



Supplementary Figure S1: Production of trivalent eVLPs expressing S protein from 3 betacoronavirus species. (a) Expression of S proteins analyzed by Western-blot in trivalent VBI-2901 recombinant proteins using Rabbit SARS-CoV-2 Spike RBD polyclonal Ab (Sinobiological) crossreacting with SARS-CoV-2 and SARS-CoV-1 S protein, or Rabbit MERS Coronavirus Spike protein S1 polyclonal Ab (Invitrogen). eVLPs produced with Gag plasmid only (empty eVLPs) and recombinant S proteins were used as negative and positive controls respectively. Each lane was loaded with purified eVLPs containing equivalent amount of 5μg of total protein evaluated by standard BCA assay (b) To test immunogenicity of trivalents eVLPs, 5 C57BL/6 mice received 2 doses of trivalent eVLPs formulated with Alum (VBI-2901a). Each dose contained 0.2 μg of S protein based on quantification by ELISA. Ab binding titers against Ancestral Wu-1 S1, Ancestral Wu-1 S2, SARS-CoV-1 S1 and MERS-CoV-1 S1 were measured by ELISA in sera collected 2 weeks after the last immunization using recombinant S protein as described in Suppl. table S1.