Supplementary Materials: Table S1: Data of 596 human SARS-CoV-2 genomes collected from Gwangju, sequenced in this study and submitted to GISAID (Accession ID)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Virus name** | **Accession ID** | **Lineage** | **Label** |
| 1 | hCoV-19/South Korea/GJ-HERI-A0030/2020 | EPI\_ISL\_17696315 | B.41 | 1-1 |
| 2 | hCoV-19/South Korea/GJ-HERI-A0031/2020 | EPI\_ISL\_17696316 | B.41 | 1-2 |
| 3 | hCoV-19/South Korea/GJ-HERI-A0032/2020 | EPI\_ISL\_17696317 | B.1.497 | 2-1 |
| 4 | hCoV-19/South Korea/GJ-HERI-A0033/2020 | EPI\_ISL\_17696318 | B.1.497 | 2-2 |
| 5 | hCoV-19/South Korea/GJ-HERI-A0034/2020 | EPI\_ISL\_17696319 | B.1.497 | 2-3 |
| 6 | hCoV-19/South Korea/GJ-HERI-A0035/2020 | EPI\_ISL\_17696320 | B.1.497 | 2-4 |
| 7 | hCoV-19/South Korea/GJ-HERI-A0036/2020 | EPI\_ISL\_17696321 | B.1.497 | 2-5 |
| 8 | hCoV-19/South Korea/GJ-HERI-A0037/2020 | EPI\_ISL\_17696322 | B.1.497 | 2-6 |
| 9 | hCoV-19/South Korea/GJ-HERI-A0038/2020 | EPI\_ISL\_17696323 | B.1.497 | 2-7 |
| 10 | hCoV-19/South Korea/GJ-HERI-A0039/2020 | EPI\_ISL\_17696324 | B.1.497 | 2-8 |
| 11 | hCoV-19/South Korea/GJ-HERI-A0040/2020 | EPI\_ISL\_17696325 | B.1.497 | 2-9 |
| 12 | hCoV-19/South Korea/GJ-HERI-A0041/2020 | EPI\_ISL\_17696326 | B.1.497 | 2-10 |
| 13 | hCoV-19/South Korea/GJ-HERI-A0042/2020 | EPI\_ISL\_17696327 | B.1.497 | 2-11 |
| 14 | hCoV-19/South Korea/GJ-HERI-A0052/2020 | EPI\_ISL\_17696337 | B.1.497 | 2-12 |
| 15 | hCoV-19/South Korea/GJ-HERI-A0053/2020 | EPI\_ISL\_17696338 | B.1.497 | 2-13 |
| 16 | hCoV-19/South Korea/GJ-HERI-A0054/2020 | EPI\_ISL\_17696339 | B.1.497 | 2-14 |
| 17 | hCoV-19/South Korea/GJ-HERI-A0055/2020 | EPI\_ISL\_17696340 | B.1.497 | 2-15 |
| 18 | hCoV-19/South Korea/GJ-HERI-A0056/2020 | EPI\_ISL\_17696341 | B.1.497 | 2-16 |
| 19 | hCoV-19/South Korea/GJ-HERI-A0057/2020 | EPI\_ISL\_17696342 | B.1.497 | 2-17 |
| 20 | hCoV-19/South Korea/GJ-HERI-A0058/2020 | EPI\_ISL\_17696343 | B.1.497 | 2-18 |
| 21 | hCoV-19/South Korea/GJ-HERI-A0059/2020 | EPI\_ISL\_17696344 | B.1.497 | 2-19 |
| 22 | hCoV-19/South Korea/GJ-HERI-A0060/2020 | EPI\_ISL\_17696345 | B.1.497 | 2-20 |
| 23 | hCoV-19/South Korea/GJ-HERI-A0061/2020 | EPI\_ISL\_17696346 | B.1.497 | 2-21 |
| 24 | hCoV-19/South Korea/GJ-HERI-A0062/2020 | EPI\_ISL\_17696347 | B.1.497 | 2-22 |
