

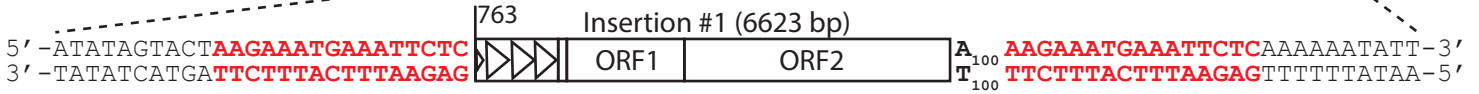
Supplemental Figure 4

Insertion #1

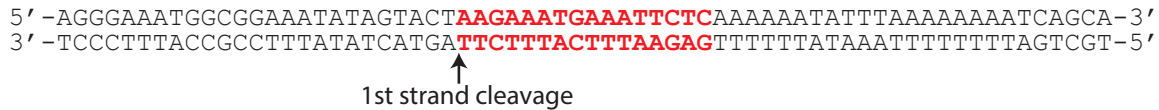
chr12 (qF1), +strand



Filled site:



Empty site:



L1 subfamily: Tf

Monomers: 3 + 77bp

TSD: 16 bp

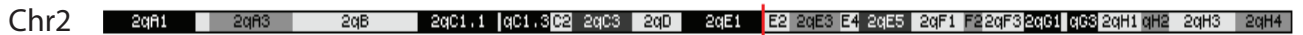
(Chr12, 109324399 - 109324414)

EN motif: 5'-TCTT/AG-3'

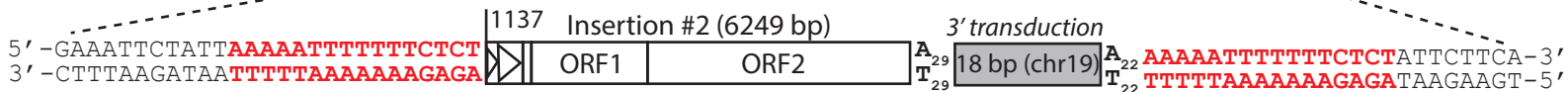
Developmental origin: male (SRB) primordial germline

Insertion #2

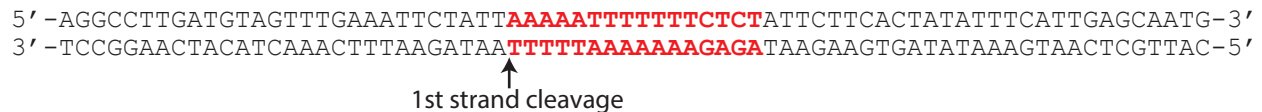
chr2 (qE1), -strand



Filled site:



Empty site:



L1 subfamily: Tf

Monomers: 1 + 124bp

TSD: 16 bp

(Chr2: 101251997-101252012)

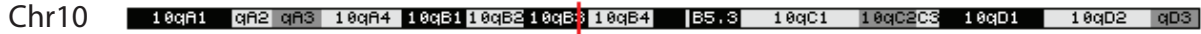
EN motif: 5'-TTTT/AA-3'

Developmental origin: Male (SRB) primordial germline

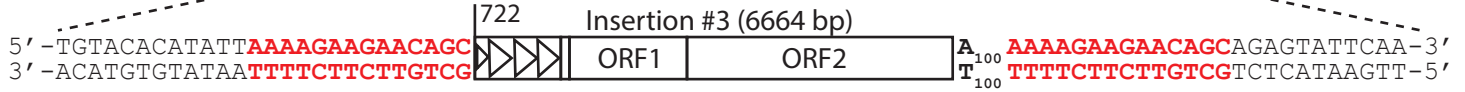
Supplemental Figure 4 (cont'd)

Insertion #3

chr10 (qB3), -strand



Filled site:



Empty site:

