



Figure S1: Coomassie blue-stained SDS-PAGE of *E. coli* expressing the PRRSV proteins and detection of ELISA titers and serum neutralization titers. The PRRSV proteins (GP3 and M) were expressed as shown in panel **A**. *E. coli* cells containing the indicated constructs were induced for different time points with IPTG at a final concentration of 0.4 mM in culture medium. The pET32a (empty vector) was used as the negative control. The expressed proteins were marked by red frame. **(B)** The expressed proteins GP3 and M were probed by anti-His monoclonal antibodies or PRRSV polyclonal antibodies, respectively. **(C)** Detection of anti-PRRSV antibody titers by ELISA. 8-week-old mice were immunized with BacCE BacD4D-GP2-GP3-2GP4- and BacD4D-2mtGP5-M-infected Sf-9 cells (5×10^7) and commercial MLV vaccine, respectively. Serum samples were collected every week after the first immunization to determine the PRRSV proteins-specific ELISA antibodies. **(D)** Serum neutralization (SN) titers in mice immunized with various immunogens (BacD4D-GP2-GP3-2GP4 and BacD4D-2mtGP5-M and commercial MLV vaccine). BacCE was used as the negative control. Sera were from 5 weeks post vaccination. All data shown represent the mean \pm SE calculated from three independent experiments. A student t-test was conducted for analysis.