| 25 | hCoV-19/South Korea/GJ-HERI-A0063/2020 | EPI\_ISL\_17696348 | B.1.497 | 2-23 |
| 26 | hCoV-19/South Korea/GJ-HERI-A0064/2020 | EPI\_ISL\_17696349 | B.1.497 | 2-24 |
| 27 | hCoV-19/South Korea/GJ-HERI-A0065/2020 | EPI\_ISL\_17696350 | B.1.497 | 2-25 |
| 28 | hCoV-19/South Korea/GJ-HERI-A0066/2020 | EPI\_ISL\_17696351 | B.1.497 | 2-26 |
| 29 | hCoV-19/South Korea/GJ-HERI-A0067/2020 | EPI\_ISL\_17696352 | B.1.497 | 2-27 |
| 30 | hCoV-19/South Korea/GJ-HERI-A0068/2020 | EPI\_ISL\_17696353 | B.1.497 | 2-28 |
| 31 | hCoV-19/South Korea/GJ-HERI-A0069/2020 | EPI\_ISL\_17696354 | B.1.497 | 2-29 |
| 32 | hCoV-19/South Korea/GJ-HERI-A0070/2020 | EPI\_ISL\_17696355 | B.1.497 | 2-30 |
| 33 | hCoV-19/South Korea/GJ-HERI-A0023/2021 | EPI\_ISL\_17696308 | B.1.1.7 | 3-1 |
| 34 | hCoV-19/South Korea/GJ-HERI-A0024/2021 | EPI\_ISL\_17696309 | B.1.1.7 | 3-2 |
| 35 | hCoV-19/South Korea/GJ-HERI-A0025/2021 | EPI\_ISL\_17696310 | B.1.1.7 | 3-3 |
| 36 | hCoV-19/South Korea/GJ-HERI-A0026/2021 | EPI\_ISL\_17696311 | B.1.1.7 | 3-4 |
| 37 | hCoV-19/South Korea/GJ-HERI-A0027/2021 | EPI\_ISL\_17696312 | B.1.1.7 | 3-5 |
| 38 | hCoV-19/South Korea/GJ-HERI-A0029/2021 | EPI\_ISL\_17696314 | B.1.1.7 | 3-6 |
| 39 | hCoV-19/South Korea/GJ-HERI-A0008/2021 | EPI\_ISL\_17696294 | B.1.351 | 4-1 |
| 40 | hCoV-19/South Korea/GJ-HERI-A0028/2021 | EPI\_ISL\_17696313 | B.1.351 | 4-2 |
| 41 | hCoV-19/South Korea/GJ-HERI-A0119/2021 | EPI\_ISL\_17701835 | B.1.619.1 | 5-1 |
| 42 | hCoV-19/South Korea/GJ-HERI-A0121/2021 | EPI\_ISL\_17701836 | B.1.619.1 | 5-2 |
| 43 | hCoV-19/South Korea/GJ-HERI-A0122/2021 | EPI\_ISL\_17701837 | B.1.619.1 | 5-3 |
| 44 | hCoV-19/South Korea/GJ-HERI-A0124/2021 | EPI\_ISL\_17701839 | B.1.619.1 | 5-4 |
| 45 | hCoV-19/South Korea/GJ-HERI-A0129/2021 | EPI\_ISL\_17701844 | B.1.619.1 | 5-5 |
| 46 | hCoV-19/South Korea/GJ-HERI-A0130/2021 | EPI\_ISL\_17701845 | B.1.619.1 | 5-6 |
| 47 | hCoV-19/South Korea/GJ-HERI-A0131/2021 | EPI\_ISL\_17701846 | B.1.619.1 | 5-7 |
| 48 | hCoV-19/South Korea/GJ-HERI-A0132/2021 | EPI\_ISL\_17701847 | B.1.619.1 | 5-8 |
| 49 | hCoV-19/South Korea/GJ-HERI-A0133/2021 | EPI\_ISL\_17701848 | B.1.619.1 | 5-9 |
| 50 | hCoV-19/South Korea/GJ-HERI-A0134/2021 | EPI\_ISL\_17701849 | B.1.619.1 | 5-10 |
