1	0	2	0	0	0	0
DNAH7	196704960	2	+	1	0	0	0	3	0	0
TRAK2	202302088	2	-	1	0	0	2	0	0	0
PARD3B	206012675	2	+	1	0	0	0	0	0	1
BARD1	215667422	2	-	1	0	13	0	0	0	0
SMARCAL1	217305690	2	-	1	0	0	7	0	0	0
EPHA4	222387732	2	+	1	0	0	0	0	4	0
FARSB	223506359	2	-	1	0	2	0	0	0	0
SPHKAP	229308806	2	+	1	1	0	0	0	0	0
SP140L	231201272	2	-	2	0	2	0	4	0	0
SP100	231296174	2	-	3	0	7	0	7	0	4
PSMD1	232013574	2	+	1	0	2	0	0	0	0
PDE6D	232637652	2	+	1	0	0	0	25	0	0
DIS3L2	232858705	2	-	1	0	0	0	15	0	0
LRRFIP1	238666558	2	-	1	0	0	31	0	0	0
RAMP1	238842068	2	+	2	0	5	0	0	0	1
FARP2	242308085	2	+	1	0	0	0	0	8	0
SETD5	9491593	3	+	1	0	0	0	0	0	1
VGLL4	11749543	3	-	1	0	5	0	0	0	0
NUP210	13421205	3	+	1	0	0	13	0	0	0
FGD5	14973528	3	+	1	0	1	0	0	0	0
ANKRD28	15823074	3	-	2	0	0	0	3	0	2
ANKRD28	15871198	3	-	1	0	14	0	0	0	0
PLCL2	16986715	3	-	1	0	10	0	0	0	0
TBC1D5	17539196	3	+	1	0	1	0	0	0	0
KCNH8	19498164	3	+	1	0	3	0	0	0	0
ZNF385D	22275063	3	+	1	0	0	0	8	0	0
THRB	24479655	3	-	1	0	10	0	0	0	0
RBMS3	29957780	3	-	1	0	0	0	0	0	1
STT3B	31656399	3	+	1	5	0	0	0	0	0
STAC	36112825	3	-	1	0	0	0	0	2	0
NKTR	42658909	3	-	1	0	0	0	2	0	0
NKTR	42667944	3	-	2	0	0	0	11	1	0
SNRK	43354262	3	-	1	6	0	0	0	0	0
ANO10	43591386	3	-	1	0	0	0	1	0	0
C3orf23	44398785	3	+	1	0	0	1	0	0	0
CCDC12	46980209	3	+	1	0	0	0	34	0	0
SETD2	47111781	3	+	1	0	0	0	212	0	0
SETD2	47154445	3	-	1	0	0	7	0	0	0
SETD2	47157479	3	+	1	0	0	0	79	0	0
SMARCC1	47666501	3	-	1	0	0	1	0	0	0
SMARCC1	47681884	3	+	1	0	0	0	0	0	2
SMARCC1	47702342	3	-	1	0	0	0	0	23	0
SMARCC1	47727221	3	-	1	15	0	0	0	0	0
CDC25A	48219520	3	-	2	0	0	0	9	4	0
ARIH2	48994376	3	-	1	0	0	0	0	23	0
QRICH1	49101045	3	-	1	0	7	0	0	0	0
QRICH1	49118242	3	+	1	0	0	0	4	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
USP4	49354001	3	-	2	0	0	0	33	8	0
USP4	49365523	3	-	2	0	0	0	32	3	0
IP6K1	49789423	3	+	1	0	0	0	3	0	0
IP6K1	49812517	3	-	1	0	1	0	0	0	0
RBM6	49978416	3	+	1	0	0	0	9	0	0
RBM6	49982667	3	+	1	0	0	3	0	0	0
RBM6	50076095	3	-	1	0	0	0	10	0	0
RBM6	50079856	3	-	1	0	0	0	0	3	0
RBM5	50131910	3	-	1	0	0	0	0	0	1
DOCK3	50816355	3	-	1	0	0	0	0	2	0
DOCK3	50994746	3	+	1	6	0	0	0	0	0
DOCK3	51088948	3	-	1	0	1	0	0	0	0
VPRBP	51483503	3	+	1	0	2	0	0	0	0
IQCF6	51829232	3	+	1	0	1	0	0	0	0
POC1A	52133135	3	-	1	0	0	0	0	2	0
PBRM1	52641244	3	+	1	0	0	0	4	0	0
PBRM1	52660927	3	+	1	0	6	0	0	0	0
ARHGEF3	56936656	3	+	3	130	0	0	5	1	0
ASB14	57309775	3	+	1	0	0	0	0	0	10
FOXP1	71603288	3	-	1	0	0	2	0	0	0
CNTN3	74416560	3	+	1	6	0	0	0	0	0
GBE1	80749458	3	+	1	0	0	0	37	0	0
GBE1	81696908	3	+	1	0	0	0	15	0	0
GBE1	83296448	3	-	1	0	0	1	0	0	0
HTR1F	87871007	3	-	1	0	0	9	0	0	0
NSUN3	94120434	3	+	1	0	0	0	24	0	0
NSUN3	94184957	3	-	1	0	0	0	0	139	0
DCBLD2	98520065	3	+	1	0	0	0	0	0	2
C3orf26	99673131	3	+	1	0	0	3	0	0	0
ALCAM	104013156	3	-	1	7	0	0	0	0	0
CBLB	105441587	3	-	1	0	1	0	0	0	0
CBLB	105508314	3	-	2	0	1	0	0	8	0
CD47	107783644	3	-	1	2	0	0	0	0	0
PVRL3	110864626	3	+	1	0	9	0	0	0	0
PLCXD2	111416926	3	-	1	0	0	0	5	0	0
CCDC80	112339220	3	+	1	0	0	0	11	0	0
DIRC2	122523765	3	+	1	0	0	0	0	0	2
DIRC2	122563619	3	+	1	0	0	0	3	0	0
C3orf37	129015407	3	+	1	206	0	0	0	0	0
ATP2C1	130672362	3	+	1	0	0	1	0	0	0
TFDP2	141801671	3	+	1	0	3	0	0	0	0
PLOD2	145487913	3	-	1	0	0	0	0	0	4
PLOD2	145844050	3	-	1	0	0	0	0	0	5
PLOD2	145844059	3	-	1	0	0	0	0	1	0
TIPARP	156403438	3	+	1	0	0	3	0	0	0
OTOL1	162507348	3	-	1	0	16	0	0	0	0
SLITRK3	165094062	3	-	2	0	0	57	0	129	0
BCHE	165939104	3	-	1	0	0	0	0	54	0
GOLIM4	168277241	3	+	1	0	0	0	5	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
NLGN1	173338957	3	-	1	0	5	0	0	0	0
NLGN1	173479793	3	+	1	0	0	0	12	0	0
NAALADL2	174709902	3	-	1	0	0	1	0	0	0
NAALADL2	175052794	3	-	1	0	0	25	0	0	0
KCNMB2	178034344	3	+	1	48	0	0	0	0	0
PSMD2	184025924	3	-	1	0	0	0	6	0	0
VPS8	184693706	3	-	1	0	0	0	0	0	3
ETV5	185801303	3	-	1	0	0	0	3	0	0
LPP	187807870	3	-	1	0	0	1	0	0	0
TFRC	195842396	3	+	1	0	6	0	0	0	0
DLG1	196797461	3	+	1	0	2	0	0	0	0
DLG1	196809817	3	+	1	0	2	0	0	0	0
DLG1	196952719	3	+	1	0	4	0	0	0	0
FYTTD1	197503230	3	+	1	0	0	0	0	0	1
ZNF718	154910	4	-	1	0	0	9	0	0	0
PIGG	523443	4	+	1	3	0	0	0	0	0
HAUS3	2237782	4	-	1	0	0	0	0	12	0
FAM193A	2667741	4	+	1	0	0	1	0	0	0
HTT	3147397	4	-	1	0	0	3	0	0	0
RAB28	13470277	4	+	1	0	0	0	1	0	0
GBA3	22725620	4	-	1	0	0	0	0	3	0
KIAA1239	37131749	4	-	1	0	0	0	8	0	0
PDS5A	39917042	4	+	1	0	0	0	0	14	0
GRXCR1	43497623	4	-	1	0	4	0	0	0	0
GABRG1	45839732	4	-	1	0	0	0	0	0	15
FRYL	48646593	4	-	1	0	1	0	0	0	0
KDR	55782415	4	+	1	0	0	0	5	0	0
POLR2B	57860624	4	+	2	0	0	0	8	0	6
LPHN3	62678304	4	-	1	0	240	0	0	0	0
UBA6	68524040	4	+	1	0	0	0	90	0	0
UGT2A3	69815705	4	+	2	0	0	64	2	0	0
RASSF6	74488529	4	-	2	0	0	2	11	0	0
MTHFD2L	75066040	4	+	2	0	0	1	20	0	0
NAA11	80200303	4	+	1	0	0	0	0	5	0
GK2	80380879	4	+	1	0	0	0	4	0	0
AGPAT9	84498600	4	-	1	0	0	0	0	0	1
WDFY3	85744065	4	+	1	8	0	0	0	0	0
PTPN13	87708841	4	+	2	0	15	0	0	4	0
PDHA2	97280756	4	+	1	0	2	0	0	0	0
PDHA2	97567416	4	+	1	0	0	0	0	0	3
SLC39A8	103328825	4	+	1	2	0	0	0	0	0
TACR3	104497597	4	-	2	0	1	0	2	0	0
CXXC4	105706604	4	+	1	0	0	0	0	6	0
TBCK	106996302	4	+	1	0	0	0	9	0	0
C4orf32	113033221	4	-	1	0	60	0	0	0	0
CAMK2D	114654959	4	+	1	10	0	0	0	0	0
NDST4	116279532	4	+	1	0	0	0	0	0	1
NDST3	118710745	4	-	1	0	0	0	5	0	0
PDE5A	120394658	4	-	1	0	0	0	0	19	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
TRPC3	122805059	4	-	1	0	0	0	2	0	0
SPATA5	124065196	4	+	1	0	0	18	0	0	0
FAT4	126320774	4	+	1	0	0	0	12	0	0
HSPA4L	128728666	4	+	1	6	0	0	0	0	0
PCDH18	137366012	4	+	1	0	0	0	17	0	0
MAML3	141093494	4	-	1	0	1	0	0	0	0
USP38	144115645	4	+	1	0	0	0	12	0	0
SMARCA5	144471652	4	+	1	0	0	0	0	3	0
NR3C2	149101886	4	+	1	0	2	0	0	0	0
LRBA	151516349	4	-	1	0	0	2	0	0	0
FBXW7	153318796	4	+	1	0	0	0	0	2	0
TLL1	167286127	4	+	1	0	0	0	0	1	0
GALNTL6	171966862	4	-	1	0	0	0	2	0	0
GALNTL6	172019854	4	+	1	0	0	105	0	0	0
GALNTL6	172164610	4	-	1	0	0	62	0	0	0
GLRA3	175556116	4	+	1	0	0	0	0	14	0
GPM6A	176353939	4	-	1	0	0	0	2	0	0
GPM6A	176943894	4	+	1	0	0	0	10	0	0
WDR17	176996586	4	-	1	0	0	0	4	0	0
WDR17	177003762	4	+	1	1	0	0	0	0	0
ODZ3	183401192	4	-	1	0	0	0	0	0	6
DNAH5	13212191	5	-	1	0	0	0	11	0	0
DNAH5	13768387	5	+	1	0	0	28	0	0	0
CDH18	20061651	5	-	1	12	0	0	0	0	0
CDH10	24119092	5	-	2	0	0	8	0	48	0
CDH10	24532396	5	+	1	0	0	2	0	0	0
CDH9	28122890	5	+	1	17	0	0	0	0	0
C5orf42	37230759	5	+	1	0	0	0	2	0	0
WDR70	37658968	5	-	1	0	0	4	0	0	0
ARL15	53167519	5	-	1	0	4	0	0	0	0
KIF2A	61642606	5	-	1	0	0	0	1	0	0
FCHO2	72310573	5	-	1	0	0	15	0	0	0
FAM169A	74099226	5	-	1	0	0	0	1	0	0
AGGF1	76303567	5	-	2	0	2	0	12	0	0
AP3B1	77356704	5	+	1	0	0	0	0	0	1
AP3B1	77411442	5	+	1	0	0	4	0	0	0
JMY	78560608	5	+	1	0	0	0	12	0	0
CHD1	98228091	5	+	1	0	0	0	3	0	0
FAM174A	99873036	5	+	1	0	0	0	1	0	0
ST8SIA4	100214626	5	+	1	0	0	19	0	0	0
EFNA5	106126545	5	-	2	102	0	0	3	0	0
PJA2	108847479	5	+	1	0	0	0	0	0	2
WDR36	110450258	5	-	1	0	0	0	4	0	0
STARD4	110844931	5	+	1	0	0	0	3	0	0
C5orf13	111075360	5	-	1	4	0	0	0	0	0
