Supplemental Fig. 1: CryoEM data processing and validation. a. Local resolution map calculated using cryoSPARC. b-c. Representative electron micrograph (c) and class averages (b) of SARS-CoV-2 2P DS S embedded in vitreous ice. Scale bar: 100nm. d. Gold-standard Fourier shell correlation curves. The 0.143 cutoff is indicated by horizontal blue line. e. Particle orientation distribution plot.
Supplemental Fig. 2: Orthogonal views of the classes obtained by 3D classification. Percentages reflect the proportion of particles assigned to each map.

Supplemental Fig. 3: Neutralization of SARS-CoV-2 pseudovirus with human sera from a COVID-19 positive patient.