| 51 | hCoV-19/South Korea/GJ-HERI-A0135/2021 | EPI\_ISL\_17701850 | B.1.619.1 | 5-11 |
| 52 | hCoV-19/South Korea/GJ-HERI-A0136/2021 | EPI\_ISL\_17701851 | B.1.619.1 | 5-12 |
| 53 | hCoV-19/South Korea/GJ-HERI-A0137/2021 | EPI\_ISL\_17701852 | B.1.619.1 | 5-13 |
| 54 | hCoV-19/South Korea/GJ-HERI-A0138/2021 | EPI\_ISL\_17701853 | B.1.619.1 | 5-14 |
| 55 | hCoV-19/South Korea/GJ-HERI-A0139/2021 | EPI\_ISL\_17701854 | B.1.619.1 | 5-15 |
| 56 | hCoV-19/South Korea/GJ-HERI-A0140/2021 | EPI\_ISL\_17701855 | B.1.619.1 | 5-16 |
| 57 | hCoV-19/South Korea/GJ-HERI-A0141/2021 | EPI\_ISL\_17701856 | B.1.619.1 | 5-17 |
| 58 | hCoV-19/South Korea/GJ-HERI-A0142/2021 | EPI\_ISL\_17701857 | B.1.619.1 | 5-18 |
| 59 | hCoV-19/South Korea/GJ-HERI-A0144/2021 | EPI\_ISL\_17701859 | B.1.619.1 | 5-19 |
| 60 | hCoV-19/South Korea/GJ-HERI-A0145/2021 | EPI\_ISL\_17701860 | B.1.619.1 | 5-20 |
| 61 | hCoV-19/South Korea/GJ-HERI-A0146/2021 | EPI\_ISL\_17701861 | B.1.619.1 | 5-21 |
| 62 | hCoV-19/South Korea/GJ-HERI-A0148/2021 | EPI\_ISL\_17701863 | B.1.619.1 | 5-22 |
| 63 | hCoV-19/South Korea/GJ-HERI-A0149/2021 | EPI\_ISL\_17701864 | B.1.619.1 | 5-23 |
| 64 | hCoV-19/South Korea/GJ-HERI-A0150/2021 | EPI\_ISL\_17701865 | B.1.619.1 | 5-24 |
| 65 | hCoV-19/South Korea/GJ-HERI-A0153/2021 | EPI\_ISL\_17701868 | B.1.619.1 | 5-25 |
| 66 | hCoV-19/South Korea/GJ-HERI-A0154/2021 | EPI\_ISL\_17701869 | B.1.619.1 | 5-26 |
| 67 | hCoV-19/South Korea/GJ-HERI-A0156/2021 | EPI\_ISL\_17701870 | B.1.619.1 | 5-27 |
| 68 | hCoV-19/South Korea/GJ-HERI-A0158/2021 | EPI\_ISL\_17701872 | B.1.619.1 | 5-28 |
| 69 | hCoV-19/South Korea/GJ-HERI-A0160/2021 | EPI\_ISL\_17701874 | B.1.619.1 | 5-29 |
| 70 | hCoV-19/South Korea/GJ-HERI-A0161/2021 | EPI\_ISL\_17701875 | B.1.619.1 | 5-30 |
| 71 | hCoV-19/South Korea/GJ-HERI-A0162/2021 | EPI\_ISL\_17701876 | B.1.619.1 | 5-31 |
| 72 | hCoV-19/South Korea/GJ-HERI-A0163/2021 | EPI\_ISL\_17701877 | B.1.619.1 | 5-32 |
| 73 | hCoV-19/South Korea/GJ-HERI-A0164/2021 | EPI\_ISL\_17701878 | B.1.619.1 | 5-33 |
| 74 | hCoV-19/South Korea/GJ-HERI-A0165/2021 | EPI\_ISL\_17701879 | B.1.619.1 | 5-34 |
| 75 | hCoV-19/South Korea/GJ-HERI-A0167/2021 | EPI\_ISL\_17701881 | B.1.619.1 | 5-35 |
| 76 | hCoV-19/South Korea/GJ-HERI-A0168/2021 | EPI\_ISL\_17701882 | B.1.619.1 | 5-36 |
