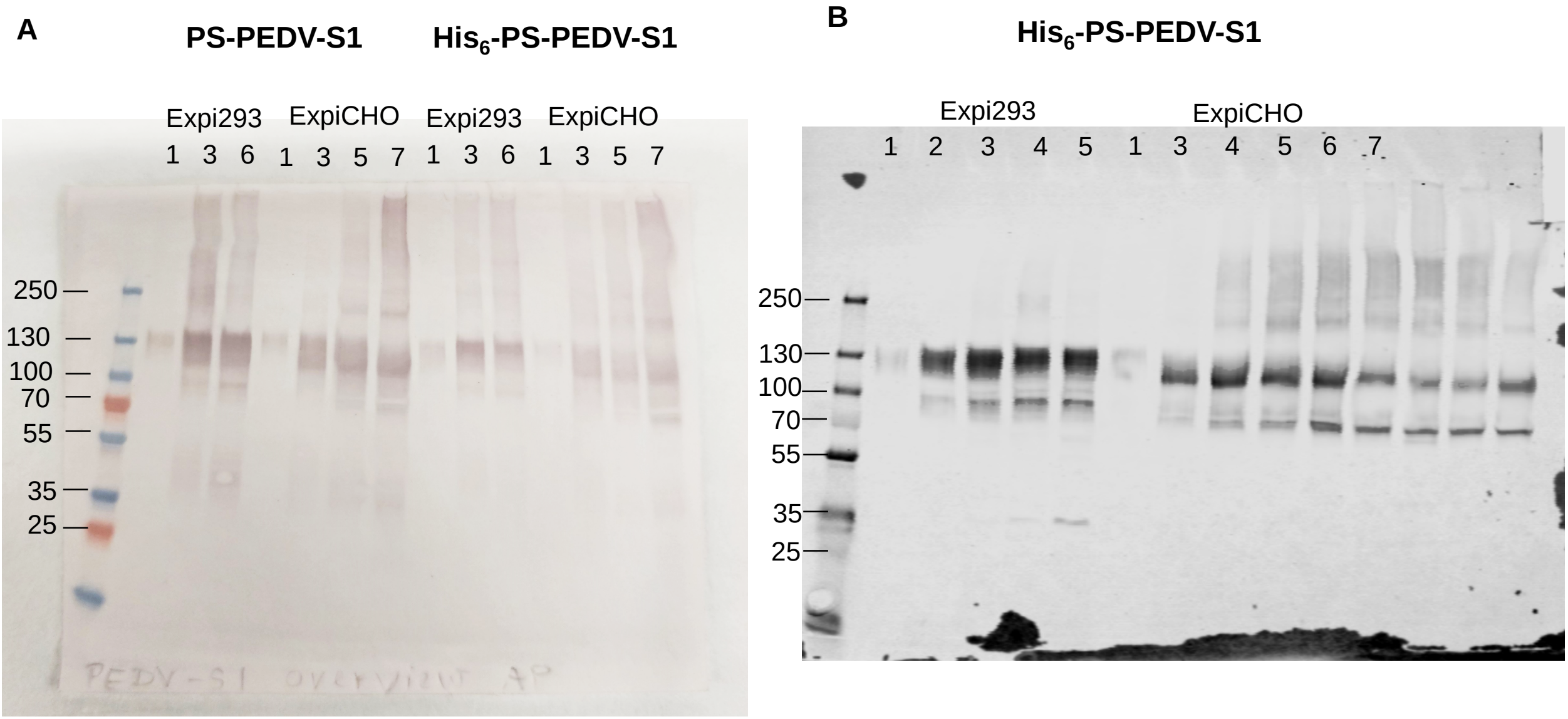
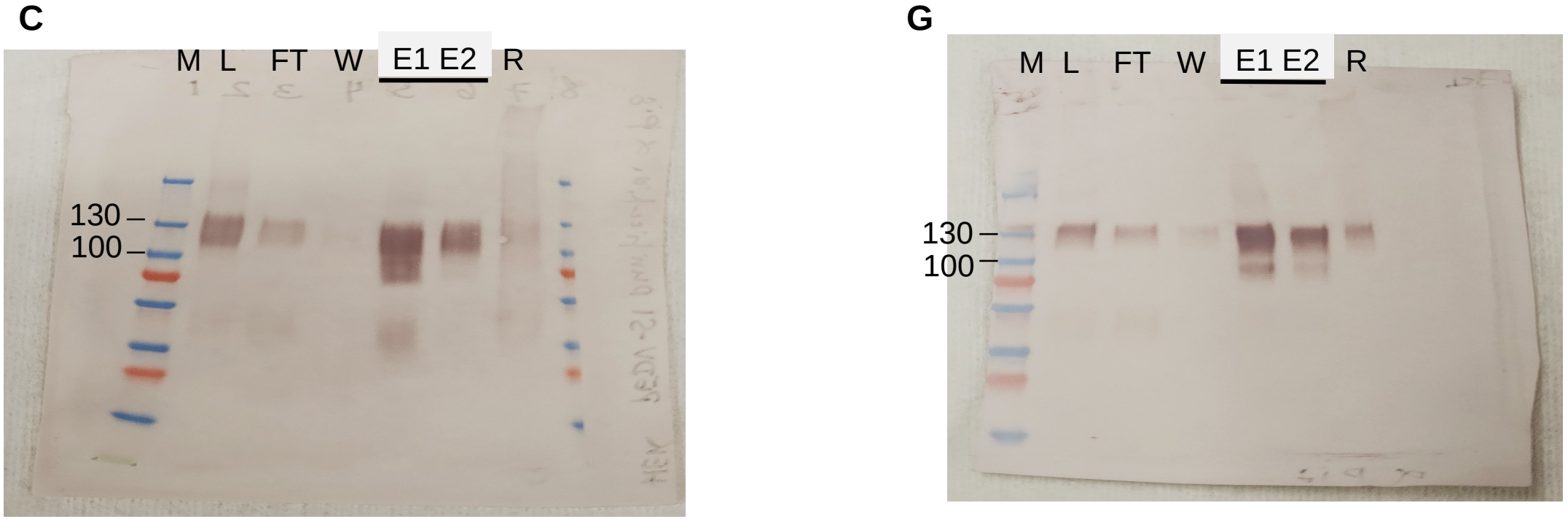
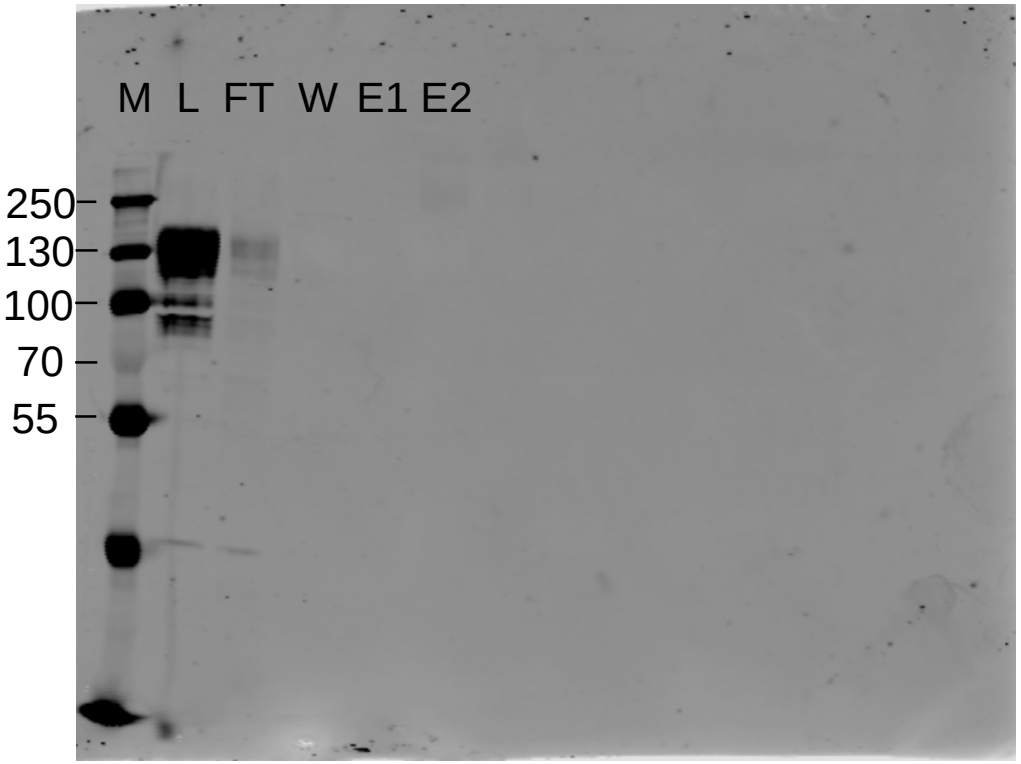


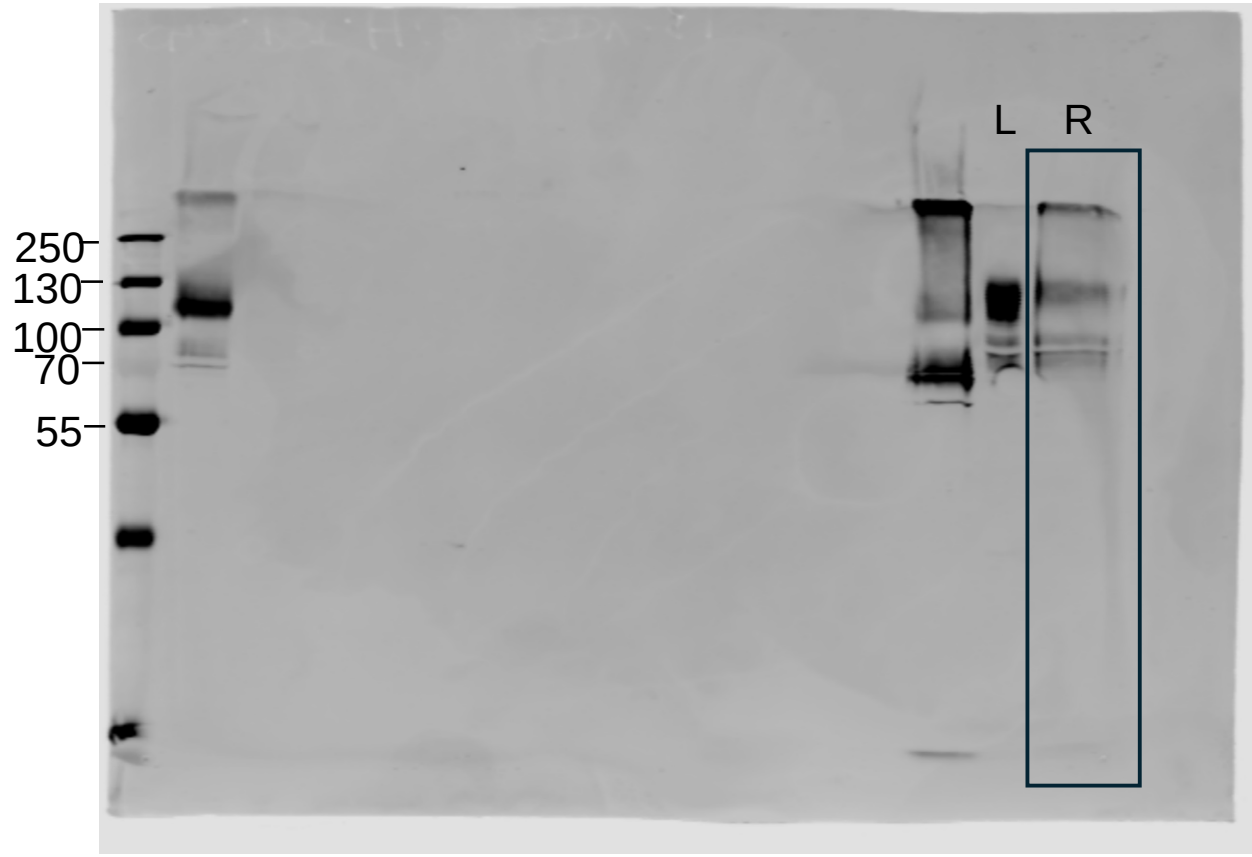
Supplementary Figure 1. Supplementary Information for Figure 2, Panels A and B. The uncropped Western blots of PEDV spike S1 protein expression in Expi293 and ExpiCHO cells with constructs PS-PEDV S1 or His_6-PS-PEDV-S1 corresponding to the cropped images shown in Fig. 2 A and B.