5' -TGTCATGAAGAATGTACACATATT AAAAGAAGAACAGC (red) AGAGTATTCAAGGAGGCAGCAAA-3'
 3' -ACAGTACTTCTTACATGTGTATAA TTTTCTTCTTGTCG (red) TCTCATAAGTTCTCCGTCGTTT-5'

↑
1st strand cleavage

L1 subfamily: Tf
 Monomers: 3 + 118 bp

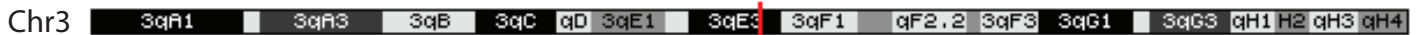
TSD: 14 bp
 (chr10: 55,125,883-55,125,896)

EN motif: 5'-TTTT/AA-3'

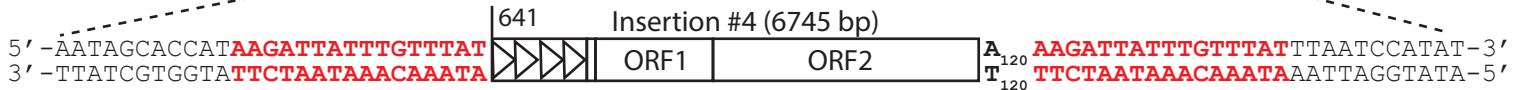
Developmental origin: female (SRA) early embryo

Insertion #4

chr3 (qE3), +strand



Filled site:



Empty site:

5' -ACCTTATAGACTTCTTAATAGCACCAT AAGATTATTTGTTTAT (red) TTAATCCATATTTGCTTAATTTA-3'
 3' -TGGAATATCTGAAGAATTATCGTGGTAT TTCTAATAAACAAATA (red) AATTAGGTATAAACGAATTAAAT-5'

↑
1st strand cleavage

L1 subfamily: Tf
 Monomers: 4 minus 10 bp

TSD: 16 bp
 (chr3: 81,424,430-81,424,445)

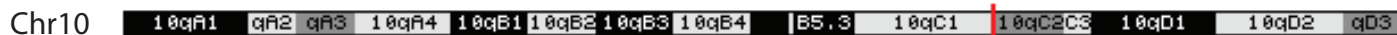
EN motif: 5'-TCTT/AT-3'

Developmental origin: Late germline (SRE or SRF)

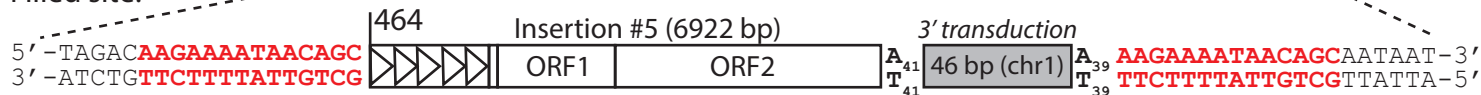
Supplemental Figure 4 (cont'd)

Insertion #5

chr10 (qC1), +strand



Filled site:



Empty site:

5' -GATTTTTGTAAGATATCTTAGTAGAC AAGAAAATAACAGC AAATAATTTATAAATGGAATCGTA -3'
 3' -CTAAAAACATTCTATAGAATCATCTG TTCTTTTATTGTCG TTATTAATATTTACCTTAGCAT -5'

↑
1st strand cleavage

L1 subfamily: Tf
 Monomers: 5 minus 43 bp

TSD: 14 bp
 (chr10: 89,133,398 - 89,133,411)

EN motif: 5'-TCTT/GT-3'

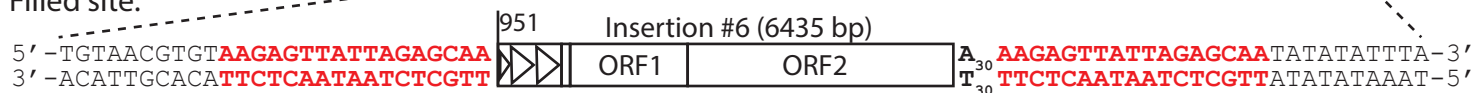
Developmental origin: Female (SRE) early embryo

