

## Supplemental Fig S5. Statistics of the sense and antisense R-loops.

(A) Diagram of SO-R-loops, ASO-R-loops, S-AS-R-loops and No-R-loops. The non-TE genes were classified into four categories: (1) genes with sense only R-loops (SO-R-loops), (2) genes with antisense only R-loops (ASO-R-loops), (3) genes with both sense and antisense R-loops (S/AS-R-loops), and (4) genes without R-loops (No-R-loops). (B) Counts of sense (left, dark orange) and antisense (right, cornflower blue) R-loop peaks. (C) A Venn diagram depicting the numbers of genes without R-loops (grey), with sense (dark orange) and antisense (cornflower blue) R-loops. (D) Comparisons of the expression levels of non-TE genes between without R-loops, SO-R-loops, ASO-R-loops and S-AS-R-loops.