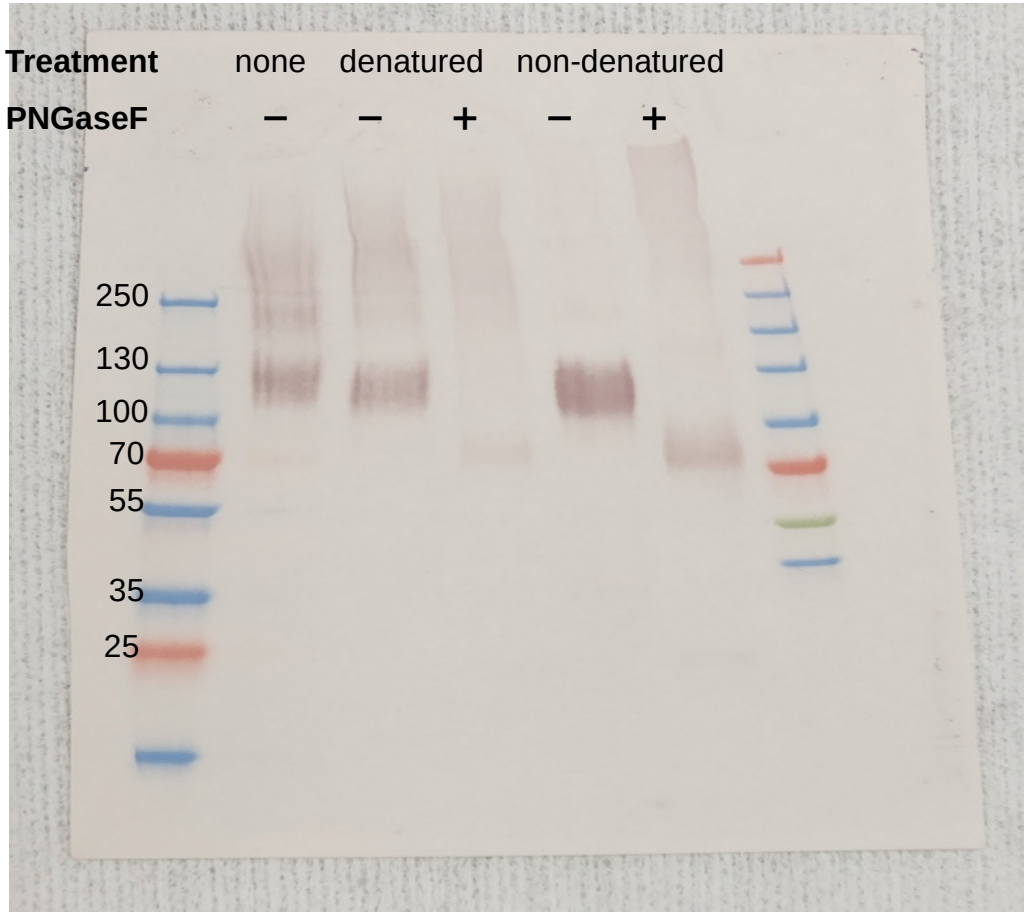
Supplementary Figure 2. Supplementary Information for Figure 3, Panels C and G. The entire Western blots of PEDV-S1 purification steps from Expi293 cells transfected with either PS-PEDV-S1 **(Panel C)** or with His_6-PS-PEDV-S1 **(Panel G)** corresponding to the cropped images shown if Fig. 3 C and G probed with polyclonal anti-PEDV S1 antibody.