| 77 | hCoV-19/South Korea/GJ-HERI-A0170/2021 | EPI\_ISL\_17701884 | B.1.619.1 | 5-37 |
| 78 | hCoV-19/South Korea/GJ-HERI-A0176/2021 | EPI\_ISL\_17701890 | B.1.619.1 | 5-38 |
| 79 | hCoV-19/South Korea/GJ-HERI-A0178/2021 | EPI\_ISL\_17701892 | B.1.619.1 | 5-39 |
| 80 | hCoV-19/South Korea/GJ-HERI-A0179/2021 | EPI\_ISL\_17701893 | B.1.619.1 | 5-40 |
| 81 | hCoV-19/South Korea/GJ-HERI-A0180/2021 | EPI\_ISL\_17701894 | B.1.619.1 | 5-41 |
| 82 | hCoV-19/South Korea/GJ-HERI-A0183/2021 | EPI\_ISL\_17701897 | B.1.619.1 | 5-42 |
| 83 | hCoV-19/South Korea/GJ-HERI-A0184/2021 | EPI\_ISL\_17701898 | B.1.619.1 | 5-43 |
| 84 | hCoV-19/South Korea/GJ-HERI-A0186/2021 | EPI\_ISL\_17701900 | B.1.619.1 | 5-44 |
| 85 | hCoV-19/South Korea/GJ-HERI-A0187/2021 | EPI\_ISL\_17701901 | B.1.619.1 | 5-45 |
| 86 | hCoV-19/South Korea/GJ-HERI-A0188/2021 | EPI\_ISL\_17701902 | B.1.619.1 | 5-46 |
| 87 | hCoV-19/South Korea/GJ-HERI-A0190/2021 | EPI\_ISL\_17701904 | B.1.619.1 | 5-47 |
| 88 | hCoV-19/South Korea/GJ-HERI-A0191/2021 | EPI\_ISL\_17701905 | B.1.619.1 | 5-48 |
| 89 | hCoV-19/South Korea/GJ-HERI-A0192/2021 | EPI\_ISL\_17701906 | B.1.619.1 | 5-49 |
| 90 | hCoV-19/South Korea/GJ-HERI-A0193/2021 | EPI\_ISL\_17701907 | B.1.619.1 | 5-50 |
| 91 | hCoV-19/South Korea/GJ-HERI-A0194/2021 | EPI\_ISL\_17701908 | B.1.619.1 | 5-51 |
| 92 | hCoV-19/South Korea/GJ-HERI-A0195/2021 | EPI\_ISL\_17701909 | B.1.619.1 | 5-52 |
| 93 | hCoV-19/South Korea/GJ-HERI-A0196/2021 | EPI\_ISL\_17701910 | B.1.619.1 | 5-53 |
| 94 | hCoV-19/South Korea/GJ-HERI-A0197/2021 | EPI\_ISL\_17701911 | B.1.619.1 | 5-54 |
| 95 | hCoV-19/South Korea/GJ-HERI-A0198/2021 | EPI\_ISL\_17701912 | B.1.619.1 | 5-55 |
| 96 | hCoV-19/South Korea/GJ-HERI-A0199/2021 | EPI\_ISL\_17701913 | B.1.619.1 | 5-56 |
| 97 | hCoV-19/South Korea/GJ-HERI-A0200/2021 | EPI\_ISL\_17701914 | B.1.619.1 | 5-57 |
| 98 | hCoV-19/South Korea/GJ-HERI-A0201/2021 | EPI\_ISL\_17701915 | B.1.619.1 | 5-58 |
| 99 | hCoV-19/South Korea/GJ-HERI-A0202/2021 | EPI\_ISL\_17701916 | B.1.619.1 | 5-59 |
| 100 | hCoV-19/South Korea/GJ-HERI-A0203/2021 | EPI\_ISL\_17701917 | B.1.619.1 | 5-60 |
| 101 | hCoV-19/South Korea/GJ-HERI-A0204/2021 | EPI\_ISL\_17701918 | B.1.619.1 | 5-61 |
| 102 | hCoV-19/South Korea/GJ-HERI-A0205/2021 | EPI\_ISL\_17701919 | B.1.619.1 | 5-62 |
