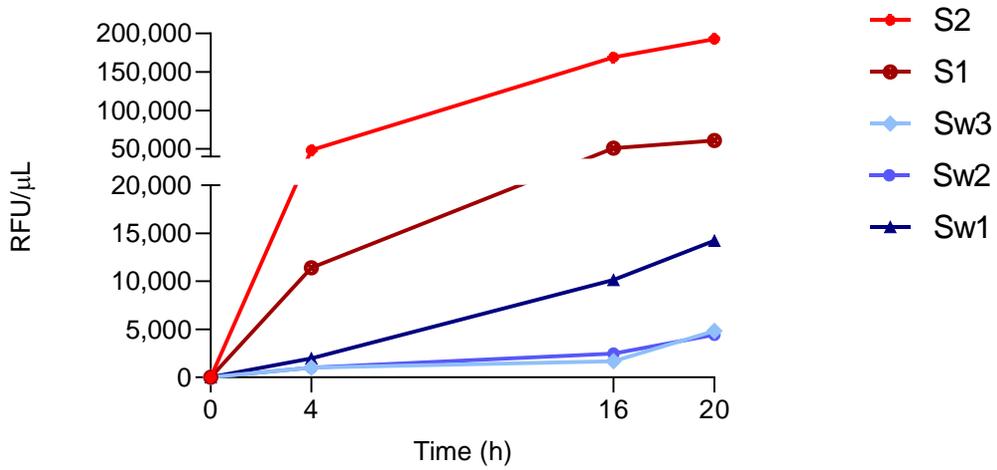
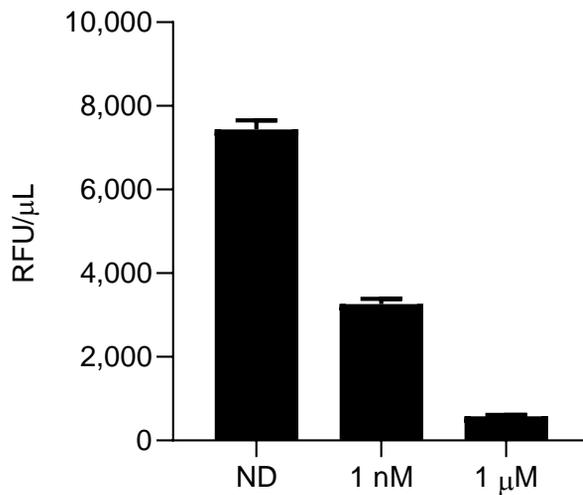


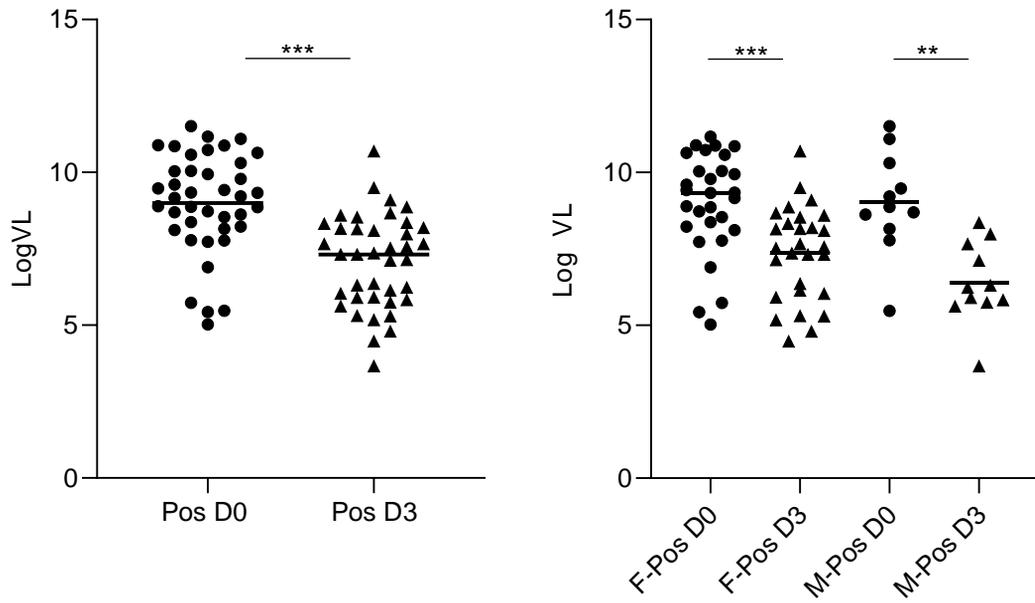
A



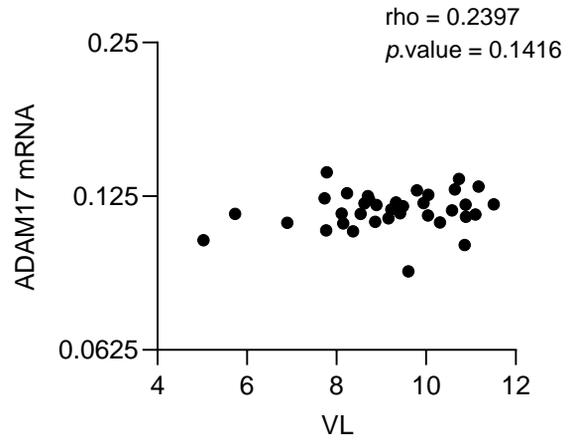
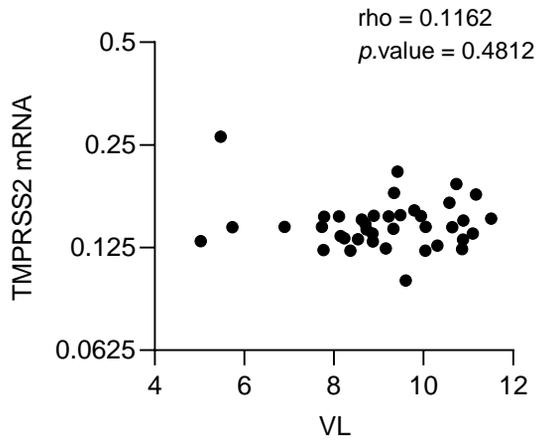
B



**Supplementary Figure S1.** Setting up enzymatic ACE2 activity. **(A)** Time course of soluble ACE2 activity in serum and nasopharyngeal swabs samples. Results are expressed as RFU per microliter of sample. Serum sample (S1 and S2); nasopharyngeal swabs (Sw1, Sw2 and Sw3) **(B)** ACE2 enzymatic activity in nasopharyngeal swabs is blocked by the specific inhibitor, MLN-4760 at 1 nM and 1 μM. ND; no drug. Results are expressed as RFU per microliter after 18h-reaction.



**Supplementary Figure S2.** Viral load in SARS-Cov-2 positive individuals. Right panel: Viral load (Log VL) at day0 and day3 of recruitment. Left panel: Sex-stratified viral load. Data are shown as mean  $\pm$  SEM and analyzed by Mann-Whitney U test, \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .



**Supplementary Figure S3.** Correlation of gene expression of ACE2 shedding-related enzymes and SARS-CoV-2 viral load overtime. Left panel: Correlation of TMPRSS2 gene with viral load (Log VL). Right panel: Correlation of ADAM17 gene with viral load (Log VL). Linear correlation (Spearman) rho and *p*-values are shown.