F

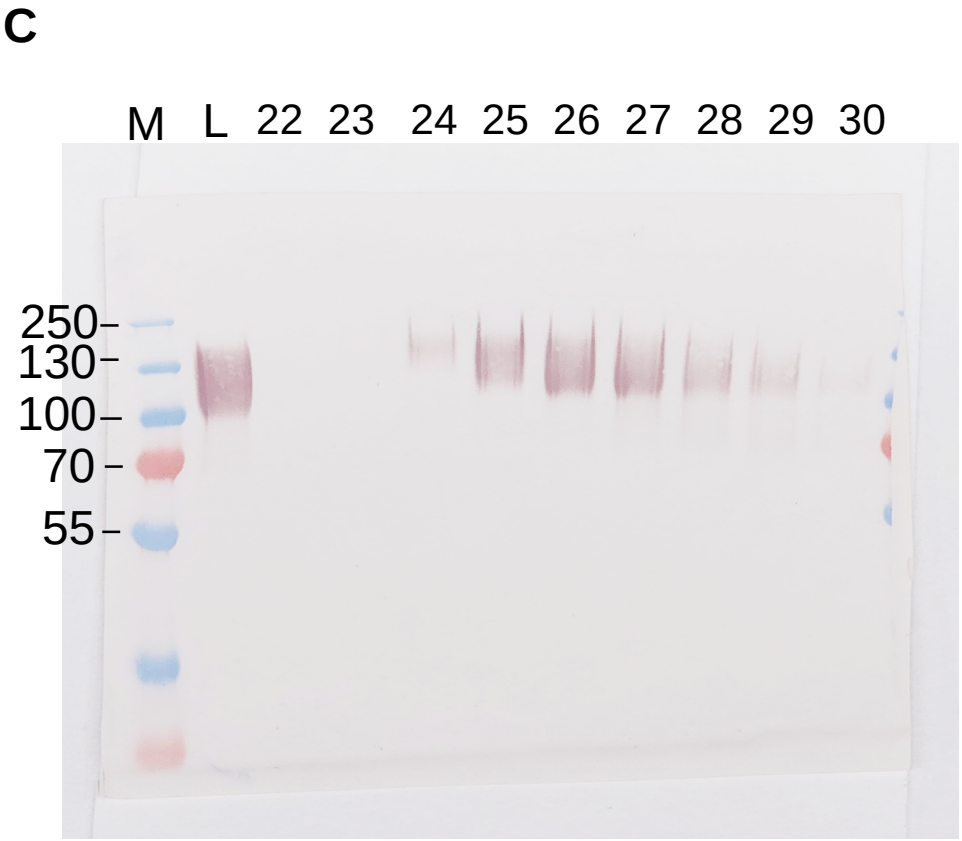




Supplementary Figure 3. Supplementary Information for Figure 3, Panel F. Uncropped anti-His probed Western blot images corresponding to the data shown in Figure 3F. The full membranes are presented with the entire separate Western blot containing lane R (post-elution resin material, boxed) also shown in Fig. 3F and a sample on that separate blot corresponding to lane L (column load). Other lanes of this separate blot are from unrelated samples.

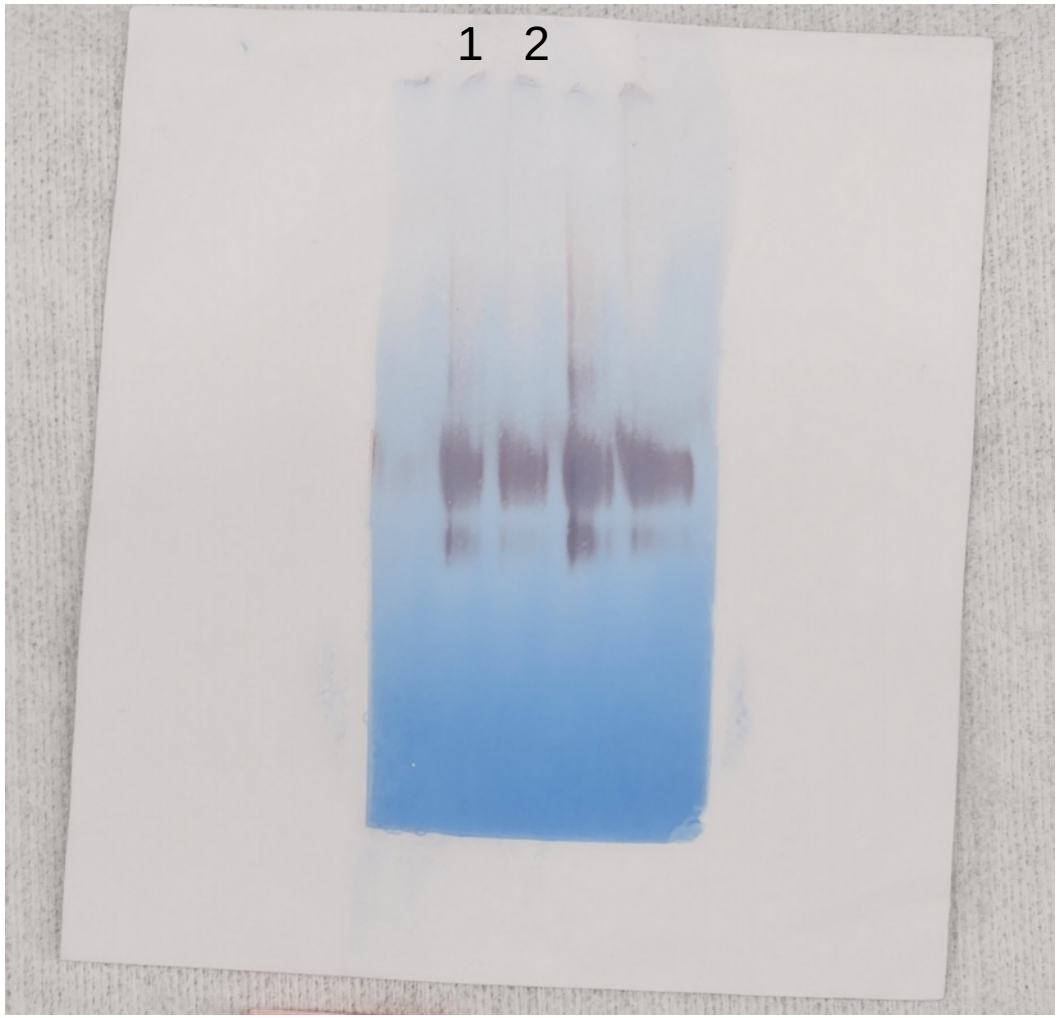