DTWD2	117185244	5	-	1	0	0	0	0	0	1
CSNK1G3	122941272	5	+	1	0	6	0	0	0	0
SLC27A6	128354010	5	+	1	0	0	0	0	0	2
HINT1	130414252	5	-	1	0	24	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
HINT1	130494762	5	-	1	12	0	0	0	0	0
RAPGEF6	130848140	5	+	1	0	0	0	163	0	0
HNRNPA0	137144335	5	-	1	0	4	0	0	0	0
ETF1	137867897	5	+	1	0	0	0	1	0	0
CTNNA1	138181882	5	+	1	0	0	0	0	0	2
MATR3	138640948	5	+	1	0	0	0	5	0	0
MATR3	138646392	5	+	1	0	0	2	0	0	0
ANKHD1-EIF4EBP3	139837327	5	+	1	0	0	3	0	0	0
JAKMIP2	147157608	5	-	1	2	0	0	0	0	0
HMMR	162909856	5	+	1	0	1	0	0	0	0
C5orf25	175754700	5	+	1	0	0	0	41	0	0
FAF2	175883732	5	-	1	0	0	0	9	0	0
NSD1	176640369	5	-	4	17	0	0	29	12	13
NSD1	176662410	5	+	1	0	0	9	0	0	0
NSD1	176696847	5	-	1	0	0	21	0	0	0
F12	176841284	5	+	1	0	2	0	0	0	0
CANX	179135567	5	+	1	1	0	0	0	0	0
MAML1	179181143	5	+	1	0	0	5	0	0	0
RNF130	179493271	5	-	1	0	0	0	1	0	0
FARS2	5338764	6	-	4	22	0	0	3	35	12
RANBP9	13651173	6	+	1	0	1	0	0	0	0
RANBP9	13662325	6	-	1	0	1	0	0	0	0
JARID2	15278743	6	-	2	0	1	0	0	0	1
RNF144B	18426584	6	+	1	0	8	0	0	0	0
LRRC16A	25403110	6	+	2	0	0	8	0	0	2
HIST1H2BC	26117118	6	-	2	0	0	0	20	111	0
HIST1H1E	26147100	6	+	1	0	0	0	0	0	2
HIST1H4D	26187442	6	-	1	0	0	0	0	0	1
BTN3A3	26444941	6	-	2	0	0	0	29	0	15
ZSCAN23	28393196	6	+	1	0	0	0	0	0	18
ZNRD1	29990285	6	+	1	0	1	0	0	0	0
ZNRD1	30019834	6	+	2	0	0	0	14	13	0
TRIM39	30288420	6	-	1	0	8	0	0	0	0
TRIM39	30300481	6	+	2	0	0	0	11	0	3
HLA-E	30455439	6	-	1	0	0	0	0	0	4
GNL1	30488521	6	-	2	0	0	0	6	0	4
ATAT1	30601077	6	+	1	13	0	0	0	0	0
POU5F1	31155808	6	-	1	0	1	0	0	0	0
HLA-B	31311666	6	-	1	0	0	2	0	0	0
HLA-B	31331645	6	-	1	0	0	0	0	1	0
MICA	31375342	6	+	3	1	133	0	0	1	0
HCP5	31440024	6	+	2	0	6	6	0	0	0
PRRC2A	31590426	6	+	1	0	15	0	0	0	0
PRRC2A	31606009	6	+	1	0	1	0	0	0	0
BAG6	31616295	6	-	1	2	0	0	0	0	0
GPANK1	31631386	6	+	1	0	0	222	0	0	0
MSH5	31713531	6	-	1	0	0	10	0	0	0
LSM2	31770593	6	-	1	0	0	1	0	0	0
C6orf48	31808743	6	-	1	0	0	11	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
EHMT2	31859059	6	-	1	0	0	0	8	0	0
C6orf10	32235110	6	-	1	0	0	0	7	0	0
C6orf10	32256477	6	-	1	0	0	0	4	0	0
C6orf10	32271371	6	-	2	0	19	5	0	0	0
C6orf10	32282846	6	+	1	0	0	0	0	0	11
C6orf10	32321360	6	+	1	0	0	0	5	0	0
C6orf10	32329494	6	-	1	0	0	1	0	0	0
HLA-DRB5	32519990	6	+	1	0	0	0	0	0	1
HLA-DRB1	32526725	6	+	1	0	0	0	0	2	0
HLA-DRB1	32541923	6	-	1	0	1	0	0	0	0
HLA-DRB1	32569770	6	-	1	0	0	1	0	0	0
HLA-DQA1	32596069	6	+	1	0	0	0	0	0	1
HLA-DQA1	32607105	6	+	1	0	0	0	1	0	0
HLA-DQA1	32609042	6	+	1	0	0	0	0	2	0
HLA-DQA1	32609046	6	+	1	0	0	0	1	0	0
HLA-DQA2	32717846	6	+	1	12	0	0	0	0	0
PSMB9	32846512	6	+	1	0	0	1	0	0	0
HLA-DMB	32872707	6	-	1	0	0	1	0	0	0
HLA-DMB	32876377	6	+	1	0	0	3	0	0	0
HLA-DMB	32876784	6	+	3	0	2	12	0	0	6
HLA-DMB	32885755	6	-	1	0	0	0	1	0	0
HLA-DMB	32887873	6	-	1	1	0	0	0	0	0
HLA-DMB	32891641	6	-	1	0	0	0	6	0	0
HLA-DMB	32904835	6	-	2	0	0	1	0	3	0
BRD2	32950668	6	-	1	0	1	0	0	0	0
HLA-DOA	33004474	6	-	1	0	0	0	0	0	6
HLA-DPA1	33009225	6	+	1	0	0	0	7	0	0
COL11A2	33096573	6	+	1	0	0	0	0	0	1
COL11A2	33155463	6	-	1	0	0	0	0	3	0
VPS52	33220878	6	-	1	0	0	3	0	0	0
KIFC1	33374648	6	-	1	0	0	13	0	0	0
UHRF1BP1	34778001	6	+	1	0	0	5	0	0	0
UHRF1BP1	34794172	6	+	1	0	0	0	2	0	0
UHRF1BP1	34809542	6	+	1	0	0	0	0	1	0
ANKS1A	34945038	6	+	1	0	0	13	0	0	0
ANKS1A	34965862	6	+	1	0	0	0	0	0	3
FKBP5	35567240	6	+	1	6	0	0	0	0	0
SRPK1	35828102	6	+	1	0	0	120	0	0	0
KCTD20	36432548	6	+	1	0	0	1	0	0	0
STK38	36507372	6	-	1	0	0	12	0	0	0
ZFAND3	37867462	6	-	1	0	0	0	3	0	0
ZFAND3	37887337	6	+	3	1	4	54	0	0	0
BTBD9	38382468	6	+	1	0	1	0	0	0	0
BTBD9	38543976	6	+	1	0	3	0	0	0	0
USP49	41819014	6	+	1	0	0	0	4	0	0
UBR2	42555167	6	+	1	4	0	0	0	0	0
UBR2	42577134	6	-	1	0	0	1	0	0	0
UBR2	42651898	6	+	1	0	0	16	0	0	0
PPP2R5D	42955293	6	-	1	0	2	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
ZNF318	43315475	6	-	1	0	0	17	0	0	0
XPO5	43526397	6	+	1	0	0	0	0	1	0
XPO5	43539237	6	-	1	0	0	0	7	0	0
SUPT3H	45298625	6	-	2	0	1	0	1	0	0
CD2AP	47495342	6	+	1	0	0	0	2	0	0
DST	56487972	6	+	1	0	0	0	0	6	0
EYS	65204474	6	-	1	1	0	0	0	0	0
LMBRD1	70453229	6	+	1	0	1	0	0	0	0
OGFRL1	72158346	6	+	1	0	0	0	0	2	0
LCA5	80196676	6	+	1	0	0	0	2	0	0
LCA5	80283538	6	-	1	0	0	0	0	0	2
RNGTT	89641377	6	-	1	0	1	0	0	0	0
EPHA7	92745357	6	-	1	0	0	0	0	0	1
KIAA0776	96965860	6	-	2	0	2	0	0	0	5
FBXL4	99330574	6	+	1	0	0	0	0	2	0
PDSS2	107756581	6	+	1	0	0	198	0	0	0
C6orf170	121543127	6	-	2	0	4	0	1	0	0
RSPO3	127498748	6	-	1	0	0	0	11	0	0
AKAP7	131474931	6	-	1	0	0	0	2	0	0
AHI1	135669357	6	-	1	42	0	0	0	0	0
CITED2	140768238	6	+	1	0	0	0	6	0	0
RAB32	146876036	6	-	1	0	0	0	0	0	1
SYNE1	152587816	6	+	1	0	1	0	0	0	0
TFB1M	155625792	6	+	1	0	0	0	0	1	0
ZFAND2A	1220742	7	+	1	0	0	0	0	0	5
WIPI2	5238374	7	+	1	0	16	0	0	0	0
RPA3	7735113	7	-	1	0	0	0	0	0	1
RPA3	7777357	7	+	1	0	2	0	0	0	0
GLCCI1	8064752	7	+	1	0	0	0	2	0	0
NXPH1	8703383	7	+	1	0	0	3	0	0	0
NDUFA4	9959286	7	+	1	0	0	0	0	8	0
NDUFA4	10733301	7	-	1	0	1	0	0	0	0
PHF14	11031676	7	+	1	0	0	0	0	0	3
PHF14	11156739	7	-	1	0	0	0	0	1	0
THSD7A	11806590	7	+	1	0	0	0	0	8	0
ARL4A	13200477	7	+	1	0	0	13	0	0	0
ITGB8	20522309	7	-	1	0	0	0	4	0	0
MPP6	24701650	7	+	1	0	1	0	0	0	0
HNRNPA2B1	26234772	7	+	1	0	0	0	6	0	0
ZNRF2	30384537	7	-	1	2	0	0	0	0	0
ZNRF2	30409741	7	+	2	6	0	0	4	0	0
KBTBD2	32918809	7	-	1	0	0	8	0	0	0
EEPD1	36198386	7	-	1	0	0	17	0	0	0
GPR141	37730877	7	-	1	0	0	0	1	0	0
VPS41	38837342	7	+	1	0	0	0	2	0	0
INHBA	41709613	7	+	1	0	0	0	16	0	0
STK17A	43645003	7	+	2	0	1	0	11	0	0
STK17A	43645085	7	-	1	0	0	0	1	0	0
NUDCD3	44451243	7	+	1	0	0	0	6	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
NUDCD3	44520356	7	-	2	71	0	0	1	0	0
TNS3	46755858	7	+	1	0	1	0	0	0	0
ABCA13	48488684	7	+	1	0	0	0	15	0	0
POM121L12	52574247	7	-	1	0	0	53	0	0	0
POM121L12	52694835	7	+	1	0	0	0	0	0	1
POM121L12	52799868	7	-	1	0	2	0	0	0	0
ZNF727	61738021	7	+	1	0	0	0	3	0	0
ZNF138	64258694	7	-	1	0	0	0	0	9	0
AUTS2	69139727	7	+	1	0	0	0	3	0	0
AUTS2	69604371	7	+	1	0	0	0	5	0	0
GTF2I	74129682	7	+	1	0	5	0	0	0	0
GTF2I	74136390	7	+	1	33	0	0	0	0	0
PHTF2	77551940	7	+	1	0	0	0	6	0	0
GNAT3	80152654	7	+	1	7	0	0	0	0	0
CACNA2D1	81668851	7	-	1	0	0	9	0	0	0
SEMA3D	84827153	7	+	1	0	0	1	0	0	0
SEMA3D	84869354	7	-	1	0	0	0	0	10	0
KIAA1324L	86526275	7	-	1	0	0	0	6	0	0
CDK6	92371989	7	+	1	0	0	2	0	0	0
SMURF1	98700292	7	-	1	0	3	0	0	0	0
GPC2	99772439	7	-	1	0	0	0	0	0	1
GATS	99881446	7	+	1	0	336	0	0	0	0
ZNHIT1	100863221	7	-	1	0	0	1	0	0	0
CUX1	101659927	7	-	1	0	0	3	0	0	0
SRPK2	104834983	7	-	1	0	19	0	0	0	0
COG5	106918345	7	+	1	0	2	0	0	0	0
IMMP2L	110835520	7	-	1	0	0	2	0	0	0
DOCK4	111621173	7	+	1	0	0	0	1	0	0
TMEM168	112416147	7	-	1	0	0	3	0	0	0
C7orf60	112463352	7	-	1	50	0	0	0	0	0
C7orf58	120673083	7	-	1	0	1	0	0	0	0
IQUB	123071227	7	-	1	0	0	0	9	0	0
WASL	123335824	7	+	1	0	0	0	0	0	1
WDR91	134889386	7	+	1	0	0	42	0	0	0
TRIM24	138067928	7	-	1	0	0	0	0	53	0
TRIM24	138258824	7	-	1	0	0	0	15	0	0
