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**S3 Fig. Study design of *in vivo* experiments and *in vivo* clinical scoring sheet.**

Summary schematic of the three animal studies performed. In Study 1, hACE2 mice (n=5/group) were immunized with 5µg of BNT162b either by the SC or IM route at day 0 and 40. Blood drawn 10, 20, 30 and 40 days post first dose and subsequently 10 days post second dose of vaccination was used for antibody quantification. 10 days post second dose, splenocytes harvested were analyzed for cellular T cell responses by flow cytometry and ELISpot. Weights and clinical scores were monitored for 10 days post vaccination. In Study 2, hACE2 mice (n=3/group) were immunized with either PBS or 5µg of BNT162b either by the subcutaneous (SC) or intramuscular (IM) route. Blood was drawn one day post-vaccination for whole blood transcriptomics. In Study 3, hACE2 mice (n=5/group) were immunized with 5µg of BNT162b either by the SC or IM route. 10 days post first dose, splenocytes harvested were analyzed for cellular T cell responses by ELISpot.