

Description of Additional Supplementary Files

Supplementary Data 1: Properties of the ONT sequencing data.

Supplementary Data 2: Outputs of ParasiTE for DRS-Araport11 and DRS-AtRTD3.

Supplementary Data 3: Enrichment analysis of *A. thaliana* TE superfamilies in ATE-G isoform and three TE families in TE-IR events.

Supplementary Data 4: Change in percentage of DNA methylation in TEs between Col-0 and epigenetics mutants.

Supplementary Data 5: Isoform switch analysis of ATE-G isoform candidates using DRS-AtRTD3 as background.

Supplementary Data 6: Isoform switch analysis of ATE-G isoform candidates using ONT-DRS mutant transcriptomes as background.