LUC7L2	139088197	7	+	1	0	0	0	8	0	0
MTRNR2L6	142356396	7	-	2	0	2	0	60	0	0
EZH2	148514464	7	-	2	0	2	0	4	0	0
GIMAP1-GIMAP5	150421512	7	+	1	0	0	4	0	0	0
MLL3	151972126	7	-	1	0	1	0	0	0	0
MLL3	152116003	7	+	2	0	0	18	0	1	0
WDR60	158686122	7	+	2	0	0	1	1	0	0
SGCZ	14050128	8	+	2	0	0	4	0	0	11
SGCZ	14519575	8	+	1	0	0	0	4	0	0
SGCZ	14524684	8	+	1	3	0	0	0	0	0
MSR1	16407796	8	+	1	0	0	0	18	0	0
PCM1	17841843	8	-	1	0	0	6	0	0	0
XPO7	21872390	8	+	1	0	0	5	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
ADAM7	24331655	8	-	1	0	0	0	0	60	0
FZD3	28369530	8	+	1	0	0	0	11	0	0
NRG1	32791577	8	+	1	0	0	0	0	0	2
ADAM9	38888589	8	-	1	0	3	0	0	0	0
ADAM32	39200683	8	-	1	0	1	0	0	0	0
IDO2	39796398	8	+	1	0	3	0	0	0	0
PLAG1	57119049	8	-	1	0	0	0	0	0	1
TOX	60338870	8	+	1	0	2	0	0	0	0
CYP7B1	65562731	8	-	1	0	0	0	0	2	0
PDE7A	66637612	8	+	1	0	0	2	0	0	0
NCOA2	71293931	8	-	1	0	0	0	10	0	0
TRAM1	71505391	8	+	1	0	0	0	5	0	0
FAM164A	79631441	8	+	1	0	0	0	0	0	1
RALYL	84067942	8	+	1	0	0	0	7	0	0
RALYL	84096885	8	+	1	0	0	0	0	0	3
WWP1	87404692	8	-	1	0	0	0	44	0	0
C8orf83	93905242	8	-	1	0	0	0	0	0	10
C8orf83	93925441	8	-	1	0	0	0	11	0	0
VPS13B	100604379	8	+	1	0	0	0	4	0	0
ANKRD46	101540473	8	+	1	0	0	0	0	0	2
RIMS2	104637493	8	-	1	0	0	4	0	0	0
ZFPM2	106371915	8	-	1	0	2	0	0	0	0
OXR1	107697108	8	+	1	0	0	0	5	0	0
TRHR	110101292	8	+	1	0	1	0	0	0	0
KCNV1	111767529	8	-	1	0	0	0	20	0	0
CSMD3	113667885	8	+	1	0	0	0	0	1	0
CSMD3	114551195	8	+	1	0	0	42	0	0	0
CSMD3	114756014	8	-	1	0	0	0	3	0	0
CSMD3	114882012	8	-	1	0	0	0	1	0	0
MED30	118540130	8	-	2	51	0	0	3	0	0
MRPL13	121434318	8	+	1	45	0	0	0	0	0
FER1L6	125135487	8	-	1	0	0	0	14	0	0
TMEM65	125359077	8	+	1	0	0	0	0	0	2
GSDMC	130614875	8	-	2	0	0	0	2	1	0
PTK2	141944223	8	+	2	85	0	0	1	0	0
LY6H	144200039	8	-	2	0	0	6	6	0	0
ZNF623	144737149	8	-	1	0	0	0	1	0	0
EXOSC4	145135832	8	-	1	0	0	0	0	2	0
PPP1R16A	145720203	8	-	1	0	0	0	1	0	0
ZNF251	145972626	8	-	1	0	0	0	143	0	0
ZNF16	146147830	8	-	1	2	0	0	0	0	0
C8orf33	146236721	8	+	1	0	0	0	0	0	3
RFX3	3129217	9	-	1	0	0	6	0	0	0
KIAA2026	5931459	9	-	1	0	0	0	2	0	0
C9orf93	15834089	9	+	1	0	0	0	0	0	10
C9orf93	15844795	9	-	1	0	0	4	0	0	0
CNTLN	17277937	9	-	1	0	0	1	0	0	0
MLLT3	20480115	9	+	1	0	0	0	0	0	6
KIAA1797	20821625	9	-	2	0	0	0	13	7	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
IFT74	27055375	9	+	1	0	0	0	8	0	0
ACO1	31435139	9	-	1	0	0	0	0	8	0
UBAP2	33991592	9	-	1	0	0	43	0	0	0
HRCT1	35889324	9	-	1	0	0	0	0	3	0
GNE	36244454	9	-	1	0	7	0	0	0	0
PTAR1	72362489	9	+	1	0	0	0	2	0	0
TMEM2	74317740	9	-	1	0	3	0	0	0	0
RASEF	85552423	9	-	3	0	9	23	7	0	0
UBQLN1	86282173	9	-	1	0	2	0	0	0	0
SECISBP2	91939842	9	-	1	0	1	0	0	0	0
GADD45G	92796496	9	+	1	0	0	12	0	0	0
AUH	94022195	9	-	1	0	0	0	48	0	0
SPTLC1	94814140	9	+	1	0	3	0	0	0	0
IARS	95045948	9	+	1	0	43	0	0	0	0
FANCC	97967944	9	+	1	0	0	41	0	0	0
SLC35D2	99131612	9	+	1	0	0	3	0	0	0
ZNF367	99148325	9	-	2	0	0	0	0	458	4
HEMGN	100693984	9	-	1	0	1	0	0	0	0
STX17	102674914	9	+	1	0	0	40	0	0	0
MURC	103403364	9	+	1	0	0	0	0	0	9
ZNF462	109582327	9	+	2	0	2	0	0	0	6
RAD23B	110063021	9	+	1	0	0	1	0	0	0
ROD1	115068781	9	+	2	0	0	0	1	0	1
RAB14	123953196	9	-	1	0	0	60	0	0	0
STOM	124127334	9	-	1	19	0	0	0	0	0
DENND1A	126531813	9	-	1	7	0	0	0	0	0
DENND1A	126620629	9	-	1	0	0	0	22	0	0
DENND1A	126627201	9	-	1	0	0	10	0	0	0
NR6A1	127398152	9	+	1	0	12	0	0	0	0
SCAI	127786686	9	-	1	0	0	0	0	8	0
ZNF79	130193444	9	-	1	0	0	0	0	0	5
RPL12	130210033	9	+	3	0	0	1	165	5	0
STXBP1	130435284	9	+	1	0	1	0	0	0	0
SH2D3C	130521721	9	+	1	0	0	64	0	0	0
SLC25A25	130838144	9	+	1	0	1	0	0	0	0
SPTAN1	131326675	9	+	1	0	0	0	0	0	1
SPTAN1	131339894	9	+	1	0	0	0	3	0	0
SET	131439972	9	+	1	0	0	0	0	25	0
SET	131455105	9	+	1	0	0	5	0	0	0
ZER1	131529808	9	-	1	0	0	0	1	0	0
LRRRC8A	131680073	9	-	1	0	0	0	1	0	0
NUP188	131750821	9	-	1	0	1	0	0	0	0
FNBP1	132667938	9	-	1	0	0	0	3	0	0
FNBP1	132692278	9	-	1	261	0	0	0	0	0
FNBP1	132741000	9	-	1	0	0	0	2	0	0
FNBP1	132764566	9	-	1	0	4	0	0	0	0
FNBP1	132776268	9	-	2	0	0	28	0	1	0
MED27	134861160	9	-	1	0	0	6	0	0	0
MED27	134904135	9	+	1	0	1	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
SETX	135154026	9	+	1	0	0	0	0	2	0
SETX	135190979	9	+	1	0	0	3	0	0	0
SETX	135217480	9	-	1	0	0	0	0	4	0
ABO	136140966	9	-	1	0	0	0	11	0	0
BRD3	136896632	9	-	1	0	0	0	4	0	0
RXRA	137403305	9	-	1	0	0	0	1	0	0
CAMSAP1	138784845	9	-	2	0	0	60	0	2	0
NACC2	138924403	9	+	1	0	0	0	0	0	11
QSOX2	139127226	9	-	2	0	1	0	19	0	0
GPSM1	139217015	9	+	1	0	0	0	3	0	0
SEC16A	139342586	9	+	1	0	0	0	43	0	0
SEC16A	139355110	9	+	1	0	25	0	0	0	0
SEC16A	139366392	9	-	1	0	0	0	0	0	1
NOTCH1	139461283	9	+	1	0	0	3	0	0	0
TRAF2	139787531	9	-	1	0	0	0	0	0	4
TRAF2	139824157	9	-	1	0	0	15	0	0	0
COBRA1	140159747	9	+	2	0	0	0	0	15	3
COBRA1	140165676	9	-	1	0	0	0	0	0	11
EXD3	140299077	9	-	1	1	0	0	0	0	0
AKR1C1	4959975	10	-	1	0	0	0	2	0	0
SFMBT2	7339653	10	+	1	0	0	3	0	0	0
GATA3	9113723	10	-	1	0	0	0	22	0	0
CELF2	9788900	10	-	3	0	1	3	9	0	0
PLXDC2	20042776	10	+	1	0	2	0	0	0	0
DNAJC1	22213532	10	-	1	0	0	0	0	1	0
DNAJC1	22267581	10	-	1	0	2	0	0	0	0
ARHGAP21	24902667	10	-	1	0	17	0	0	0	0
MARCH8	45972859	10	+	1	0	0	0	8	0	0
MARCH8	45988416	10	+	1	0	0	0	0	20	0
WDFY4	49915973	10	+	1	0	0	5	0	0	0
PRKG1	52984652	10	-	1	0	0	0	17	0	0
MBL2	54316450	10	+	1	0	0	0	5	0	0
MBL2	54387485	10	+	1	0	2	0	0	0	0
ZNF365	64183242	10	-	1	0	0	0	4	0	0
JMJD1C	65219372	10	+	1	0	0	0	0	18	0
PSAP	73659273	10	-	1	0	1	0	0	0	0
CBARA1	74311516	10	+	1	0	2	0	0	0	0
P4HA1	74794865	10	-	3	0	2	37	0	0	6
FAM190B	86098182	10	+	3	0	0	19	71	19	0
EXOC6	94526880	10	-	1	0	0	0	0	3	0
EXOC6	94658783	10	+	2	114	0	0	38	0	0
LCOR	98711829	10	+	1	0	0	0	0	0	4
LCOR	98716741	10	-	1	0	0	0	0	0	1
MMS19	99254938	10	-	1	0	4	0	0	0	0
ERLIN1	101926243	10	-	2	3	7	0	0	0	0
C10orf76	103623027	10	+	1	0	0	249	0	0	0
C10orf95	104214152	10	-	1	0	0	4	0	0	0
SORCS1	109444873	10	-	1	0	0	1	0	0	0
SORCS1	110129086	10	-	2	0	0	2	0	3	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
XPNPEP1	111295769	10	-	2	0	0	1	1	0	0
METTL10	126472363	10	+	2	22	1	0	0	0	0
ZRANB1	126651153	10	+	1	0	0	0	3	0	0
ADAM12	127833188	10	+	1	0	0	0	0	0	1
MGMT	131054379	10	+	1	0	0	0	0	0	4
INPP5A	134557514	10	-	1	0	6	0	0	0	0
NLRP6	275733	11	-	1	0	0	0	0	5	0
CDHR5	623689	11	-	1	0	0	0	1	0	0
DEAF1	666720	11	-	1	0	0	0	1	0	0
DEAF1	683679	11	+	1	0	0	0	0	0	9
AP2A2	946297	11	-	1	0	0	0	0	0	9
TNNT3	1931228	11	-	1	0	0	0	0	0	1
ZNF195	3387971	11	-	1	0	24	0	0	0	0
STIM1	3978381	11	+	1	37	0	0	0	0	0
STIM1	4068060	11	+	1	0	5	0	0	0	0
TRIM34	5665934	11	-	1	0	0	0	21	0	0
TRIM22	5717117	11	+	2	0	11	0	7	0	0
DNHD1	6545356	11	-	1	0	1	0	0	0	0
ZNF143	9497933	11	+	1	0	0	5	0	0	0
SBF2	9967486	11	+	1	0	1	0	0	0	0
SBF2	10022194	11	+	1	0	0	2	0	0	0
SBF2	10074446	11	-	1	0	1	0	0	0	0
SBF2	10146275	11	-	1	0	0	31	0	0	0
SBF2	10264046	11	+	1	0	0	0	2	0	0
RRAS2	14307105	11	-	1	0	1	0	0	0	0
SLC17A6	22441546	11	+	1	0	0	1	0	0	0
LOC100500938	22871040	11	+	1	14	0	0	0	0	0