Supplementary Figure 4. Supplementary Information for Figure 4, Panel B. The entire Western blot showing the deglycosylation analysis of purified PEDV S1 protein. The membrane was probed with a polyclonal anti-PEDV S1 antibody.



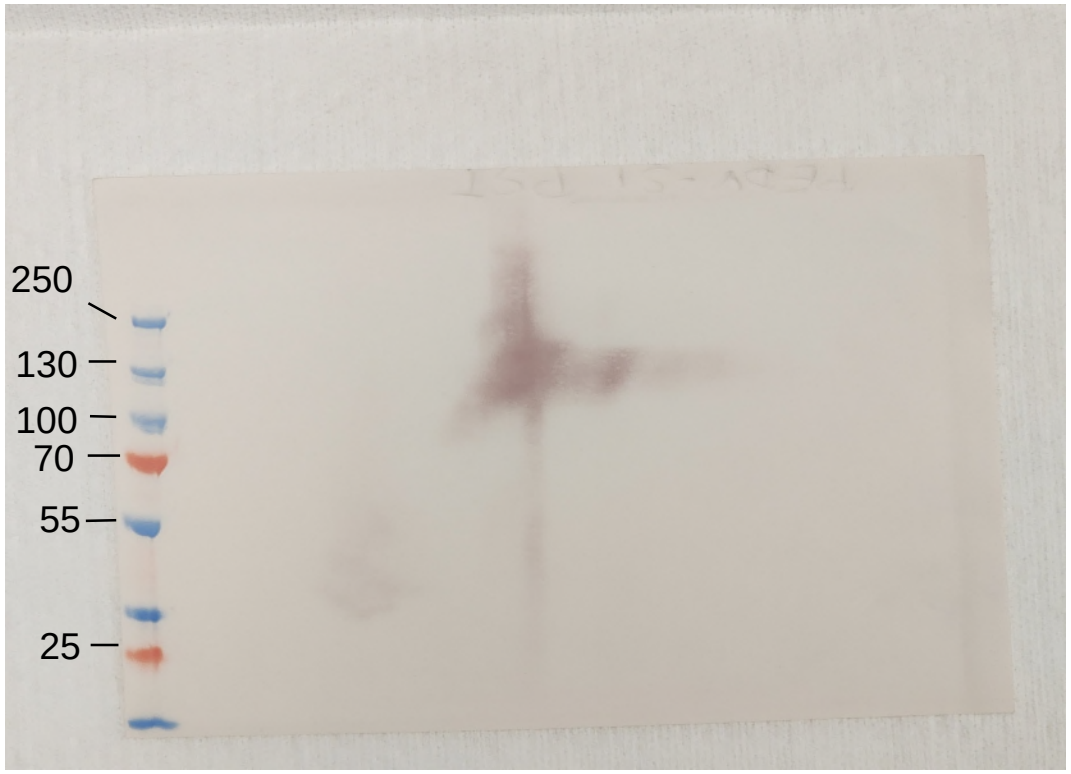
Supplementary Figure 5. Supplementary Information for Figure 6, Panel C. The entire Western blot of Figure 6 C. Assessment of the oligomeric state of purified PEDV S1 protein. Protein-containing fractions by size-exclusion chromatography (SEC).

D



Supplementary Figure 6. Supplementary Information for Figure 8, Panel D. Uncropped full length Western blot the one-dimensional (1D) native-PAGE