Supplementary Materials for

Long-term stability and protection efficacy of the RBD-targeting COVID-19 mRNA vaccine in nonhuman primates

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Materials and Methods

Cytokine secretion assays

Serum samples of animals on day 0 and 7 post challenge were collected by centrifugation and heat inactivated at 56℃. Serum concentrations of cytokines were measured with a ProcartaPlex NHP Cytokine/Chemokine/GF 37 plex (Invitrogen, #EXP370-40045-901) according to the manufacturer's instruction. Assays were performed on a Luminex 200™ machine equipped with xPONENT Software (ThermoFisher). We calculated the fold change of the cytokine level on day 7 post challenge compared with day 0. The heatmap of cytokines change were constructed using the pheatmap package (https://cran.rstudio.com/web/packages/pheatmap/index.html). Statistical significance was calculated by Mann-Whitney non-parametric t test.
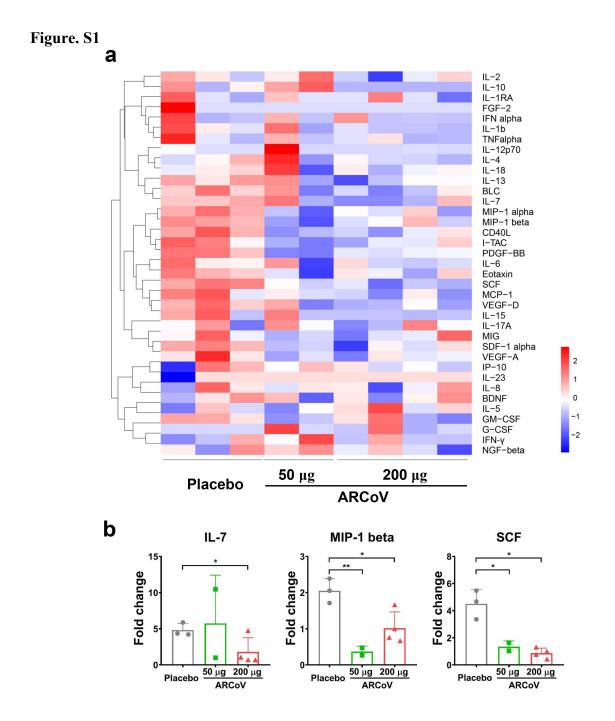
Figure. S1

Fig. S1 Cytokines and chemokines in cynomolgus macaques challenged with SARS-CoV-2.
a. Heatmap deciphering log2 transformed fold change in different groups. b. Statistical significance was calculated by Mann-Whitney non-parametric t test (*p< 0.05, **p< 0.01). The columns indicate median. Statistical P values for the different cytokines were: IL7, P = 0.049; MIP-1 beta, P = 0.0058 (50 μg ARCoV) and P = 0.018 (200 ug ARCoV); SCF, P = 0.023 (50 μg ARCoV) and P = 0.020 (200 μg ARCoV).