LOC100500938	23191492	11	+	1	0	0	11	0	0	0
LUZP2	24864574	11	-	1	0	3	0	0	0	0
DCDC1	31172062	11	+	1	0	0	52	0	0	0
CAT	34480317	11	-	2	226	0	0	4	0	0
LRRC4C	39380201	11	-	1	0	0	0	0	0	4
CKAP5	46772335	11	+	2	130	0	0	1	0	0
CKAP5	46791355	11	-	1	0	0	1	0	0	0
C11orf49	47142306	11	-	2	0	0	0	7	16	0
PTPRJ	47947231	11	-	1	0	3	0	0	0	0
MS4A6A	59993663	11	+	1	0	0	0	0	9	0
INCENP	61846889	11	-	1	5	0	0	0	0	0
BSCL2	62469753	11	+	1	0	0	25	0	0	0
TTC9C	62498835	11	+	1	0	0	0	0	0	1
NXF1	62563744	11	+	1	2	0	0	0	0	0
SLC3A2	62621349	11	-	1	0	2	0	0	0	0
ATL3	63426990	11	+	1	0	0	0	10	0	0
RTN3	63489283	11	+	1	0	0	4	0	0	0
RTN3	63498480	11	+	1	0	0	10	0	0	0
MARK2	63618586	11	-	3	45	0	12	1	0	0
STIP1	63960511	11	+	1	0	0	0	42	0	0
STIP1	63964201	11	-	1	0	10	0	0	0	0
PLCB3	64028340	11	-	1	0	0	0	0	8	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
CCDC88B	64114303	11	-	1	0	0	0	4	0	0
SLC22A11	64262561	11	+	1	0	0	6	0	0	0
SLC22A11	64274730	11	-	1	0	0	0	18	0	0
SLC22A11	64287161	11	+	1	0	0	187	0	0	0
SLC22A11	64311827	11	+	1	0	0	2	0	0	0
SLC22A11	64341440	11	+	1	0	0	163	0	0	0
SF1	64541592	11	-	2	0	0	0	1	0	8
SF1	64543328	11	-	1	0	0	7	0	0	0
MAP4K2	64553305	11	-	1	38	0	0	0	0	0
MAP4K2	64563195	11	+	1	0	0	0	10	0	0
C11orf85	64718343	11	-	1	0	0	2	0	0	0
C11orf2	64870577	11	+	1	0	0	0	2	0	0
CAPN1	64961223	11	-	1	2	0	0	0	0	0
CAPN1	64963794	11	-	1	0	0	1	0	0	0
SLC22A20	64995325	11	-	1	8	0	0	0	0	0
POLA2	65043718	11	+	1	0	0	2	0	0	0
POLA2	65051283	11	-	1	0	3	0	0	0	0
FRMD8	65200189	11	+	2	0	0	0	1	0	2
FRMD8	65202350	11	-	1	34	0	0	0	0	0
FRMD8	65203618	11	-	1	0	0	0	1	0	0
FRMD8	65204231	11	-	1	0	0	0	0	0	4
FRMD8	65232040	11	+	1	0	0	0	0	0	16
RELA	65438369	11	+	1	0	0	0	11	0	0
KAT5	65456774	11	+	1	0	0	0	6	0	0
KAT5	65466872	11	-	1	0	0	0	5	0	0
PACS1	65866043	11	-	2	0	0	0	26	1	0
PACS1	65869752	11	-	1	0	0	14	0	0	0
PACS1	65915975	11	-	1	0	0	0	0	0	1
PACS1	65918042	11	+	1	0	0	0	0	107	0
PACS1	65921247	11	-	1	0	1	0	0	0	0
PACS1	65933925	11	+	1	0	0	0	7	0	0
PACS1	65940108	11	-	1	0	0	0	10	0	0
PACS1	65946899	11	-	1	0	0	0	2	0	0
PACS1	65969020	11	-	1	0	110	0	0	0	0
PACS1	65975615	11	+	1	0	0	10	0	0	0
SLC29A2	66134404	11	+	1	0	0	0	0	0	19
RBM4	66417219	11	+	3	0	1	0	5	5	0
C11orf80	66540735	11	-	1	0	0	0	0	0	4
KDM2A	66890440	11	-	1	0	0	31	0	0	0
KDM2A	66918466	11	-	1	0	0	54	0	0	0
KDM2A	66918488	11	+	1	0	1	0	0	0	0
KDM2A	66921906	11	+	1	0	0	0	0	3	0
KDM2A	66948432	11	+	1	0	1	0	0	0	0
KDM2A	66949312	11	-	1	0	1	0	0	0	0
KDM2A	66960275	11	-	1	0	304	0	0	0	0
KDM2A	66972362	11	+	1	0	0	0	2	0	0
KDM2A	66981207	11	+	1	40	0	0	0	0	0
KDM2A	66982470	11	+	1	9	0	0	0	0	0
KDM2A	66983541	11	-	1	0	0	0	0	0	1

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
KDM2A	66985020	11	-	1	0	1	0	0	0	0
KDM2A	66998733	11	+	1	0	0	0	11	0	0
KDM2A	67012669	11	-	3	0	0	1	447	2	0
ANKRD13D	67060010	11	+	2	1	0	0	1	0	0
ANKRD13D	67061114	11	-	1	0	0	4	0	0	0
CARNS1	67191664	11	-	1	0	22	0	0	0	0
CORO1B	67212236	11	+	1	0	0	0	3	0	0
CHKA	67831181	11	+	1	0	0	2	0	0	0
CHKA	67859613	11	-	1	2	0	0	0	0	0
CHKA	67883638	11	-	1	0	0	20	0	0	0
SUV420H1	67945929	11	-	1	0	0	0	2	0	0
SUV420H1	67953204	11	-	1	0	0	16	0	0	0
PPP6R3	68255079	11	-	1	0	0	0	4	0	0
PPP6R3	68308173	11	+	1	0	0	0	10	0	0
CPT1A	68534375	11	+	1	0	3	0	0	0	0
MYEOV	69221584	11	-	1	0	0	0	0	15	0
PPFIA1	70176221	11	-	2	0	0	18	1	0	0
RNF121	71596420	11	-	1	0	0	0	47	0	0
NUMA1	71776429	11	-	1	0	0	0	0	1	0
NUMA1	71778698	11	+	1	8	0	0	0	0	0
CLPB	72090653	11	+	1	0	0	3	0	0	0
FCHSD2	72747701	11	+	2	0	0	0	1	0	6
FCHSD2	72762341	11	-	1	0	0	17	0	0	0
FCHSD2	72782384	11	-	1	0	0	3	0	0	0
FAM168A	73141373	11	+	1	0	0	0	1	0	0
C2CD3	73762143	11	+	1	0	0	0	0	0	1
C2CD3	73791133	11	+	1	0	0	16	0	0	0
C2CD3	73844341	11	-	1	0	4	0	0	0	0
PGM2L1	74078892	11	-	1	0	0	0	0	8	0
UVRAG	75720828	11	+	1	0	0	2	0	0	0
UVRAG	75724629	11	-	1	0	0	1	0	0	0
UVRAG	75746625	11	-	1	0	0	0	10	0	0
RSF1	77412866	11	-	1	0	0	0	0	8	0
INTS4	77684586	11	+	1	0	0	0	1	0	0
ODZ4	79416733	11	-	2	0	1	0	13	0	0
PICALM	85699268	11	-	1	5	0	0	0	0	0
TAF1D	93470192	11	+	1	6	0	0	0	0	0
MTMR2	95586631	11	+	1	0	0	4	0	0	0
MTMR2	95628024	11	-	2	0	0	0	41	0	1
JRKL	96877115	11	+	1	0	284	0	0	0	0
CNTN5	98478566	11	-	2	0	0	0	3	0	7
CARD18	105078318	11	-	2	0	0	95	0	0	1
CARD18	105104661	11	-	1	0	24	0	0	0	0
AASDHPPT	105964962	11	+	1	0	0	0	3	0	0
CUL5	107959033	11	-	1	0	2	0	0	0	0
IL18	112035935	11	+	1	0	0	1	0	0	0
UBE4A	118250161	11	-	2	0	0	22	1	0	0
ARHGEF12	120224561	11	+	1	0	0	0	22	0	0
ARHGEF12	120256824	11	-	1	0	0	0	0	57	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
SORL1	121378462	11	+	1	0	1	0	0	0	0
BLID	122061778	11	-	2	0	0	5	0	0	4
VWA5A	123996875	11	-	1	0	3	0	0	0	0
CHEK1	125531247	11	-	1	0	0	0	0	2	0
FLI1	128542610	11	+	1	0	8	0	0	0	0
ZBTB44	130146738	11	-	3	0	0	21	9	0	5
NCAPD3	134083511	11	+	1	0	0	0	0	147	0
KDM5A	455781	12	-	1	0	0	14	0	0	0
WNK1	909752	12	+	1	0	0	0	2	0	0
ERC1	1346864	12	-	1	0	0	1	0	0	0
ERC1	1351760	12	-	1	66	0	0	0	0	0
ERC1	1370444	12	-	1	0	0	16	0	0	0
ERC1	1444377	12	-	1	0	0	0	4	0	0
ADIPOR2	1809986	12	+	1	0	0	0	0	2	0
PARP11	3942104	12	+	1	0	93	0	0	0	0
PARP11	4029425	12	-	2	0	0	53	1	0	0
ANO2	5861163	12	+	1	0	0	0	5	0	0
ANO2	5870064	12	-	1	0	0	0	0	0	10
VWF	6215131	12	+	1	0	0	5	0	0	0
VWF	6224407	12	+	1	0	1	0	0	0	0
VWF	6248427	12	-	1	0	0	0	11	0	0
TAPBPL	6565317	12	-	1	0	2	0	0	0	0
NCAPD2	6626196	12	-	2	0	0	0	5	0	3
CHD4	6693529	12	+	1	9	0	0	0	0	0
CHD4	6698549	12	-	1	0	0	1	0	0	0
CHD4	6701424	12	+	1	0	0	0	7	0	0
ZNF384	6783476	12	-	1	0	0	0	0	0	3
CD4	6914975	12	+	1	0	0	43	0	0	0
LRRC23	7015419	12	-	1	1	0	0	0	0	0
ENO2	7028800	12	-	1	0	22	0	0	0	0
ATN1	7042992	12	-	1	0	0	0	0	2	0
LPCAT3	7122710	12	+	2	0	0	0	23	1	0
PEX5	7347929	12	+	1	0	0	0	1	0	0
CLEC4C	7894395	12	-	1	0	0	0	0	0	5
CLEC2D	9829702	12	-	1	0	0	0	0	0	2
SLCO1B1	21265139	12	-	1	0	0	2	0	0	0
ETNK1	23213117	12	+	1	0	0	18	0	0	0
TMTC1	29918433	12	-	1	0	0	0	0	0	1
DNM1L	32857451	12	-	1	0	0	18	0	0	0
KIF21A	39718159	12	+	1	0	0	0	0	6	0
LRRK2	40688085	12	+	3	0	14	0	11	0	10
PDZRN4	41692201	12	+	1	0	1	0	0	0	0
ARID2	46225911	12	+	1	0	0	0	0	2	0
SLC38A2	46838575	12	-	1	0	1	0	0	0	0
SLC38A4	47074934	12	+	1	0	0	14	0	0	0
RPAP3	48064867	12	+	1	0	17	0	0	0	0
RPAP3	48089644	12	-	1	0	0	0	31	0	0
CCNT1	49083670	12	+	1	44	0	0	0	0	0
SPATS2	49838668	12	+	1	0	5	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
SPATS2	49878199	12	+	1	0	0	0	0	0	1
SPATS2	49899787	12	+	1	0	1	0	0	0	0
FMNL3	50095069	12	-	1	33	0	0	0	0	0
LIMA1	50681976	12	+	1	0	0	0	0	5	0
DIP2B	50940285	12	+	1	0	0	0	8	0	0
DIP2B	51038968	12	+	1	0	0	1	0	0	0
ATF1	51213310	12	+	1	0	0	7	0	0	0
SP1	53780923	12	+	1	0	0	0	3	0	0
ATF7	53990283	12	-	1	0	0	0	7	0	0
NCKAP1L	54914150	12	+	1	4	0	0	0	0	0
DCD	55062397	12	-	1	0	0	0	3	0	0
SARNP	56158540	12	-	1	0	1	0	0	0	0
SARNP	56184183	12	+	1	0	0	0	0	0	1
SARNP	56184867	12	+	1	21	0	0	0	0	0
BAZ2A	57025606	12	+	1	0	0	0	7	0	0
ATP5B	57036961	12	-	1	0	0	0	0	12	0