analysis shown in Fig 8D, assessing the purity of PEDV S1 protein. The relevant lanes corresponding to samples labeled 1 and 2 in Fig. 8D are indicated. The full blot is presented.

C



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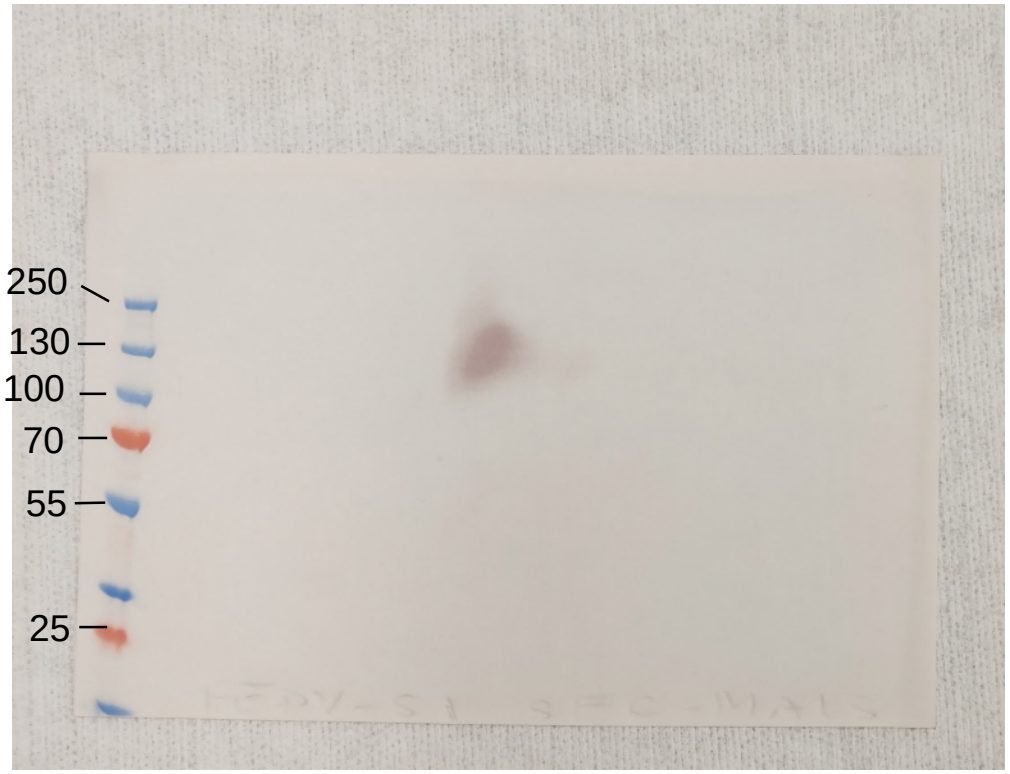
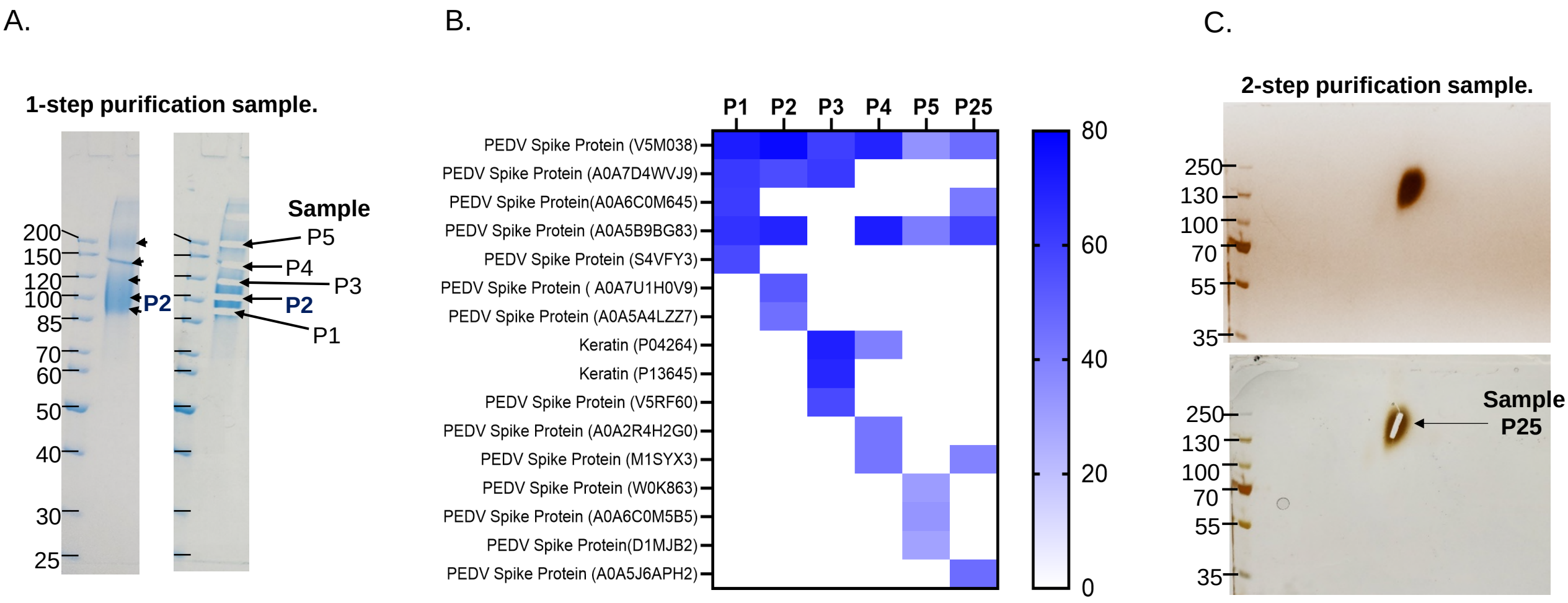


Supplementary Figure 7. Supplementary Information for Figure 9, Panels C and F. The entire Western blot images of the two-dimensional (2D) native-PAGE analysis of PEDV S1 protein shown in Fig 9C and Fig. 9F assessing PEDV S1 protein purified by 1-step or 2-step procedures. The membranes were probed with an anti-PEDV S1 antibody.



Supplementary Figure 8. Protein identity analysis of purified samples. **A**. The high molecular weight band (P5) likely represents protein aggregation caused by boiling the sample prior to SDS-PAGE. This band is absent in samples heated only to 70°C (see also Fig 3B and 3E). **B.** Top fifteen MS matches to the Uniprot database for protein bands P1-P5 and P25 expressed as Peptide-Spectrum Match (PSM) counts, with the accession codes shown in parentheses. **C.** Two-dimensional gel electrophoresis of 2-step purified sample, visualized by silver staining.