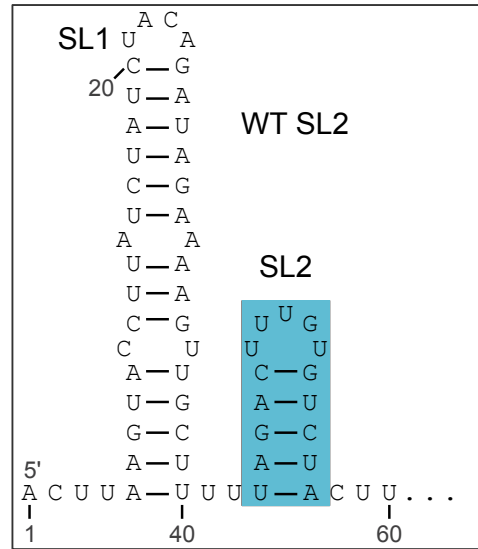
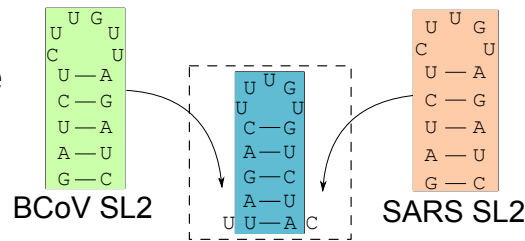


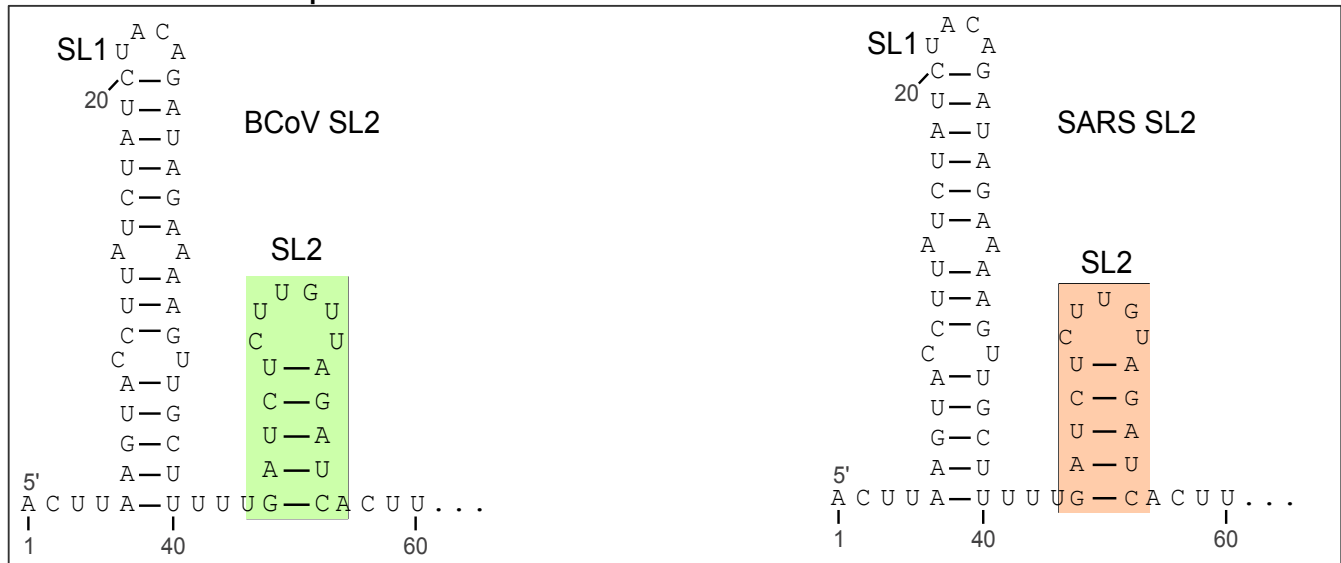
WT Sample



Loop exchange



Pooled SL2 Sample



Supplemental Figure 1 Upper: The first 60 nucleotides of the 5'-UTR of the HCoV-229E are shown with their predicted RNA secondary structure using RNAfold (Lorenz *et al.* 2011). **Middle:** The SL2 region of the wild type (blue box) was exchanged with the BCoV (green box) and SARS-CoV (orange box) counterpart, respectively (Madhugiri *et al.* 2018). **Lower:** The resulting structure after changing the SL2 region.

References

- Lorenz, R., S. H. Bernhart, C. Höner Zu Siederdisen, H. Tafer, C. Flamm, *et al.*, 2011 ViennaRNA package 2.0. Algorithms Mol Biol 6: 26.
- Madhugiri, R., N. Karl, D. Petersen, K. Lamkiewicz, M. Fricke, *et al.*, 2018 Structural and functional conservation of cis-acting RNA elements in coronavirus 5'-terminal genome regions. Virology 517: 44–55.