ATP5B	57045137	12	+	1	0	0	0	0	0	2
PRIM1	57123576	12	-	1	0	0	52	0	0	0
PRIM1	57125963	12	-	1	0	1	0	0	0	0
R3HDM2	57738347	12	+	1	0	0	0	139	0	0
INHBC	57782855	12	+	1	0	0	0	1	0	0
SLC16A7	60046866	12	-	1	0	1	0	0	0	0
SLC16A7	60569274	12	+	1	0	0	0	1	0	0
FAM19A2	61442083	12	-	1	0	0	0	0	183	0
FAM19A2	62153137	12	+	1	0	5	0	0	0	0
FAM19A2	62427441	12	+	1	0	0	1	0	0	0
TBK1	64879882	12	+	1	0	0	0	1	0	0
HMGA2	66291604	12	-	1	0	28	0	0	0	0
CPSF6	69658144	12	+	2	145	0	0	6	0	0
TRHDE	73509417	12	-	1	0	0	0	0	1	0
E2F7	77495808	12	-	1	0	0	0	4	0	0
PPP1R12A	80171918	12	-	1	0	0	0	0	0	2
OTOGL	80606997	12	-	1	0	0	0	5	0	0
RASSF9	86196184	12	-	1	0	0	4	0	0	0
KITLG	88815990	12	-	1	0	0	3	0	0	0
BTG1	92656856	12	-	1	0	0	33	0	0	0
CRADD	94145376	12	+	1	0	3	0	0	0	0
CRADD	94346418	12	+	3	0	1	0	29	5	0
CDK17	96704018	12	+	1	10	0	0	0	0	0
CHPT1	102096694	12	+	1	0	0	0	0	0	1
CCDC53	102449933	12	-	1	0	0	0	3	0	0
C12orf48	102568284	12	+	1	0	0	0	6	0	0
PMCH	102592986	12	-	2	0	0	4	7	0	0
IFT81	110630240	12	-	2	0	0	18	12	0	0
VPS29	110930942	12	-	1	0	1	0	0	0	0
SPPL3	121227735	12	+	1	0	0	4	0	0	0
SPPL3	121314729	12	+	1	0	36	0	0	0	0
P2RX7	121620545	12	-	1	0	0	68	0	0	0
VPS33A	122730031	12	-	1	0	0	0	0	1	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
CLIP1	122823135	12	+	1	0	9	0	0	0	0
ZCCHC8	122974040	12	-	1	0	0	0	4	0	0
KNTC1	123055187	12	+	1	0	23	0	0	0	0
SBNO1	123788178	12	-	1	0	0	0	0	0	25
SBNO1	123791045	12	+	1	140	0	0	0	0	0
IFT88	21180690	13	+	1	0	2	0	0	0	0
IFT88	21224153	13	+	1	0	2	0	0	0	0
EFHA1	22158724	13	-	1	0	0	0	0	0	4
CDK8	26943413	13	-	1	0	0	0	0	0	3
RPL21	27791887	13	-	1	0	0	0	14	0	0
PAN3	28821854	13	-	1	0	0	0	1	0	0
PDS5B	33345940	13	+	1	0	0	0	0	0	2
PDS5B	33352395	13	-	1	0	0	0	0	45	0
ELF1	41550261	13	+	1	41	0	0	0	0	0
MTRF1	41826888	13	-	1	0	8	0	0	0	0
ENOX1	44307418	13	+	1	0	0	0	0	0	15
TSC22D1	45037135	13	-	1	0	0	0	0	0	1
COG3	46076450	13	-	1	5	0	0	0	0	0
PCDH17	58228813	13	-	1	0	0	1	0	0	0
TDRD3	61044018	13	-	1	0	0	4	0	0	0
PCDH9	64638011	13	-	1	0	1	0	0	0	0
PCDH9	67713046	13	-	2	0	0	10	0	1	0
PCDH9	67947036	13	-	1	0	32	0	0	0	0
KLHL1	70609223	13	-	1	0	1	0	0	0	0
KLHL1	70670752	13	-	1	1	0	0	0	0	0
KLHL1	71308746	13	-	1	0	0	5	0	0	0
DACH1	72176962	13	-	1	9	0	0	0	0	0
DACH1	72398193	13	-	1	0	0	2	0	0	0
DACH1	72532639	13	+	1	5	0	0	0	0	0
KLF12	74642892	13	-	2	0	0	19	0	1	0
UCHL3	76130114	13	-	1	0	0	4	0	0	0
MYCBP2	77802122	13	-	1	0	6	0	0	0	0
RBM26	79926994	13	-	1	0	0	37	0	0	0
SLITRK1	83608222	13	-	1	0	0	0	7	0	0
SLITRK1	83802768	13	+	1	0	0	0	0	0	5
SLITRK1	85199968	13	-	1	0	0	0	0	0	1
SLITRK5	89363434	13	+	1	0	0	1	0	0	0
SLITRK5	89641525	13	+	1	0	0	0	0	8	0
GPC5	92103005	13	+	1	0	0	0	1	0	0
GPC5	92150126	13	-	1	0	0	2	0	0	0
GPC5	92408666	13	-	1	13	0	0	0	0	0
UGGT2	96669766	13	-	1	0	0	2	0	0	0
HS6ST3	97515733	13	+	1	0	8	0	0	0	0
STK24	99105044	13	-	1	0	0	0	0	9	0
DAOA	105989263	13	-	1	0	0	20	0	0	0
TNFSF13B	108926035	13	-	1	0	1	0	0	0	0
MYO16	109556509	13	-	1	0	0	0	0	40	0
OR4E2	22408456	14	+	1	0	0	10	0	0	0
OR4E2	22531403	14	+	1	0	2	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
HOMEZ	23743382	14	+	1	0	0	0	1	0	0
BCL2L2-PABPN1	23782136	14	-	1	0	0	0	14	0	0
CMA1	24970776	14	-	1	0	0	27	0	0	0
SCFD1	31150001	14	+	1	0	1	0	0	0	0
SRP54	35465895	14	-	1	0	2	0	0	0	0
RALGAPA1	36172893	14	-	1	0	0	9	0	0	0
LRFN5	42982094	14	+	1	0	3	0	0	0	0
LRFN5	43189083	14	+	1	0	0	0	0	0	1
LRFN5	43330881	14	+	1	0	0	19	0	0	0
MDGA2	47676850	14	-	1	1	0	0	0	0	0
NEMF	50269068	14	-	1	0	0	0	0	0	1
MAP4K5	50907539	14	-	1	0	4	0	0	0	0
ARID4A	58755750	14	+	1	0	0	0	0	3	0
ARID4A	58793175	14	+	1	0	1	0	0	0	0
TRMT5	61444970	14	+	1	0	1	0	0	0	0
RAD51L1	68502354	14	-	1	0	0	1	0	0	0
PCNX	71389597	14	-	2	0	1	0	14	0	0
PCNX	71453311	14	+	1	0	0	0	35	0	0
PCNX	71500719	14	+	1	0	0	17	0	0	0
PTGR2	74324316	14	-	1	0	0	28	0	0	0
CEP128	81327817	14	+	1	0	0	0	0	0	1
GTF2A1	81657451	14	+	4	4	199	0	0	240	8
SEL1L	83603687	14	-	1	0	0	0	8	0	0
SMEK1	91941829	14	-	1	0	0	0	0	96	0
BTBD7	93723706	14	+	1	0	2	0	0	0	0
PAPOLA	96983681	14	+	1	0	0	0	4	0	0
RTL1	101447688	14	+	1	0	2	0	0	0	0
TMEM121	106291690	14	+	1	0	0	0	0	0	2
TMEM121	106308621	14	+	1	0	0	5	0	0	0
TMEM121	106336150	14	-	1	0	0	0	11	0	0
TMEM121	106339486	14	-	1	0	0	0	0	1	0
TMEM121	106462920	14	+	1	1	0	0	0	0	0
TMEM121	106556639	14	+	1	30	0	0	0	0	0
TMEM121	106583170	14	+	1	0	0	25	0	0	0
TMEM121	106583304	14	+	1	20	0	0	0	0	0
TMEM121	106909186	14	+	1	0	1	0	0	0	0
TMEM121	106930788	14	+	1	0	0	0	0	0	2
FAM189A1	29713872	15	-	1	0	0	1	0	0	0
KLF13	31575703	15	+	1	0	0	10	0	0	0
RYR3	33991131	15	-	1	0	0	0	0	0	2
TMCO5A	38034764	15	+	1	0	0	0	22	0	0
SPRED1	38608003	15	-	1	0	0	0	3	0	0
FAM98B	38770767	15	-	1	0	0	3	0	0	0
EIF2AK4	40229093	15	+	1	0	0	19	0	0	0
BUB1B	40465042	15	-	2	0	0	0	432	3	0
BUB1B	40469539	15	+	1	0	0	0	0	13	0
CASC5	40896714	15	+	1	0	0	1	0	0	0
NDUFAF1	41682955	15	+	1	0	0	0	2	0	0
MGA	41981067	15	-	1	0	5	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
MGA	42026439	15	+	1	0	0	0	1	0	0
MGA	42054398	15	+	1	0	0	0	1	0	0
MAPKBP1	42077989	15	+	1	0	0	0	21	0	0
STARD9	42944136	15	+	1	0	0	1	0	0	0
UBR1	43378849	15	-	1	0	4	0	0	0	0
TUBGCP4	43668434	15	+	1	0	0	0	2	0	0
TP53BP1	43769721	15	-	1	0	2	0	0	0	0
CTDSPL2	44764536	15	+	1	0	4	0	0	0	0
SEMA6D	47711231	15	+	1	0	0	0	1	0	0
MYO5A	52746172	15	+	1	0	0	0	8	0	0
KIAA1370	52947620	15	-	1	0	0	0	8	0	0
UNC13C	54983003	15	+	1	0	0	0	34	0	0
PIGB	55634688	15	-	1	0	0	19	0	0	0
CCPG1	55688577	15	+	1	0	1	0	0	0	0
TCF12	57234960	15	+	1	0	3	0	0	0	0
MYO1E	59510476	15	-	1	0	0	0	2	0	0
BNIP2	59957960	15	-	1	0	0	35	0	0	0
VPS13C	62176195	15	+	1	0	0	0	0	0	17
VPS13C	62269723	15	+	1	0	0	0	0	1	0
VPS13C	62270157	15	-	1	0	2	0	0	0	0
CSNK1G1	64542284	15	+	1	0	0	0	5	0	0
ZNF609	64848741	15	+	1	0	0	40	0	0	0
MTFMT	65311162	15	+	1	0	0	6	0	0	0
DENND4A	66058292	15	-	1	0	0	0	0	0	1
RAB11A	66179202	15	-	1	0	0	1	0	0	0
TIPIN	66642325	15	+	1	0	0	0	0	0	27
GLCE	69481479	15	+	2	0	0	17	1	0	0
UACA	70749183	15	-	1	0	0	0	11	0	0
MYO9A	72298697	15	-	2	0	0	0	2	0	5
NPTN	73910045	15	+	1	0	0	0	0	3	0
UBL7	74774947	15	-	3	0	0	39	2	7	0
EDC3	74955981	15	-	1	0	0	2	0	0	0
EDC3	74968915	15	-	1	6	0	0	0	0	0
MPI	75177302	15	+	1	0	0	0	7	0	0
SCAPER	77082201	15	-	1	0	0	0	0	0	6
HMG20A	77716784	15	-	1	0	0	0	0	0	11
HOMER2	83567428	15	-	1	0	3	0	0	0	0
AKAP13	85963588	15	-	3	0	0	15	2	9	0
AKAP13	86137197	15	+	1	0	0	0	0	2	0
AKAP13	86140773	15	+	1	2	0	0	0	0	0
CRTC3	91123697	15	+	1	0	0	1	0	0	0
BLM	91295407	15	-	1	0	153	0	0	0	0
BLM	91307644	15	+	1	0	0	0	0	0	8
MCTP2	94907279	15	-	1	0	1	0	0	0	0
LRRC28	99840101	15	-	1	0	0	0	0	0	2
MEF2A	100214658	15	+	1	43	0	0	0	0	0
CHSY1	101753940	15	+	1	0	0	7	0	0	0
TARSL2	102205148	15	+	1	0	0	0	0	1	0
NPRL3	181296	16	-	1	0	1	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
AXIN1	369236	16	+	3	0	6	0	6	0	4
RAB11FIP3	537891	16	-	1	0	0	0	0	1	0
SOLH	588073	16	-	1	0	0	8	0	0	0
UNKL	1431358	16	-	1	0	0	0	8	0	0