| 103 | hCoV-19/South Korea/GJ-HERI-A0206/2021 | EPI\_ISL\_17701920 | B.1.619.1 | 5-63 |
| 104 | hCoV-19/South Korea/GJ-HERI-A0207/2021 | EPI\_ISL\_17701921 | B.1.619.1 | 5-64 |
| 105 | hCoV-19/South Korea/GJ-HERI-A0208/2021 | EPI\_ISL\_17701922 | B.1.619.1 | 5-65 |
| 106 | hCoV-19/South Korea/GJ-HERI-A0209/2021 | EPI\_ISL\_17701923 | B.1.619.1 | 5-66 |
| 107 | hCoV-19/South Korea/GJ-HERI-A0210/2021 | EPI\_ISL\_17701924 | B.1.619.1 | 5-67 |
| 108 | hCoV-19/South Korea/GJ-HERI-A0211/2021 | EPI\_ISL\_17701925 | B.1.619.1 | 5-68 |
| 109 | hCoV-19/South Korea/GJ-HERI-A0212/2021 | EPI\_ISL\_17701926 | B.1.619.1 | 5-69 |
| 110 | hCoV-19/South Korea/GJ-HERI-A0213/2021 | EPI\_ISL\_17701927 | B.1.619.1 | 5-70 |
| 111 | hCoV-19/South Korea/GJ-HERI-A0214/2021 | EPI\_ISL\_17701928 | B.1.619.1 | 5-71 |
| 112 | hCoV-19/South Korea/GJ-HERI-A0215/2021 | EPI\_ISL\_17701929 | B.1.619.1 | 5-72 |
| 113 | hCoV-19/South Korea/GJ-HERI-A0216/2021 | EPI\_ISL\_17701930 | B.1.619.1 | 5-73 |
| 114 | hCoV-19/South Korea/GJ-HERI-A0218/2021 | EPI\_ISL\_17701932 | B.1.619.1 | 5-74 |
| 115 | hCoV-19/South Korea/GJ-HERI-A0219/2021 | EPI\_ISL\_17701933 | B.1.619.1 | 5-75 |
| 116 | hCoV-19/South Korea/GJ-HERI-A0220/2021 | EPI\_ISL\_17701934 | B.1.619.1 | 5-76 |
| 117 | hCoV-19/South Korea/GJ-HERI-A0221/2021 | EPI\_ISL\_17701935 | B.1.619.1 | 5-77 |
| 118 | hCoV-19/South Korea/GJ-HERI-A0222/2021 | EPI\_ISL\_17701936 | B.1.619.1 | 5-78 |
| 119 | hCoV-19/South Korea/GJ-HERI-A0223/2021 | EPI\_ISL\_17701937 | B.1.619.1 | 5-79 |
| 120 | hCoV-19/South Korea/GJ-HERI-A0224/2021 | EPI\_ISL\_17701938 | B.1.619.1 | 5-80 |
| 121 | hCoV-19/South Korea/GJ-HERI-A0225/2021 | EPI\_ISL\_17701939 | B.1.619.1 | 5-81 |
| 122 | hCoV-19/South Korea/GJ-HERI-A0226/2021 | EPI\_ISL\_17701940 | B.1.619.1 | 5-82 |
| 123 | hCoV-19/South Korea/GJ-HERI-A0228/2021 | EPI\_ISL\_17701942 | B.1.619.1 | 5-83 |
| 124 | hCoV-19/South Korea/GJ-HERI-A0229/2021 | EPI\_ISL\_17701943 | B.1.619.1 | 5-84 |
| 125 | hCoV-19/South Korea/GJ-HERI-A0230/2021 | EPI\_ISL\_17701944 | B.1.619.1 | 5-85 |
| 126 | hCoV-19/South Korea/GJ-HERI-A0231/2021 | EPI\_ISL\_17701945 | B.1.619.1 | 5-86 |
| 127 | hCoV-19/South Korea/GJ-HERI-A0238/2021 | EPI\_ISL\_17702288 | B.1.617.2 | 6-1 |
