

729 **Supplemental Figure and Tables**

730 **Supplemental Figure 1.** Upstream ORFs in the ORF35 transcript

731 **Supplemental Table 1.** Statistics of the Oxford Nanopore PromethION dcDNA and dRNA
732 sequencing.

733 **Supplemental Table 2.** Positions of the TSSs, their sample-specific abundances, and associated
734 promoter elements.

735 **Supplemental Table 3.** Positions of the TESs, their abundances in each sample, and the associated
736 poly(A) signals.

737 **Supplemental Table 4.** The positions of introns and their abundances across different samples.

738 **Supplemental Table 5.** List of spliced (A), non-spliced (B) transcripts detected by LoRTIA, and
739 replication-associated RNAs (C) including their binding energies and target genes.

740 **Supplemental Table 6.** Access identifiers for fastq files generated by long-read sequencing,
741 available in the European Nucleotide Archive (ENA) database.