

Fig S1. m<sup>6</sup>A methylome of SARS-CoV-2 genomic RNA.

- (a) IGV showing the RIP-seq reads of known m<sup>6</sup>A residues at 4,190 position of 28S rRNA, suggesting good enrichment of RIP-seq.
- (b) Correlation analysis of two biological replicates of SARS-CoV-2 RIP-seq data.
- (c) Validation of the  $m^6A$ -marked viral RNA (13  $m^6A$  peaks identified by RIP-seq) by performing  $m^6A$ -IP-qPCR using a different  $m^6A$  antibody (as an orthogonal evidence to the originally used Millipore  $m^6A$  antibody in RIP-seq) in Vero cells at 56 h post infection. Data are represented as mean  $\pm$  SD; N = 3.

- (d) m<sup>6</sup>A peak intensity of SARS-CoV-2-infected Vero cells between 24h and 56h post infection. "peak intensity" is calculated as RPKM<sub>IP</sub>/RPKM<sub>Input</sub> in each peak.
- (e) Immunofluorescence of SARS-CoV-2-infected Huh7 cells (S protein, green) and nuclei (DAPI, blue) at 120h after infection.
- (f) Refined RIP-seq of SARS-CoV-2 RNA harvested from Huh7 cells at 120 hpi showing the distribution of  $m^6A$  reads mapped to SARS-CoV-2 genome (red line). The baseline signal of input samples is represented by grey line and  $m^6A$  peaks are represented by green rectangles along the x axis. A schematic diagram of the SARS-CoV-2 genome is shown below to indicate the location of the  $m^6A$ -enriched sequences. Data are representative of N = 2 determinations.