| 128 | hCoV-19/South Korea/GJ-HERI-A0239/2021 | EPI\_ISL\_17702289 | B.1.617.2 | 6-2 |
| 129 | hCoV-19/South Korea/GJ-HERI-A0245/2021 | EPI\_ISL\_17702295 | AY.122 | 6-3 |
| 130 | hCoV-19/South Korea/GJ-HERI-A0246/2021 | EPI\_ISL\_17702296 | AY.69 | 6-4 |
| 131 | hCoV-19/South Korea/GJ-HERI-A0247/2021 | EPI\_ISL\_17702297 | AY.69 | 6-5 |
| 132 | hCoV-19/South Korea/GJ-HERI-A0248/2021 | EPI\_ISL\_17702298 | AY.69 | 6-6 |
| 133 | hCoV-19/South Korea/GJ-HERI-A0249/2021 | EPI\_ISL\_17702299 | AY.69 | 6-7 |
| 134 | hCoV-19/South Korea/GJ-HERI-A0250/2021 | EPI\_ISL\_17702300 | AY.69 | 6-8 |
| 135 | hCoV-19/South Korea/GJ-HERI-A0252/2021 | EPI\_ISL\_17702302 | AY.69 | 6-9 |
| 136 | hCoV-19/South Korea/GJ-HERI-A0253/2021 | EPI\_ISL\_17702303 | AY.69 | 6-10 |
| 137 | hCoV-19/South Korea/GJ-HERI-A0254/2021 | EPI\_ISL\_17702304 | AY.69 | 6-11 |
| 138 | hCoV-19/South Korea/GJ-HERI-A0255/2021 | EPI\_ISL\_17702305 | AY.69 | 6-12 |
| 139 | hCoV-19/South Korea/GJ-HERI-A0256/2021 | EPI\_ISL\_17719138 | AY.69 | 6-13 |
| 140 | hCoV-19/South Korea/GJ-HERI-A0257/2021 | EPI\_ISL\_17702306 | AY.69 | 6-14 |
| 141 | hCoV-19/South Korea/GJ-HERI-A0258/2021 | EPI\_ISL\_17702307 | AY.69 | 6-15 |
| 142 | hCoV-19/South Korea/GJ-HERI-A0259/2021 | EPI\_ISL\_17702308 | AY.69 | 6-16 |
| 143 | hCoV-19/South Korea/GJ-HERI-A0260/2021 | EPI\_ISL\_17702309 | AY.69 | 6-17 |
| 144 | hCoV-19/South Korea/GJ-HERI-A0262/2021 | EPI\_ISL\_17702311 | AY.69 | 6-18 |
| 145 | hCoV-19/South Korea/GJ-HERI-A0263/2021 | EPI\_ISL\_17719139 | AY.69 | 6-19 |
| 146 | hCoV-19/South Korea/GJ-HERI-A0264/2021 | EPI\_ISL\_17702312 | AY.69 | 6-20 |
| 147 | hCoV-19/South Korea/GJ-HERI-A0265/2021 | EPI\_ISL\_17702313 | AY.69 | 6-21 |
| 148 | hCoV-19/South Korea/GJ-HERI-A0266/2021 | EPI\_ISL\_17702314 | AY.69 | 6-22 |
| 149 | hCoV-19/South Korea/GJ-HERI-A0267/2021 | EPI\_ISL\_17702315 | AY.69 | 6-23 |
| 150 | hCoV-19/South Korea/GJ-HERI-A0268/2021 | EPI\_ISL\_17702316 | B.1.617.2 | 6-24 |
| 151 | hCoV-19/South Korea/GJ-HERI-A0269/2021 | EPI\_ISL\_17702317 | AY.69 | 6-25 |
| 152 | hCoV-19/South Korea/GJ-HERI-A0270/2021 | EPI\_ISL\_17702318 | AY.69 | 6-26 |
| 153 | hCoV-19/South Korea/GJ-HERI-A0273/2021 | EPI\_ISL\_17702321 | AY.69 | 6-27 |
| 154 | hCoV-19/South Korea/GJ-HERI-A0274/2021 | EPI\_ISL\_17702322 | AY.69 | 6-28 |