HN1L	1734344	16	+	1	0	0	0	0	0	1
SPSB3	1829728	16	-	1	0	6	0	0	0	0
FAHD1	1884938	16	-	1	0	0	0	15	0	0
PKD1	2139517	16	-	1	0	4	0	0	0	0
ABCA3	2362132	16	+	1	2	0	0	0	0	0
ABCA3	2427330	16	-	1	0	0	0	1	0	0
ABCA3	2432519	16	+	1	0	0	0	1	0	0
CREBBP	3800922	16	-	1	0	0	0	2	0	0
CREBBP	3804789	16	-	1	0	0	16	0	0	0
CREBBP	3823552	16	-	1	0	0	0	0	13	0
CREBBP	3849961	16	+	1	0	0	2	0	0	0
CREBBP	3865522	16	-	1	0	0	0	6	0	0
CREBBP	3898362	16	-	1	0	1	0	0	0	0
CREBBP	3913529	16	+	1	0	0	3	0	0	0
CIITA	10949202	16	+	1	0	0	4	0	0	0
MKL2	14187151	16	+	1	0	0	3	0	0	0
C16orf45	15668897	16	-	1	0	0	0	0	0	5
XYLT1	17090215	16	-	2	0	0	0	11	13	0
XYLT1	17426783	16	+	2	4	0	0	0	0	1
XYLT1	17451476	16	+	1	0	0	2	0	0	0
CP110	19537254	16	-	1	0	0	0	1	0	0
LOC81691	20844270	16	+	1	0	0	0	0	2	0
LOC81691	20850265	16	-	1	0	0	0	106	0	0
DCUN1D3	20871099	16	-	2	0	0	103	0	2	0
METTL9	21550629	16	+	1	0	1	0	0	0	0
PRKCB	23996316	16	+	1	0	0	1	0	0	0
RBBP6	24558554	16	-	1	0	1	0	0	0	0
NSMCE1	27261434	16	-	2	7	0	0	1	0	0
IL21R	27406315	16	-	1	0	0	15	0	0	0
CCDC101	28591385	16	+	1	0	2	0	0	0	0
SPN	29596680	16	+	1	0	0	0	0	0	1
SPN	29664321	16	+	1	2	0	0	0	0	0
FBXL19	30944232	16	+	1	0	0	0	0	0	7
MYST1	31131593	16	-	1	0	0	0	10	0	0
PRSS36	31149448	16	-	1	0	0	19	0	0	0
FUS	31196819	16	-	1	0	0	0	0	0	2
ITGAM	31291605	16	+	1	0	2	0	0	0	0
C16orf58	31505450	16	+	1	17	0	0	0	0	0
SHCBP1	46640726	16	+	1	0	3	0	0	0	0
VPS35	46702825	16	-	1	0	0	11	0	0	0
C16orf87	46857472	16	+	1	0	1	0	0	0	0
N4BP1	48616663	16	-	1	0	0	0	0	0	7
PAPD5	50196604	16	-	1	0	129	0	0	0	0
LPCAT2	55591146	16	+	1	0	1	0	0	0	0
GOT2	58891114	16	+	1	0	0	0	0	3	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
CBFB	67116050	16	+	1	0	0	0	0	0	2
CTCF	67639022	16	-	1	0	0	0	0	0	2
PSMB10	67968220	16	-	1	0	0	0	1	0	0
NFATC3	68219371	16	-	2	0	4	3	0	0	0
NFATC3	68255233	16	+	2	272	0	0	5	0	0
NFAT5	69626410	16	+	1	0	0	2	0	0	0
NFAT5	69639531	16	+	1	0	6	0	0	0	0
NFAT5	69711316	16	-	1	0	0	0	4	0	0
KARS	75677729	16	+	1	0	0	25	0	0	0
SNAI3	88756352	16	-	1	10	0	0	0	0	0
ACSF3	89177042	16	+	2	0	0	58	7	0	0
ANKRD11	89415717	16	-	1	0	0	2	0	0	0
ANKRD11	89482963	16	-	1	0	1	0	0	0	0
ANKRD11	89506391	16	-	1	0	6	0	0	0	0
ANKRD11	89527985	16	+	1	0	0	0	0	0	1
ZNF276	89802767	16	+	1	0	0	11	0	0	0
FANCA	89829518	16	-	1	0	0	0	0	0	1
FANCA	89879141	16	-	1	0	4	0	0	0	0
DBNDD1	90066482	16	-	1	0	3	0	0	0	0
ABR	1002777	17	+	1	18	0	0	0	0	0
CRK	1325186	17	-	1	8	0	0	0	0	0
RPA1	1757099	17	+	1	0	0	4	0	0	0
SMG6	2022259	17	+	1	0	0	0	1	0	0
SMG6	2022779	17	+	1	0	1	0	0	0	0
SMG6	2039738	17	+	1	3	0	0	0	0	0
SMG6	2066922	17	+	3	5	0	17	2	0	0
SMG6	2109480	17	+	1	0	0	0	0	0	1
SMG6	2124843	17	+	1	0	0	0	0	1	0
SMG6	2144252	17	+	1	0	0	0	2	0	0
SMG6	2192040	17	-	1	0	0	0	0	0	1
PAFAH1B1	2548122	17	+	1	0	5	0	0	0	0
PAFAH1B1	2551954	17	-	1	4	0	0	0	0	0
PAFAH1B1	2575392	17	+	1	0	1	0	0	0	0
RAP1GAP2	2888530	17	+	1	0	0	0	34	0	0
C17orf85	3727155	17	+	1	0	0	0	0	0	1
ZZEF1	3922592	17	+	1	0	0	38	0	0	0
ZZEF1	3973781	17	+	1	0	0	0	0	0	1
ZZEF1	3988485	17	+	1	0	0	3	0	0	0
ANKFY1	4159812	17	-	1	2	0	0	0	0	0
UBE2G1	4188005	17	-	1	0	0	0	1	0	0
ZFP3	4983970	17	-	1	0	0	15	0	0	0
RABEP1	5201279	17	-	1	0	0	1	0	0	0
RABEP1	5253738	17	-	1	0	0	0	0	0	1
NUP88	5298393	17	-	2	0	0	5	5	0	0
XAF1	6672201	17	+	1	0	0	0	3	0	0
TEKT1	6763306	17	-	1	0	0	1	0	0	0
DLG4	7098115	17	-	1	0	0	0	0	0	1
POLR2A	7392112	17	+	1	7	0	0	0	0	0
POLR2A	7402503	17	-	1	0	14	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
TNFSF12	7441415	17	+	1	0	0	0	0	0	2
TP53	7574938	17	+	1	0	16	0	0	0	0
AURKB	8115592	17	+	1	0	9	0	0	0	0
CTC1	8144800	17	+	1	0	1	0	0	0	0
MYH10	8507520	17	-	1	0	0	0	6	0	0
MYH10	8508258	17	+	1	0	0	6	0	0	0
MYH10	8522639	17	-	1	0	2	0	0	0	0
MAP2K4	11956228	17	-	1	0	0	0	5	0	0
NCOR1	16044635	17	-	1	0	0	2	0	0	0
MPRIP	16990056	17	+	3	0	12	0	3	0	11
DHRS7B	21088272	17	-	3	0	0	20	18	6	0
WSB1	25631374	17	+	1	0	0	0	0	0	1
KIAA0100	26963530	17	+	1	0	2	0	0	0	0
PHF12	27266809	17	-	1	0	0	0	3	0	0
PIPOX	27385250	17	-	1	0	0	0	0	0	14
TAOK1	27805066	17	-	1	0	0	0	0	0	8
EFCAB5	28367497	17	+	1	0	0	0	4	0	0
CPD	28713013	17	+	1	0	1	0	0	0	0
CPD	28740508	17	+	1	0	0	0	0	21	0
NF1	29484344	17	+	1	0	0	0	4	0	0
NF1	29532821	17	+	1	0	0	0	11	0	0
NF1	29575415	17	+	1	0	0	0	0	0	6
NF1	29586874	17	+	1	1	0	0	0	0	0
RFFL	33396107	17	-	2	0	1	0	2	0	0
RFFL	33396970	17	-	1	0	3	0	0	0	0
SLFN11	33686404	17	+	1	0	0	0	1	0	0
SLFN12	33748354	17	-	1	0	0	398	0	0	0
TAF15	34160340	17	+	1	0	0	7	0	0	0
AATF	35391350	17	+	1	0	0	89	0	0	0
SYNRG	35911152	17	-	1	0	0	0	0	0	2
DDX52	36000661	17	-	1	0	0	0	0	32	0
TBC1D3	36383191	17	+	1	0	0	0	3	0	0
SOCS7	36528341	17	+	1	4	0	0	0	0	0
FBXL20	37546388	17	-	1	0	0	0	0	13	0
CASC3	38316430	17	+	1	0	0	0	178	0	0
WIPF2	38406329	17	+	1	0	0	8	0	0	0
WIPF2	38407346	17	-	2	174	0	0	2	0	0
SMARCE1	38802999	17	+	2	0	0	0	7	0	4
KRT33A	39500289	17	+	1	0	0	0	1	0	0
KLHL11	40010861	17	+	1	0	9	0	0	0	0
DNAJC7	40149991	17	+	1	0	2	0	0	0	0
STAT5B	40387135	17	+	1	0	0	0	0	0	2
STAT5B	40421776	17	-	1	0	0	0	1	0	0
STAT3	40501497	17	-	1	0	0	1	0	0	0
ATP6V0A1	40615692	17	-	1	0	0	1	0	0	0
BRCA1	41237456	17	+	1	0	0	4	0	0	0
NBR1	41347825	17	+	1	11	0	0	0	0	0
GPATCH8	42473501	17	-	1	0	0	7	0	0	0
GPATCH8	42509457	17	-	1	0	0	0	0	8	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
GPATCH8	42548771	17	-	1	0	0	20	0	0	0
KIAA1267	44240800	17	+	2	0	0	0	14	0	4
KIAA1267	44241944	17	-	1	0	0	9	0	0	0
KIAA1267	44260079	17	-	1	0	0	0	0	7	0
NSF	44785229	17	-	1	0	0	7	0	0	0
CDC27	45217972	17	+	1	0	1	0	0	0	0
CDC27	45224786	17	+	1	0	0	0	0	0	3
CDC27	45255507	17	-	1	0	6	0	0	0	0
C17orf57	45470661	17	+	2	0	0	0	14	0	4
SKAP1	46280732	17	+	1	0	0	0	26	0	0
SKAP1	46331853	17	+	1	0	0	11	0	0	0
SKAP1	46410674	17	-	2	0	6	0	4	0	0
SKAP1	46414686	17	+	1	4	0	0	0	0	0
SPOP	47691839	17	-	1	0	1	0	0	0	0
MBTD1	49262270	17	-	3	0	4	0	11	12	0
STXBP4	53099643	17	-	1	0	0	6	0	0	0
ANKFN1	54309961	17	-	1	0	0	0	0	1	0
GDPD1	57349326	17	+	1	0	121	0	0	0	0
RPS6KB1	58025956	17	-	1	0	0	13	0	0	0
MED13	60133525	17	+	1	0	0	0	12	0	0
TANC2	61279017	17	+	1	0	0	0	0	85	0
DCAF7	61634260	17	+	1	0	0	0	1	0	0
CCDC47	61842606	17	-	1	0	0	0	0	68	0
DDX42	61868553	17	+	1	2	0	0	0	0	0
CEP95	62521265	17	-	1	0	1	0	0	0	0
NOL11	65733009	17	+	1	0	0	0	0	1	0
KPNA2	66100737	17	-	1	0	1	0	0	0	0
ABCA6	67132092	17	+	1	0	0	0	0	0	10
ABCA10	67211776	17	-	1	0	1	0	0	0	0
KCNJ2	68997467	17	-	1	0	0	2	0	0	0
KCTD2	73055361	17	-	1	0	0	0	6	0	0
GRB2	73340515	17	-	1	0	0	0	3	0	0
GRB2	73375479	17	-	1	0	6	0	0	0	0
RECQL5	73658846	17	-	1	0	0	0	1	0	0
UNK	73789822	17	+	2	0	6	2	0	0	0
UNK	73794567	17	+	1	0	0	0	0	13	0
UNK	73799279	17	+	1	0	0	10	0	0	0
ACOX1	73955732	17	-	1	0	0	6	0	0	0
C17orf106	73987582	17	-	1	0	23	0	0	0	0
SRP68	74057358	17	+	2	0	0	11	12	0	0
SRP68	74059460	17	+	2	0	0	7	2	0	0
FAM100B	74265900	17	+	1	0	0	20	0	0	0
PRCD	74551196	17	-	1	0	0	0	1	0	0
MFSD11	74754480	17	-	1	0	0	0	0	10	0
MFSD11	74763517	17	-	1	0	0	0	0	0	2
