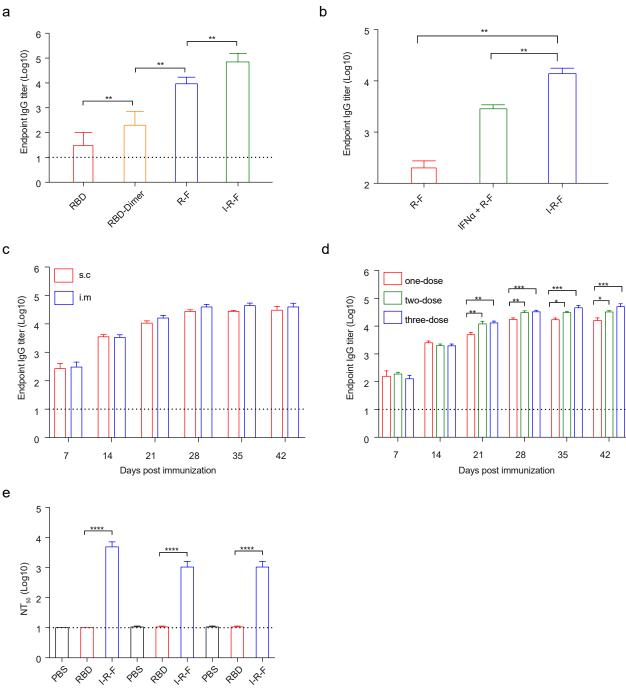
Supplementary information, Fig. S1. I-R-F induces more robust neutralization antibodies than RBD. (a) BALB/c mice (n=6/group) were i.m vaccinated with 10 µg of I-P-F or equimolar of RBD, RBD-dimer, and R-F protein or PBS control with a single vaccination regimen. The levels of RBD-specific IgG in serum on day 28 after immunization were determined by ELISA. (b) BALB/c Mice (n=6/group) were intramuscularly vaccinated with 1 μg of I-R-F or equimolar R-F plus IFNα protein without adjuvant and boosted with the same dose at a 14-day interval. Serum samples were collected on day 14 after the second immunization to evaluate the levels of RBD-specific IgG. (c) BALB/c mice (n=8/group) were immunized intramuscularly or subcutaneously with alum-adjuvanted 10µg of I-R-F and boosted on day 14 after initial immunization with equivalent dose. Serum samples were collected every week to determine the SARS-CoV-2-specific IgG antibody titers by ELISA. (d) BALB/c mice (n=8/group) were immunized intramuscularly with alum-adjuvanted 10 µg of I-R-F by using a single dose (day 0), two-dose (day 0/14), and three-dose (day 0/14/28) immunization procedures, respectively. Sera were collected on days 7, 14, 21, 28, 35, and 42 after the initial immunization and analyzed by ELISA to determine the IgG titer. (e) The neutralization antibody titers in serum described in Fig (2d-2f) on day 28 were determined by SARS-CoV-2 pseudovirus neutralization assay. The dashed line indicates the limit of detection. Data are shown as mean ± SEM. P-values were calculated by one-way ANOVA with multiple comparison tests. ns (not significant), *P < 0.05, **P < 0.01, ***P < 0.001, ****P < 0.0001.



One-dose

No-adjuvant

Low dose