

**Fig. S1.** RNA read depth of the *Arabidopsis* mtDNA based on the combined data sets of the three biological samples. The curves plot the number of RNA reads mapped to each nucleotide position. The number of reads that correspond to left-to-right transcription and vice versa are represented by green and orange curves on the positive and negative y-axes, respectively. Green and orange boxes represent genes transcribed left to-right and vice versa, respectively. Light green and light orange regions are introns. Green and red squares represent start of transcription and 3' termini, respectively, identified experimentally [36, 42, 44]. Plastid-derived regions (MTPTs) were masked and are depicted with purple boxes. The orf164 (blue box) is transcribed from left to right. Pseudogenes are shown as a dark grey bar and depicted with  $\psi$ .































