

Table S1. Antibody list

ANTIBODY	SUPPLIER	REFERENCE
H3K9me2	Abcam	ab1220
H3K9me3	Abcam	ab8898
SYCP3	Abcam	ab12452
TRA98	Abcam	ab82527
H3 trimethyl K4	Millipore	07-473
RAD51	Origene	TA322085
DMC1	Santa Cruz	sc-8973
EpCAM	Santa Cruz	sc-53532
Phospho-H2AX	Upstate	05-536
ORF1	Gift from S. Martin	
SPO11	Gift from S. Keeney	

Table S2: Primer and oligonucleotide list

TARGET	SEQUENCE (5'-3')	APPLICATION
<i>βactin</i>	F : AAG TGA CGT TGA CAT CCG R : GAT CCA CAT CTG CTG GAA GG	RT-qPCR
<i>Rrm2</i>	F : CCGAGCTGGAAAGTAAAGCG R : ATGGGAAAGACAACGAAGCG	RT-qPCR
rDNA	F : CCTGTGAATTCTCTGAACTC R : CCTAAACTGCTGACAGGGTG	TE copy number
L1 ORF2	F : GGAGGGACACTTCATTCTCATCA R : GCTGCTCTTGTATTTGGAGCATAGA	RT-qPCR/TE copy number/ChIP-qPCR
L1 3' UTR	F : ATGGACCATGTAGAGACTGCCA R : CAATGGTGTGACGCGTTTGGGA	TE copy number/ChIP-qPCR
L1 Tf	F : CAGCGGTGCGCCATCTTG R : CACCCTCTCACCTGTTTCAGACTAA	RT-qPCR/ChIP-qPCR
L1 A	F : GGATTCCACACGTGATCCTAA R : TCCTCTATGAGCAGACCTGGA	RT-qPCR/ChIP-qPCR
L1 Gf	F : CTCCTTGGCTCCGGGACT R : CAGGAAGGTGGCCGGTTGT	RT-qPCR/ChIP-qPCR
IAP 5' UTR	F : CGGGTCGCGGTAATAAAGGT R : ACTCTCGTTCCCAGCTGAA	TE copy number/ChIP-qPCR
IAPΔ1	F : AACGCTGCTGCTTTAACTCC R : TGCACATAAAGCTGGCACA	RT-qPCR/ChIP-qPCR
IAP LTR	F : CTCCATGTGCTCTGCCTTCC R : CCCCGTCCCTTTTTAGGAGA	TE copy number/ChIP-qPCR
IAP 3' LTR	F : GCACATGCGCAGATTATTTGTT R : CCACATTCGCCGTTACAAGAT	ChIP-qPCR
MuERV-L	F : CAATGGGAAGGTCCAGAAGA R : CCTTGTTACCTCGGAATCCA	RT-qPCR
<i>Vasa</i>	F : CTAGGAAGACCAAATAGTGAATCTGAC R : TCCAGAACCTGTACTACTTCTTCATT	RT-qPCR
<i>Sycp3</i>	F : ATGCTTCGAGGGTGTGGG R : TTCCACCAGGCACCATCTTT	RT-qPCR
<i>Mili</i>	F : ATGGGTCTTGACACAGCATTCC R : AAGGATCAGGCAAAGAGGAAC	RT-qPCR
<i>Maelstrom</i>	F : ACCAGCAAAAATTCCTCAAGGA R : TGACCTCGTGTGCTAGAATAG	RT-qPCR
<i>Miwi</i>	F : TGGAGTGGCTGCAATGAATA R : TTGACACGCTTCTTACCAC	RT-qPCR
<i>Tdrd1</i>	F : ACGAGGAGATGATCCCGATAGA R : ACTTTATGGCAGAAGGAGGAAACA	RT-qPCR
<i>Tdrd9</i>	F : GAAGTTGCTTGACATGGGTGAA R : GCACCAACCTCCTTTAACAGAAG	RT-qPCR
<i>Tdrd5</i>	F : CGTGTGGTATGCTGACCTGAA R : AGCTTCTGTTTTCTTGTCTGGTTGA	RT-qPCR
L1-A antisense	GGTCCCATTGTGCGATTCTCGATCTTA	Small RNA northern

U6	GCAGGGGCCATGCTAATCTTCTGTATTG	Small RNA northern
<i>Bactin</i> promoter	F : CACCCATCGCCAAAACCTTCATCCT R : CGCACAGTGCAGCATTTTTTTACC	ChIP-qPCR
<i>H19</i> ICR	F : ACATTCACACGAGCATCCAGG R : GCTCTTTAGGTTTGGCGCAAT	ChIP-qPCR
Chr14 hotspot	F : TCCTGGTAATTTTTCTTGCTTT R : CCAATCCAATGTCCCTTACA	ChIP-qPCR
Chr1 coldspot	F : TCCAGAGAAGCAGGGACA R : TAACAACATAACAAAAGCCCAAA	ChIP-qPCR