**Table S8.** SARS-CoV-2 mutations previously associated with non-human animal species in the literature. Insertions and deletions are not considered. For each of the studies, mutations reported in the main text or main tables are included. For the Pickering et al. (2022) study, substitutions found in deer in their study and also appear at least once in the database of previously reported deer sequences (listed in the paper’s supplementary table S2) are included.

|  |  |  |
| --- | --- | --- |
| **Mutation** | **Species** | **Study** |
| **S\_N501T** | **mink** | [**https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf**](https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf) |
| **S\_Y453F** | **mink** | [**https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf**](https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf) |
| **S\_F486L** | **mink** | [**https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf**](https://www.cell.com/cell-reports/pdf/S2211-1247(22)00060-2.pdf) |
| **S\_L452M** | **mink** | [**https://www.nature.com/articles/s41467-021-27096-9**](https://www.nature.com/articles/s41467-021-27096-9) |
| **S\_Y453F** | **mink** | [**https://www.nature.com/articles/s41467-021-27096-9**](https://www.nature.com/articles/s41467-021-27096-9) |
| **S\_F486L** | **mink** | [**https://www.nature.com/articles/s41467-021-27096-9**](https://www.nature.com/articles/s41467-021-27096-9) |
| **S\_N501T** | **mink** | [**https://www.nature.com/articles/s41467-021-27096-9**](https://www.nature.com/articles/s41467-021-27096-9) |
| **NSP2\_T85I** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP2\_T528I** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP3\_S1437F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP4\_H313Y** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP4\_L353F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP4\_S386F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP5\_K90R** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP6\_V149F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP6\_L260F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP8\_L169F** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP12\_P323L** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP13\_V348L** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP14\_T113I** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **S\_T22I** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **S\_H49Y** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **DEL** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **S\_Q613H** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **S\_D614G** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **ORF3a\_Q57H** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **ORF3a\_V256V** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **N\_T391I** | **deer** | [**https://www.nature.com/articles/s41564-022-01268-9#Sec2**](https://www.nature.com/articles/s41564-022-01268-9#Sec2) |
| **NSP9\_G37E** | **mink** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **S\_F486L** | **mink** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **S\_N501T** | **mink** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **S\_Y453F** | **mink** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **ORF3a\_L219V** | **mink** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **NSP3a\_L1035F** | **deer** | [**https://www.nature.com/articles/s41467-022-30698-6**](https://www.nature.com/articles/s41467-022-30698-6) |
| **NSP2\_T170Q** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_A192V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_H208Y** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_R218C** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_A225T** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_E563V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_D135Y** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_V234I** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_P278L** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_H295Y** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_K384N** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_I750V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_M770K** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP3\_D1283G** | **dog** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP5\_I249T** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP5\_I259V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP9\_G37E** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP9\_G37R** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP10\_K124E** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP12\_T25I** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP12\_M195I** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP12\_T802I** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP13\_I258V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP13\_A446D** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP15\_A92T** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_G261D** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_G261D** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_A262S** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_V367F** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_L452M** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_Y453F** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_F486L** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **S\_N501T** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **M\_T175M** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **N\_R41L** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **N\_P80L** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **N\_P199Q** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **N\_T247I** | **cat** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF3a\_H182L** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF3a\_H182Y** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF3a\_L219V** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF3a\_G224C** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF3a\_T229I** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF6\_R20S** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **ORF6\_K23S** | **mink** | [**https://peerj.com/articles/10609/**](https://peerj.com/articles/10609/) |
| **NSP2\_T85I** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP3\_S1206L** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP9\_G37E** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP12\_P323L** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP13\_V187I** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP16\_T91M** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **S\_N501T** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **S\_D614G** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **S\_K113T** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **ORF3a\_H128Y** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **ORF3a\_Q57H** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **M\_A38S** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **N\_T205I** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **N\_Q289H** | **mink** | [**https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001**](https://journals.plos.org/plospathogens/article/figure?id=10.1371/journal.ppat.1009952.t001) |
| **NSP6\_L260F** | **mink** | [**https://insight.jci.org/articles/view/159573**](https://insight.jci.org/articles/view/159573) |
| **ORF1b\_P314L** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **ORF1b\_T730I** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **ORF1b\_T2163I** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **S\_Y453F** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **S\_D614G** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **S\_I692V** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **S\_M1229I** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **ORF3a\_H128Y** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **N\_S194L** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **N\_R203K** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |
| **N\_G204R** | **mink** | [**https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full**](https://www.frontiersin.org/articles/10.3389/fmicb.2021.698944/full) |