Insertion #6

chr14 (qE2.3), -strand



Filled site:



Empty site:

5' -CAGAATTTGAGTAACGTGTAACGTGT AAGAGTTATTAGAGCAA TATATATTTATACCATCTTTAAGTT -3'
 3' -GTCTTAAACTCATTGCACATTGCACA TTCTCAATAATCTCGTT TATATATAAATATGGTAGAAATTCAA -5'

↑
1st strand cleavage

L1 subfamily: Tf
 Monomers: 2 + 100bp

TSD: 17 bp
 (Chr14, 107,023,820 - 107,023,836)

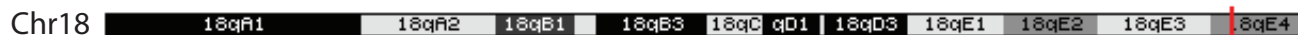
EN motif: 5'-TTCT/AC-3'

Developmental origin: Female (SRCD10) early embryo

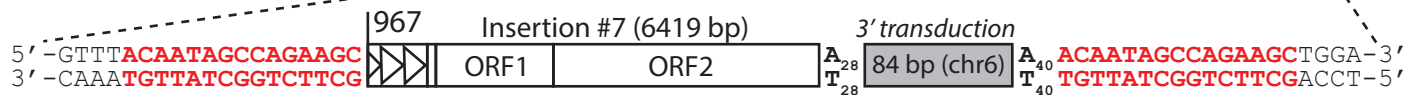
Supplemental Figure 4 (cont'd)

Insertion #7

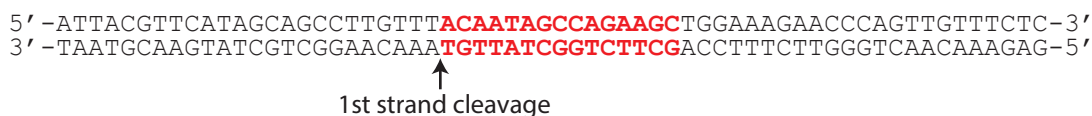
chr18 (qE4), -strand



Filled site:



Empty site:



L1 subfamily: Tf
 Monomers: 2 + 84bp

TSD: 15 bp
 (Chr18: 85,067,455 - 85,067,469)

EN motif: 5'-TTGT/AA-3'

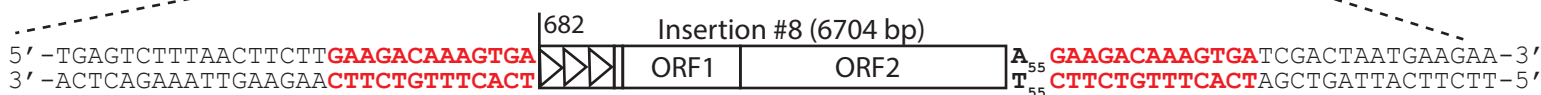
Developmental origin: Male (SRCD14) primordial germline

Insertion #8

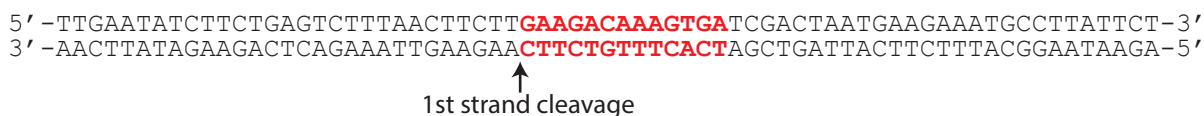
chr17 (qC), +strand



Filled site:



Empty site:



L1 subfamily: Tf
 Monomers: 3 minus 52bp

TSD: 13 bp
 (Chr17: 54,164,875- 54,164,887)