| 155 | hCoV-19/South Korea/GJ-HERI-A0275/2021 | EPI\_ISL\_17702323 | AY.122 | 6-29 |
| 156 | hCoV-19/South Korea/GJ-HERI-A0276/2021 | EPI\_ISL\_17702324 | AY.69 | 6-30 |
| 157 | hCoV-19/South Korea/GJ-HERI-A0277/2021 | EPI\_ISL\_17702325 | AY.69 | 6-31 |
| 158 | hCoV-19/South Korea/GJ-HERI-A0278/2021 | EPI\_ISL\_17702326 | AY.69 | 6-32 |
| 159 | hCoV-19/South Korea/GJ-HERI-A0279/2021 | EPI\_ISL\_17702327 | AY.69 | 6-33 |
| 160 | hCoV-19/South Korea/GJ-HERI-A0280/2021 | EPI\_ISL\_17702328 | AY.69 | 6-34 |
| 161 | hCoV-19/South Korea/GJ-HERI-A0281/2021 | EPI\_ISL\_17702329 | AY.69 | 6-35 |
| 162 | hCoV-19/South Korea/GJ-HERI-A0282/2021 | EPI\_ISL\_17702330 | AY.69 | 6-36 |
| 163 | hCoV-19/South Korea/GJ-HERI-A0283/2021 | EPI\_ISL\_17702331 | B.1.617.2 | 6-37 |
| 164 | hCoV-19/South Korea/GJ-HERI-A0284/2021 | EPI\_ISL\_17702332 | AY.69 | 6-38 |
| 165 | hCoV-19/South Korea/GJ-HERI-A0286/2021 | EPI\_ISL\_17702334 | AY.69 | 6-39 |
| 166 | hCoV-19/South Korea/GJ-HERI-A0287/2021 | EPI\_ISL\_17702335 | AY.69 | 6-40 |
| 167 | hCoV-19/South Korea/GJ-HERI-A0288/2021 | EPI\_ISL\_17702336 | AY.69 | 6-41 |
| 168 | hCoV-19/South Korea/GJ-HERI-A0289/2021 | EPI\_ISL\_17702337 | AY.69 | 6-42 |
| 169 | hCoV-19/South Korea/GJ-HERI-A0293/2021 | EPI\_ISL\_17702341 | B.1.617.2 | 6-43 |
| 170 | hCoV-19/South Korea/GJ-HERI-A0294/2021 | EPI\_ISL\_17702342 | B.1.617.2 | 6-44 |
| 171 | hCoV-19/South Korea/GJ-HERI-A0295/2021 | EPI\_ISL\_17702343 | B.1.617.2 | 6-45 |
| 172 | hCoV-19/South Korea/GJ-HERI-A0296/2021 | EPI\_ISL\_17702344 | AY.69 | 6-46 |
| 173 | hCoV-19/South Korea/GJ-HERI-A0297/2021 | EPI\_ISL\_17702345 | AY.122 | 6-47 |
| 174 | hCoV-19/South Korea/GJ-HERI-A0298/2021 | EPI\_ISL\_17702346 | AY.122 | 6-48 |
| 175 | hCoV-19/South Korea/GJ-HERI-A0299/2021 | EPI\_ISL\_17702347 | AY.69 | 6-49 |
| 176 | hCoV-19/South Korea/GJ-HERI-A0300/2021 | EPI\_ISL\_17702348 | AY.122 | 6-50 |
| 177 | hCoV-19/South Korea/GJ-HERI-A0301/2021 | EPI\_ISL\_17702349 | AY.122 | 6-51 |
| 178 | hCoV-19/South Korea/GJ-HERI-A0302/2021 | EPI\_ISL\_17702350 | AY.122 | 6-52 |
| 179 | hCoV-19/South Korea/GJ-HERI-A0303/2021 | EPI\_ISL\_17702351 | AY.122 | 6-53 |
| 180 | hCoV-19/South Korea/GJ-HERI-A0304/2021 | EPI\_ISL\_17702352 | AY.122 | 6-54 |
| 181 | hCoV-19/South Korea/GJ-HERI-A0305/2021 | EPI\_ISL\_17702353 | AY.69 | 6-55 |