SEC14L1	75148094	17	+	1	0	0	0	0	0	8
SEC14L1	75159605	17	+	2	0	0	0	309	6	0
SEPT9	75304232	17	-	1	0	0	0	8	0	0
SEPT9	75329959	17	+	1	0	0	5	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
SEPT9	75586267	17	-	1	0	0	0	0	36	0
TNRC6C	75970508	17	+	2	0	14	0	17	0	0
TNRC6C	75970962	17	+	1	0	0	0	0	0	25
TNRC6C	75990964	17	+	1	0	0	0	8	0	0
TNRC6C	76004322	17	+	1	0	0	1	0	0	0
TNRC6C	76007982	17	+	2	4	0	0	13	0	0
TNRC6C	76043440	17	+	1	0	6	0	0	0	0
TNRC6C	76044580	17	-	1	0	0	10	0	0	0
TNRC6C	76057383	17	+	1	0	18	0	0	0	0
C17orf99	76156163	17	-	1	0	0	0	0	1	0
C17orf99	76156167	17	-	1	0	0	0	0	669	0
AFMID	76197321	17	-	1	0	0	0	0	0	4
AFMID	76203781	17	-	1	0	7	0	0	0	0
TMEM235	76284638	17	-	1	0	0	0	0	0	1
CYTH1	76740547	17	+	1	0	0	0	7	0	0
CYTH1	76751831	17	-	1	0	0	1	0	0	0
USP36	76822867	17	+	1	0	0	0	6	0	0
TBC1D16	77898978	17	+	1	0	0	0	3	0	0
TBC1D16	77993410	17	+	2	0	3	0	0	0	11
RPTOR	78578199	17	-	1	0	0	1	0	0	0
RPTOR	78598417	17	+	2	0	60	0	0	2	0
RPTOR	78699663	17	-	1	0	0	0	0	0	2
RPTOR	78702880	17	-	1	0	0	0	1	0	0
RPTOR	78748001	17	+	1	0	0	0	0	0	2
RPTOR	78750092	17	+	1	0	0	0	3	0	0
RPTOR	78750693	17	-	1	0	0	0	0	9	0
RPTOR	78804741	17	-	1	0	0	26	0	0	0
AZ11	79186979	17	-	1	0	2	0	0	0	0
ACTG1	79478221	17	-	1	0	0	0	0	0	3
NPLOC4	79529132	17	-	1	0	0	5	0	0	0
NPLOC4	79554761	17	+	1	0	0	0	2	0	0
NPLOC4	79563053	17	+	1	0	2	0	0	0	0
NPLOC4	79579463	17	+	1	0	0	0	3	0	0
NPLOC4	79591966	17	+	1	0	3	0	0	0	0
NPLOC4	79601428	17	+	1	0	0	0	11	0	0
HGS	79666381	17	-	1	0	0	0	1	0	0
P4HB	79807359	17	+	3	0	13	915	4	0	0
MAFG	79879287	17	+	1	0	0	1	0	0	0
CSNK1D	80237032	17	+	1	0	0	0	7	0	0
CD7	80270039	17	+	1	0	0	0	0	1	0
WDR45L	80580812	17	-	1	1	0	0	0	0	0
RAB40B	80645196	17	-	1	0	0	89	0	0	0
B3GNTL1	80951155	17	-	1	0	0	0	0	5	0
B3GNTL1	80992728	17	-	1	0	0	0	0	1	0
B3GNTL1	81001310	17	-	1	0	1	0	0	0	0
METRNL	81111850	17	-	1	0	0	0	0	8	0
YES1	798117	18	-	1	0	0	0	0	1	0
SMCHD1	2697308	18	-	1	0	0	0	3	0	0
SMCHD1	2712830	18	-	1	0	0	0	10	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
LPIN2	2950329	18	+	1	0	0	0	0	0	2
ROCK1	18630359	18	-	1	0	0	5	0	0	0
LAMA3	21494586	18	-	1	0	0	1	0	0	0
CDH2	26170987	18	+	1	0	0	2	0	0	0
FAM59A	29974641	18	+	2	0	10	0	7	0	0
DTNA	32150350	18	+	1	0	0	0	6	0	0
ZSCAN30	32861255	18	-	1	0	0	0	1	0	0
CELF4	35782482	18	-	1	0	0	0	0	0	1
CELF4	35978191	18	+	1	0	0	0	15	0	0
CELF4	36843035	18	+	1	0	0	0	6	0	0
CELF4	36885003	18	-	1	0	0	11	0	0	0
CELF4	37084234	18	+	1	0	3	0	0	0	0
SETBP1	42092323	18	+	1	0	0	5	0	0	0
SETBP1	42165373	18	-	1	0	1	0	0	0	0
CDH20	59150781	18	-	2	0	0	227	0	1	0
CDH20	59150785	18	-	1	0	0	3	0	0	0
CDH7	63499403	18	+	1	0	0	1	0	0	0
RTTN	67835838	18	+	1	0	4	0	0	0	0
SOCS6	68274906	18	-	2	0	4	0	9	0	0
ZNF407	72498314	18	+	1	0	0	0	0	0	3
POLRMT	631022	19	-	1	0	2	0	0	0	0
ARID3A	939622	19	-	1	0	7	0	0	0	0
ARID3A	975567	19	-	3	0	0	2	2	56	0
POLR2E	1089701	19	-	1	0	1	0	0	0	0
STK11	1191744	19	+	1	0	0	9	0	0	0
CIRBP	1273109	19	-	2	0	8	0	3	0	0
MUM1	1358403	19	+	1	0	0	0	14	0	0
MUM1	1361375	19	-	1	0	0	0	0	0	1
NDUFS7	1387732	19	-	1	0	0	1	0	0	0
ATP8B3	1810056	19	+	1	0	0	0	2	0	0
BTBD2	1996222	19	-	1	0	0	102	0	0	0
SPPL2B	2334498	19	-	2	24	0	0	3	0	0
GNG7	2571434	19	-	1	0	0	0	1	0	0
GNG7	2663574	19	-	1	0	0	6	0	0	0
GNG7	2672536	19	+	1	0	0	0	1	0	0
GNG7	2684598	19	-	1	0	0	0	0	0	1
GNG7	2690409	19	+	1	0	2	0	0	0	0
ZNF556	2873571	19	-	1	0	0	0	45	0	0
ZNF57	2915689	19	+	1	0	0	0	2	0	0
ZNF57	2917590	19	+	1	0	0	0	0	3	0
ZNF77	2925920	19	-	1	0	0	0	5	0	0
GNA11	3128542	19	+	1	9	0	0	0	0	0
GNA11	3128738	19	-	1	0	0	9	0	0	0
GNA15	3165957	19	-	1	0	4	0	0	0	0
NFIC	3417660	19	+	1	0	0	0	0	2	0
DAPK3	3962389	19	-	1	0	0	0	21	0	0
PIAS4	4024914	19	-	1	5	0	0	0	0	0
CHAF1A	4423257	19	-	1	0	0	5	0	0	0
SAFB	5650537	19	+	1	0	0	0	0	0	33

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
RANBP3	5929321	19	-	3	0	2	0	16	0	3
RFX2	6059812	19	+	2	0	1	11	0	0	0
MLLT1	6248829	19	+	1	0	0	8	0	0	0
SH2D3A	6756966	19	+	1	0	0	0	0	0	2
VAV1	6810473	19	+	1	0	0	0	0	0	5
VAV1	6846800	19	-	1	0	0	0	0	1	0
INSR	7243880	19	-	1	0	6	0	0	0	0
ARHGEF18	7492875	19	+	1	0	0	0	9	0	0
ARHGEF18	7531311	19	+	1	0	0	3	0	0	0
FCER2	7771388	19	-	2	2	0	0	1	0	0
ZNF562	9765586	19	+	2	0	0	0	0	9	1
DNMT1	10274172	19	+	1	0	0	3	0	0	0
ZGLP1	10419262	19	+	2	0	0	0	10	0	7
KRI1	10668940	19	-	1	0	0	0	0	13	0
ILF3	10771049	19	-	1	0	0	0	10	0	0
ILF3	10771247	19	-	1	0	0	0	1	0	0
ILF3	10780585	19	-	1	0	0	1	0	0	0
ILF3	10787296	19	+	1	0	0	0	0	0	2
QTRT1	10814228	19	-	2	0	0	24	3	0	0
C19orf38	10963966	19	-	1	0	0	0	0	2	0
TSPAN16	11426782	19	-	1	0	0	0	1	0	0
TSPAN16	11426788	19	-	1	0	0	0	10	0	0
ZNF20	12215554	19	+	2	0	0	0	12	6	0
ZNF20	12216193	19	-	1	0	0	0	0	8	0
ZNF136	12289615	19	+	1	0	0	0	16	0	0
ZNF136	12313611	19	-	1	0	0	0	0	0	5
ZNF136	12324777	19	-	2	10	0	0	1	0	0
ZNF44	12416721	19	+	1	0	0	2	0	0	0
ZNF490	12700513	19	-	1	0	0	0	0	14	0
ZNF490	12704689	19	-	1	0	3	0	0	0	0
ZNF490	12710384	19	+	1	0	0	0	5	0	0
ASNA1	12852870	19	-	1	0	0	0	0	0	1
LYL1	13212437	19	-	2	0	1	0	0	5	0
CCDC130	13850826	19	-	1	0	0	0	10	0	0
NANOS3	13970316	19	-	1	0	0	0	0	2	0
C19orf57	14001115	19	+	1	0	9	0	0	0	0
RFX1	14107261	19	-	2	0	0	0	189	1	0
CD97	14476158	19	-	2	0	0	0	6	20	0
PKN1	14565483	19	+	2	0	0	0	7	0	1
PKN1	14570433	19	-	1	0	0	0	19	0	0
OR7C1	14900677	19	-	1	0	0	0	0	9	0
OR7A17	14998199	19	-	1	0	0	2	0	0	0
OR7C2	15036355	19	+	1	0	0	6	0	0	0
BRD4	15390032	19	-	1	0	0	2	0	0	0
AKAP8L	15522450	19	-	1	0	0	2	0	0	0
MED26	16720741	19	-	1	0	2	0	0	0	0
MYO9B	17209051	19	+	1	0	6	0	0	0	0
KIAA1683	18383125	19	+	1	0	0	0	21	0	0
ZNF681	23954960	19	+	1	0	0	0	0	0	23

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
ZNF254	24282969	19	+	1	0	3	0	0	0	0
C19orf2	30476430	19	-	1	0	1	0	0	0	0
C19orf2	30503789	19	-	1	0	0	5	0	0	0
ANKRD27	33161390	19	-	1	0	0	0	0	0	8
C19orf55	36253375	19	-	1	0	0	0	14	0	0
TYROBP	36403990	19	+	2	0	0	52	0	224	0
C19orf46	36491300	19	-	1	0	0	0	3	0	0
ZNF529	37039045	19	+	1	0	0	0	0	0	13
ZNF345	37351651	19	+	1	0	4	0	0	0	0
ZNF383	37723369	19	-	1	0	0	0	38	0	0
ZNF527	37873525	19	+	1	0	0	0	7	0	0
ZNF570	37964883	19	+	1	0	0	0	0	0	14
ZFP30	38132727	19	+	1	0	0	0	8	0	0
SPINT2	38771515	19	-	1	0	0	0	28	0	0
IL29	39774382	19	+	1	0	2	0	0	0	0
AKT2	40806455	19	+	1	20	0	0	0	0	0
C19orf47	40848371	19	-	1	0	8	0	0	0	0
HNRNPUL1	41797660	19	+	1	0	0	0	5	0	0
CEACAM21	42074928	19	-	1	0	0	2	0	0	0
DEDD2	42720660	19	-	1	0	0	11	0	0	0
ZNF404	44379659	19	+	1	0	0	0	0	4	0
ZNF284	44580603	19	-	1	0	0	2	0	0	0
ZNF225	44623711	19	-	1	0	0	0	4	0	0
CEACAM16	45220206	19	+	1	0	0	0	0	3	0
CLPTM1	45463125	19	-	1	0	0	0	0	7	0
PRKD2	47215008	19	+	1	0	0	4	0	0	0
STRN4	47230838	19	+	1	0	0	3	0	0	0
AP2S1	47368183	19	+	1	0	0	0	0	0	7
ZC3H4	47609895	19	-	1	0	1	0	0	0	0
NAPA	48008330	19	-	1	0	0	0	0	1	0
NAPA	48011373	19	+	1	0	3	0	0	0	0
GLTSCR1	48133938	19	-	1	0	0	0	0	0	4
CARD8	48729288	19	+	3	0	1	5	0	1	0
CARD8	48737081	19	-	2	0	0	0	7	0	2
CARD8	48746838	19	-	1	0	0	0	9	0	0