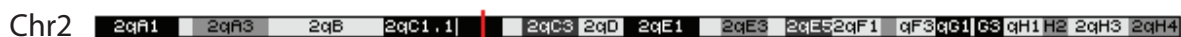
EN motif: 5'-CTTC/AA-3'

Developmental origin: Female (SREF17) early embryo

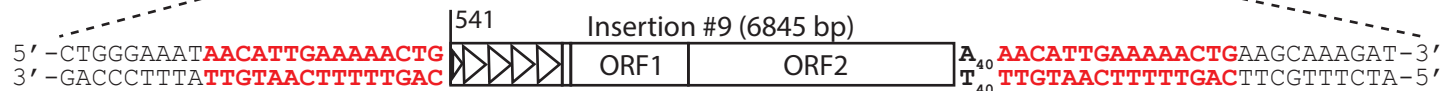
Supplemental Figure 4 (cont'd)

Insertion #9

chr2 (qC1.3), -strand



Filled site:



Empty site:



L1 subfamily: Tf

Monomers: 4 + 90bp

TSD: 15 bp

(Chr2: 65,072,088 - 65,072,102)

EN motif: 5'-TGTT/AT-3'

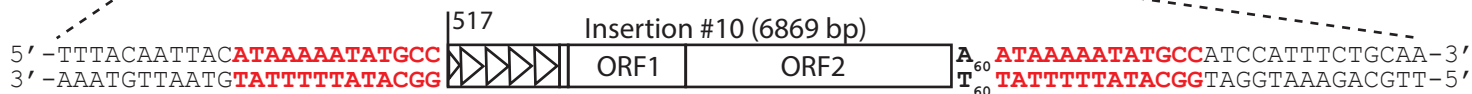
Developmental origin: Ambiguous, late germline? (Female SRCD11 or Male SREF19)

Insertion #10

chr3 (qA1), -strand



Filled site:



Empty site:



L1 subfamily: Tf

Monomers: 4 + 114bp

TSD: 13 bp

(Chr3: 11,610,299 - 11,610,311)

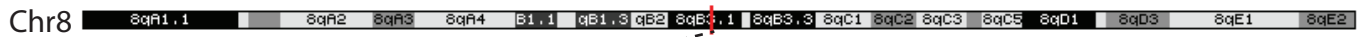
EN motif: 5'-TTAT/GT-3'

Developmental origin: Male early embryo (F2-145)

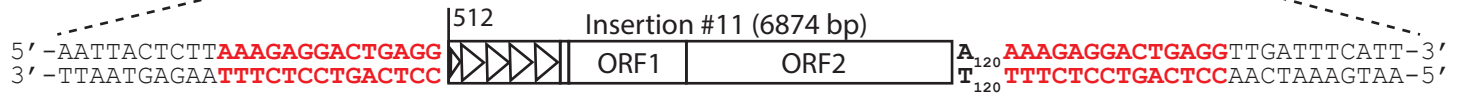
Supplemental Figure 4 (cont'd)

Insertion #11

chr8 (qB3.1), +strand



Filled site:



Empty site:

5' -TCTCTATGATAAAAGAGCTTTACTCTTAAAGAGGACTGAGGTTGATTCATTGAGGGATTTGGGTGAGA-3'

3' -AGAGATACTATTTTCTCGAAATGAGAAATTTCTCCTGACTCCAACTAAAGTAACTCCCTAAACCCACTCT-5'

↑
1st strand cleavage

L1 subfamily: Tf
Monomers: 4 + 119bp

TSD: 14 bp
(Chr8: 63,990,917-63,990,930)

EN motif: 5'-TCTT/AA-3'

Developmental origin: Female (SRA) early embryo

Supplemental Figure S4. Structures of *de novo* L1 T_F insertions identified in this study.

De novo insertions are annotated as described for polymorphic insertions (Fig. S3), and the deduced developmental timing of each insertion is noted.