Atomic Force Microscopy analysis of native infectious and inactivated SARS-CoV-2 virions

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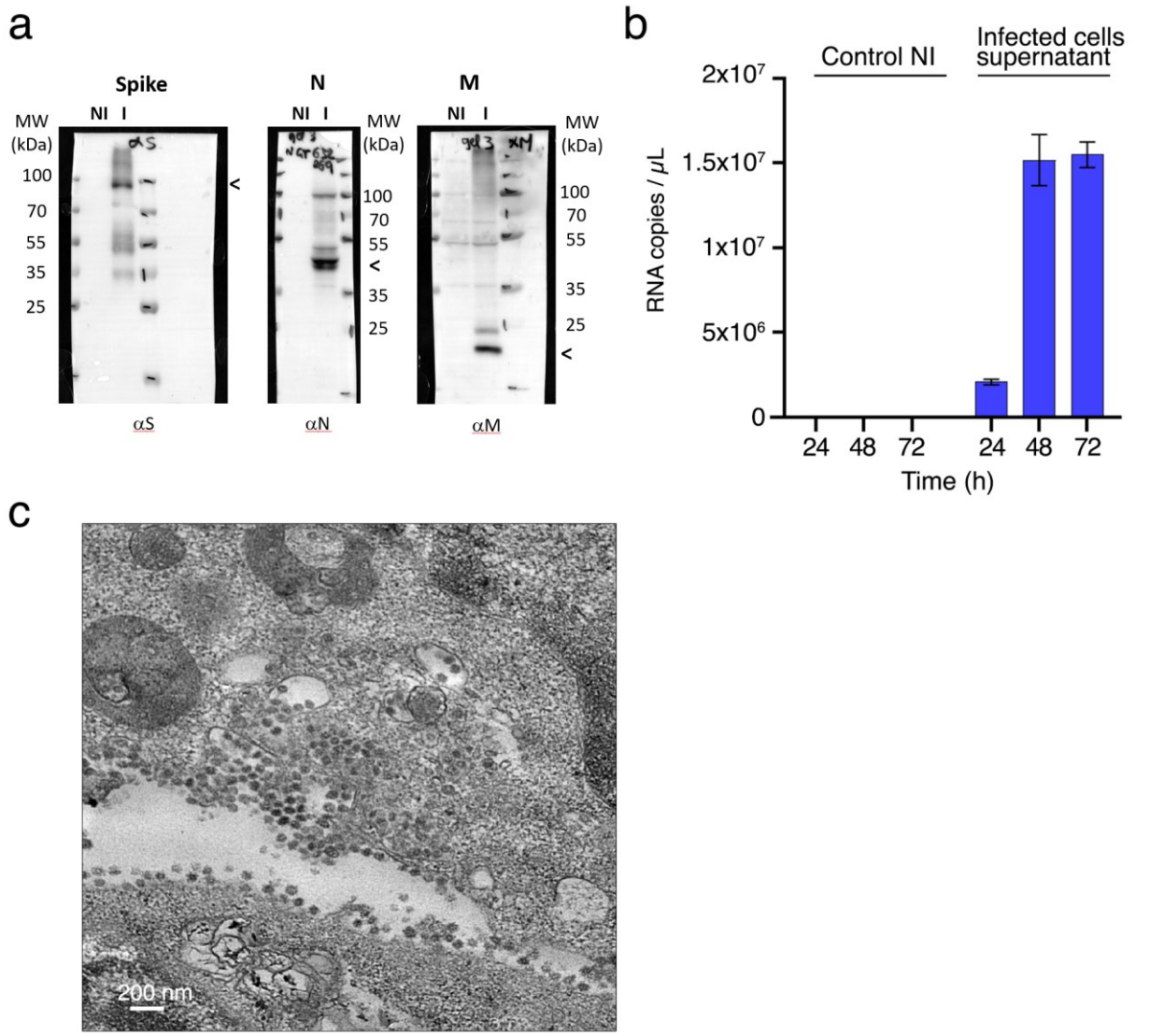
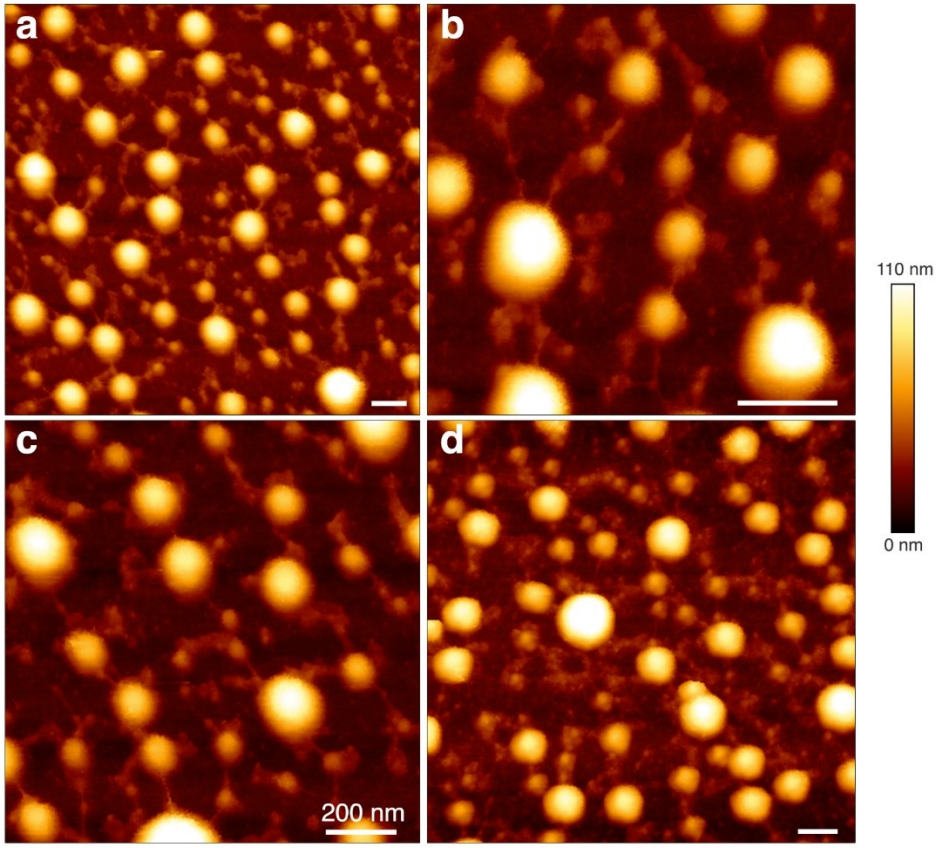
SUPPLEMENTARY INFORMATION