NTN5	49174444	19	+	1	0	0	0	2	0	0
FUT2	49189728	19	-	1	0	0	0	0	0	3
GYS1	49473358	19	-	1	0	0	0	1	0	0
RUVBL2	49505674	19	-	1	0	0	0	3	0	0
TRPM4	49673634	19	+	1	0	0	0	9	0	0
TRPM4	49746160	19	+	1	0	0	0	17	0	0
SLC6A16	49821870	19	+	1	0	0	0	4	0	0
SLC6A16	49826584	19	-	1	0	2	0	0	0	0
SLC6A16	49826651	19	+	1	5	0	0	0	0	0
FLT3LG	49986474	19	+	1	45	0	0	0	0	0
NOSIP	50071742	19	+	1	0	0	1	0	0	0
PRR12	50111896	19	+	1	0	0	0	0	125	0
PRR12	50121003	19	+	1	0	0	0	4	0	0
TSKS	50236802	19	-	1	0	0	10	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
CD33	51695410	19	-	1	0	0	0	0	0	2
CD33	51710690	19	+	1	0	58	0	0	0	0
CD33	51732765	19	-	1	0	0	0	0	0	41
ETFB	51859660	19	-	1	0	0	0	0	11	0
ZNF175	52088278	19	+	1	0	0	0	9	0	0
ZNF615	52509292	19	+	1	0	0	0	3	0	0
PPP2R1A	52745199	19	-	1	6	0	0	0	0	0
ZNF480	52820072	19	+	1	0	1	0	0	0	0
ZNF880	52878227	19	+	1	0	0	0	23	0	0
ZNF528	52910662	19	+	1	0	0	0	12	0	0
ZNF808	53037305	19	+	1	0	0	0	2	0	0
ZNF611	53232944	19	-	1	0	0	0	0	0	2
ZNF816-ZNF321P	53417143	19	-	1	0	0	1	0	0	0
DPRX	54126072	19	+	1	0	2	0	0	0	0
LAIR1	54894391	19	-	1	0	3	0	0	0	0
GP6	55533524	19	-	3	0	157	0	3	1	0
PPP1R12C	55622279	19	+	1	0	0	5	0	0	0
ZNF628	55992525	19	-	1	0	2	0	0	0	0
ZSCAN5A	56790467	19	+	1	0	0	0	3	0	0
ZNF667	56960628	19	-	1	43	0	0	0	0	0
ZNF471	57024377	19	-	1	0	0	13	0	0	0
ZNF419	58006908	19	-	1	0	0	0	0	3	0
ZNF586	58304862	19	-	3	0	0	24	0	159	19
ZNF544	58765581	19	-	1	0	0	0	0	0	1
PSMF1	1131612	20	+	1	0	5	0	0	0	0
SDCBP2	1326251	20	+	1	0	0	3	0	0	0
SIRPD	1514569	20	-	1	0	1	0	0	0	0
EBF4	2705531	20	-	1	0	0	0	12	0	0
PTPRA	2917413	20	+	1	0	0	0	13	0	0
PTPRA	2920932	20	-	1	0	0	0	7	0	0
RNF24	3985064	20	-	1	0	0	10	0	0	0
RNF24	3987111	20	-	1	0	0	0	0	0	1
JAG1	11183552	20	+	1	0	0	0	0	0	1
ASXL1	31010166	20	+	1	0	6	0	0	0	0
C20orf112	31088901	20	+	1	0	0	0	0	5	0
CBFA2T2	32138016	20	-	1	0	0	0	0	33	0
GSS	33538304	20	-	1	0	0	0	8	0	0
UQCC	33981686	20	-	1	0	0	0	4	0	0
SAMHD1	35553623	20	-	1	0	0	4	0	0	0
RBL1	35646769	20	+	1	0	0	17	0	0	0
CTNBL1	36360711	20	-	2	0	0	0	12	5	0
STK4	43640225	20	-	1	0	0	0	0	0	1
DNTTIP1	44430013	20	-	1	0	0	0	0	5	0
ZSWIM3	44496324	20	+	1	0	0	0	0	0	3
ZNF334	45106069	20	+	1	0	0	0	0	0	2
NCOA3	46224306	20	-	1	0	0	0	0	97	0
CSE1L	47710835	20	-	1	0	0	9	0	0	0
STAU1	47791786	20	-	2	0	0	3	0	0	9
ADNP	49519540	20	-	1	0	5	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
DPM1	49571588	20	+	1	3	0	0	0	0	0
BCAS1	52424772	20	-	1	0	0	1	0	0	0
CDH26	58546531	20	-	1	0	0	0	0	1	0
COL9A3	61468513	20	-	2	94	0	0	0	0	4
GMEB2	62236873	20	-	1	0	0	0	0	0	1
GMEB2	62237363	20	+	1	0	0	0	0	0	1
STMN3	62266869	20	-	1	0	0	0	0	170	0
ZGPAT	62347035	20	+	1	0	0	0	0	4	0
ABHD16B	62483944	20	+	1	0	0	22	0	0	0
DNAJC5	62552538	20	+	1	0	1	0	0	0	0
PCMTD2	62904193	20	-	1	0	0	0	5	0	0
USP25	17462461	21	-	1	0	0	0	0	0	2
USP25	17687665	21	-	1	0	0	20	0	0	0
USP25	17711986	21	+	1	0	0	71	0	0	0
USP25	17945433	21	+	1	0	42	0	0	0	0
USP25	17962112	21	+	1	0	0	0	0	0	1
USP25	17996453	21	-	1	0	0	0	2	0	0
TMPRSS15	19980466	21	+	1	0	0	13	0	0	0
TMPRSS15	20465068	21	+	2	0	0	0	5	1	0
TMPRSS15	20997304	21	+	1	0	2	0	0	0	0
TMPRSS15	21022508	21	+	1	0	0	0	0	0	3
NCAM2	21708711	21	-	1	0	0	5	0	0	0
N6AMT1	29593553	21	+	1	0	0	50	0	0	0
LTN1	30338130	21	-	1	0	0	0	0	0	6
C21orf63	33914499	21	+	1	0	0	0	0	0	9
MRPS6	35463996	21	-	1	0	0	0	0	0	1
RUNX1	36289195	21	-	1	0	125	0	0	0	0
PDE9A	44148282	21	-	1	0	0	0	0	0	1
TRAPPC10	45442545	21	+	1	0	0	0	145	0	0
TRAPPC10	45456450	21	+	1	0	0	0	0	14	0
TRAPPC10	45473258	21	-	1	0	0	0	3	0	0
PWP2	45529368	21	-	1	1	0	0	0	0	0
PCNT	47757838	21	+	1	0	0	0	0	0	4
PCNT	47812086	21	-	1	0	0	4	0	0	0
DIP2A	47904509	21	-	1	0	0	0	3	0	0
DIP2A	47913867	21	-	1	0	0	0	0	0	6
DIP2A	47949316	21	-	1	0	1	0	0	0	0
DIP2A	47991300	21	+	1	0	9	0	0	0	0
CCT8L2	16870933	22	-	1	0	0	0	0	0	8
SEPT5	19681503	22	-	1	0	0	0	10	0	0
MAPK1	22192178	22	+	2	0	0	0	146	4	0
RGL4	24045082	22	+	2	0	0	11	0	175	0
CABIN1	24476562	22	+	1	0	0	0	3	0	0
SPECC1L	24674899	22	-	1	0	0	11	0	0	0
SPECC1L	24750336	22	-	1	0	0	0	0	0	5
SPECC1L	24765326	22	+	1	0	0	0	35	0	0
ADRBK2	26086140	22	-	3	0	1	0	2	0	2
ADRBK2	26099771	22	+	1	0	0	0	28	0	0
TTC28	28572595	22	+	1	0	0	0	10	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
TTC28	28896904	22	+	1	0	3	0	0	0	0
NF2	30009142	22	+	1	0	26	0	0	0	0
MTMR3	30350190	22	-	1	0	0	0	0	0	1
HORMAD2	30566915	22	-	1	0	0	10	0	0	0
OSM	30669835	22	+	1	11	0	0	0	0	0
SFI1	31898224	22	-	1	0	0	0	0	75	0
RBFOX2	36264889	22	-	1	0	0	0	19	0	0
APOL3	36564711	22	-	1	0	0	10	0	0	0
APOL4	36574719	22	-	1	0	5	0	0	0	0
TXN2	36824848	22	-	1	0	0	0	0	0	1
CYTH4	37688860	22	+	1	0	0	0	2	0	0
KCNJ4	38775674	22	+	1	1	0	0	0	0	0
SMCR7L	39903543	22	-	1	40	0	0	0	0	0
TNRC6B	40602583	22	+	1	0	0	0	0	1	0
MKL1	40987660	22	+	1	0	1	0	0	0	0
ST13	41225384	22	-	1	0	19	0	0	0	0
ST13	41246854	22	+	1	0	0	6	0	0	0
XPNPEP3	41325828	22	+	1	41	0	0	0	0	0
MEI1	42134959	22	+	1	0	1	0	0	0	0
NAGA	42440299	22	-	1	0	0	0	0	0	2
TCF20	42622692	22	+	1	10	0	0	0	0	0
ATXN10	46107327	22	+	2	0	0	1	5	0	0
ATXN10	46122002	22	+	1	0	0	0	0	0	1
ATXN10	46192976	22	-	1	0	0	4	0	0	0
PPARA	46569743	22	-	1	0	0	0	0	0	1
TBC1D22A	47324019	22	-	1	7	0	0	0	0	0
TBC1D22A	47375653	22	-	1	0	9	0	0	0	0
ZBED4	50255878	22	-	1	0	0	0	13	0	0
ZBED4	50280682	22	+	1	0	0	0	0	0	2
ZBED4	50287216	22	+	1	0	0	0	94	0	0
IL17REL	50416250	22	+	3	0	0	1	32	1	0
MLC1	50519592	22	+	1	0	0	0	2	0	0
MOV10L1	50533834	22	+	1	0	0	0	0	1	0
TUBGCP6	50682467	22	-	1	0	5	0	0	0	0
SHANK3	51092222	22	-	2	0	0	0	3	3	0
TCEANC	13676596	X	+	1	0	0	0	23	0	0
KLHL15	24033232	X	-	1	0	0	8	0	0	0
DCAF8L1	27949935	X	-	1	0	0	0	7	0	0
IL1RAPL1	29207160	X	+	2	0	0	0	1	0	2
GK	30726489	X	+	1	1	0	0	0	0	0
MAGEB16	35722828	X	-	1	0	0	8	0	0	0
MID1IP1	38787660	X	+	1	0	0	0	0	26	0
ZNF673	46076689	X	+	1	0	1	0	0	0	0
SLC9A7	46598258	X	-	1	0	0	0	1	0	0
RGN	46929235	X	-	1	19	0	0	0	0	0
ZNF81	47680006	X	-	1	0	4	0	0	0	0
WDR13	48491263	X	+	1	6	0	0	0	0	0
MAGED1	51558158	X	+	1	1	0	0	0	0	0
PHF8	53991550	X	-	1	7	0	0	0	0	0

Supplementary Table 1: IS tracking over time

Gene	IS Locus	Chr	Ori	N Times Found	M6	M9	M12	M17	M21	M24
FAM120C	54184326	X	+	1	0	0	0	1	0	0
VSIG4	65129828	X	+	1	0	0	0	0	0	8
GPR174	78415530	X	+	1	0	0	0	10	0	0
ZNF711	84508408	X	+	3	0	1	90	0	1	0
ZNF711	84512413	X	+	1	0	0	0	11	0	0
DIAPH2	96110052	X	+	1	0	1	0	0	0	0
DCX	110683592	X	-	1	0	0	56	0	0	0
ZCCHC16	111372330	X	-	1	0	1	0	0	0	0
WDR44	117576574	X	+	1	0	0	26	0	0	0
GRIA3	121851596	X	-	1	0	0	1	0	0	0
STAG2	123142584	X	+	1	31	0	0	0	0	0
STAG2	123153281	X	+	1	0	0	0	9	0	0
MAGEC2	141604838	X	-	1	0	0	0	8	0	0
FMR1	146505542	X	-	1	0	0	6	0	0	0
MECP2	153310336	X	-	1	0	0	0	4	0	0
MECP2	153337250	X	+	1	0	1	0	0	0	0
MECP2	153349746	X	-	2	5	0	3	0	0	0
MPP1	154017708	X	+	1	0	0	2	0	0	0
BRCC3	154323944	X	-	1	0	0	19	0	0	0
BRCC3	154337073	X	-	1	0	0	0	1	0	0
CLIC2	154552689	X	+	1	0	0	0	1	0	0
TBL1Y	7098476	Y	+	1	0	0	0	0	0	1
CD24	21175963	Y	+	1	0	2	0	0	0	0