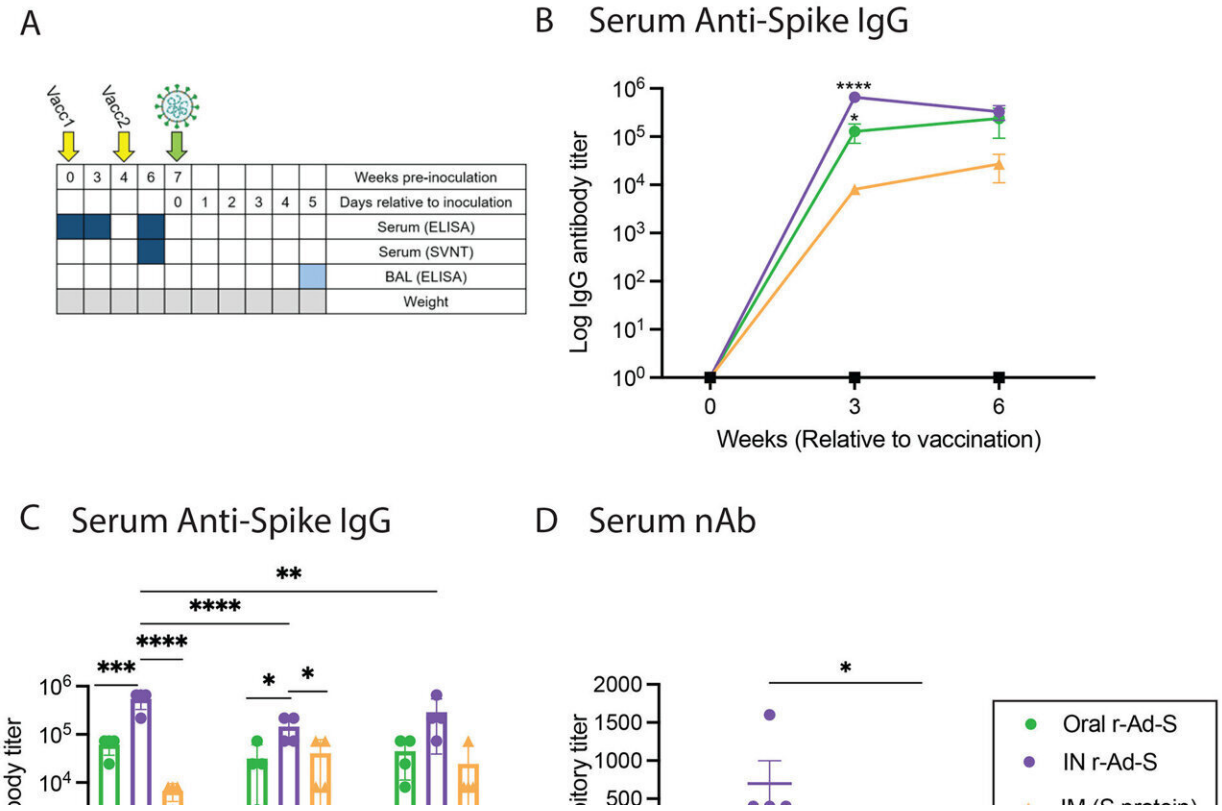
Investigational COVID mucosal vaccine protects against disease and transmission

May 5 2022



Oral and intranasal r-Ad-S vaccination induced robust IgG and IgA antibodies in golden hamsters. Index hamsters were immunized with oral r-Ad-S, intranasal (IN) r-Ad-S, intramuscular (IM) spike protein (S) or mock (oral) (n = 4 per group) and inoculated with SARS-CoV-2 seven weeks later. (A) Experimental design schematic. Figure created with BioRender.com (B) Serum anti-spike protein IgG antibody endpoint titers were measured at weeks 0, 3 and 6 post immunization by enzyme-linked immunosorbent assay (ELISA). (C) Serum anti-spike protein IgG antibody endpoint titers were measured at week 6 post

immunization against the spike protein of the Wuhan, Beta, and Delta SARS-CoV-2 variants by ELISA. (D) Surrogate neutralizing antibodies (antibodies capable of blocking binding of SARS-CoV-2 spike protein to ACE2) titers were measured in serum at week 6. (E) Serum anti-spike protein IgA antibody titers were measured (MSD arbitrary units (AU)/sample) at weeks 0, 3, and 6 post immunization using the MSD platform and normalized to day 0 AU values. (F) anti-spike protein IgA antibodies were measured in BAL fluid using the MSD platform. Data were analyzed by a one-way ANOVA and Dunnett's multiple comparisons. Comparisons were made between vaccinated groups and mock (oral) controls for (B, D, E and F). Error bars represent the standard error of the mean (SEM). *P

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