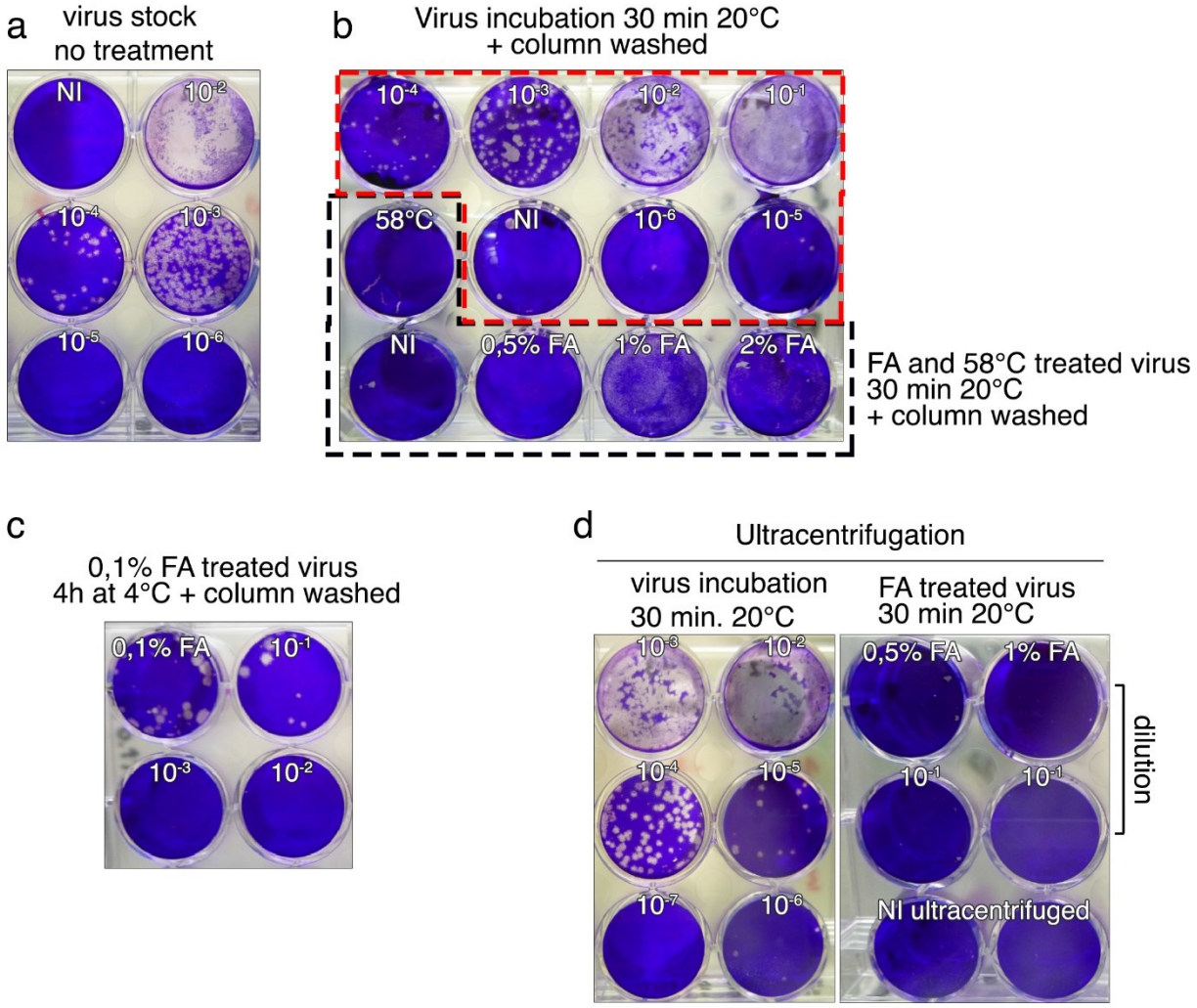
Supplementary Figures



Supplementary Figure S1. SARS-CoV-2 identification. (**a**) Western Blot analysis of SARS-CoV-2 S, N and M proteins in lysates of infected (I) and non infected (NI) VeroE6 cells. (**b**) SARS-CoV-2 production in the cell supernatant followed by qRT-PCR targeting the E gene. (**c**) An example of TEM image of SARS-CoV-2 infected VeroE6 cells for 24h (MOI=0.1)



Supplementary Figure S2. AFM images of native infectious SARS-CoV-2 found embedded in a network of filamentous structures. (a-d) AFM topographic images of infectious native SARS-CoV-2 from cell supernatant directly adsorbed on a mica surface using QI mode AFM in buffer. Scale bars in all panels: 200 nm.



Supplementary Figure S3. Native and inactivated SARS-CoV-2 titration followed by plaque assays (**a**) Viral stock titration by 10-fold dilutions of SARS-CoV-2 specimen from 10^{-2} to 10^{-6}, as well as non-infected cells supernatant (NI) as a negative control. Plaques can be distinguished from the crystal violet monolayer and used for the calculation of virus titers in Plaque Formation Unit/mL (PFU/mL) (**b**) Virus titration after incubation of SARS-CoV-2 specimen for 30 min. at 20°C followed by 5 washes using centrifugal concentrator (red area). Undiluted virus samples incubated for 30 min. at 58°C or 30 min. at 20°C in presence of 0.5%, 1% or 2% Formaldehyde (FA), followed by 5 washes using centrifugal concentrator (black area). (**c**) Virus titration after virus incubation for 4h at 4°C in presence of 0.1% FA. (**d**) Virus recovered from ultracentrifugation after incubation for 30 min. at 20°C in absence (left panel) or in presence of 0.5% or 1% FA.