| 182 | hCoV-19/South Korea/GJ-HERI-A0306/2021 | EPI\_ISL\_17702354 | AY.69 | 6-56 |
| 183 | hCoV-19/South Korea/GJ-HERI-A0307/2021 | EPI\_ISL\_17702355 | AY.69 | 6-57 |
| 184 | hCoV-19/South Korea/GJ-HERI-A0308/2021 | EPI\_ISL\_17702356 | AY.69 | 6-58 |
| 185 | hCoV-19/South Korea/GJ-HERI-A0309/2021 | EPI\_ISL\_17702357 | AY.122 | 6-59 |
| 186 | hCoV-19/South Korea/GJ-HERI-A0310/2021 | EPI\_ISL\_17702358 | AY.122 | 6-60 |
| 187 | hCoV-19/South Korea/GJ-HERI-A0311/2021 | EPI\_ISL\_17702359 | AY.69 | 6-61 |
| 188 | hCoV-19/South Korea/GJ-HERI-A0312/2021 | EPI\_ISL\_17702360 | AY.69 | 6-62 |
| 189 | hCoV-19/South Korea/GJ-HERI-A0313/2021 | EPI\_ISL\_17702361 | AY.69 | 6-63 |
| 190 | hCoV-19/South Korea/GJ-HERI-A0314/2021 | EPI\_ISL\_17702362 | AY.69 | 6-64 |
| 191 | hCoV-19/South Korea/GJ-HERI-A0315/2021 | EPI\_ISL\_17702363 | AY.69 | 6-65 |
| 192 | hCoV-19/South Korea/GJ-HERI-A0316/2021 | EPI\_ISL\_17702364 | AY.69 | 6-66 |
| 193 | hCoV-19/South Korea/GJ-HERI-A0317/2021 | EPI\_ISL\_17702365 | AY.69 | 6-67 |
| 194 | hCoV-19/South Korea/GJ-HERI-A0318/2021 | EPI\_ISL\_17702366 | AY.69 | 6-68 |
| 195 | hCoV-19/South Korea/GJ-HERI-A0319/2021 | EPI\_ISL\_17702367 | AY.122 | 6-69 |
| 196 | hCoV-19/South Korea/GJ-HERI-A0320/2021 | EPI\_ISL\_17702368 | AY.69 | 6-70 |
| 197 | hCoV-19/South Korea/GJ-HERI-A0321/2021 | EPI\_ISL\_17702369 | AY.122 | 6-71 |
| 198 | hCoV-19/South Korea/GJ-HERI-A0322/2021 | EPI\_ISL\_17702370 | AY.69 | 6-72 |
| 199 | hCoV-19/South Korea/GJ-HERI-A0323/2021 | EPI\_ISL\_17702371 | AY.122 | 6-73 |
| 200 | hCoV-19/South Korea/GJ-HERI-A0328/2021 | EPI\_ISL\_17702376 | AY.122 | 6-74 |
| 201 | hCoV-19/South Korea/GJ-HERI-A0332/2021 | EPI\_ISL\_17702380 | AY.69 | 6-75 |
| 202 | hCoV-19/South Korea/GJ-HERI-A0334/2021 | EPI\_ISL\_17702382 | AY.69 | 6-76 |
| 203 | hCoV-19/South Korea/GJ-HERI-A0337/2021 | EPI\_ISL\_17702385 | AY.69 | 6-77 |
| 204 | hCoV-19/South Korea/GJ-HERI-A0338/2021 | EPI\_ISL\_17702386 | AY.122 | 6-78 |
| 205 | hCoV-19/South Korea/GJ-HERI-A0339/2021 | EPI\_ISL\_17702387 | AY.69 | 6-79 |
| 206 | hCoV-19/South Korea/GJ-HERI-A0340/2021 | EPI\_ISL\_17702388 | AY.122 | 6-80 |
| 207 | hCoV-19/South Korea/GJ-HERI-A0341/2021 | EPI\_ISL\_17702389 | AY.122 | 6-81 |
| 208 | hCoV-19/South Korea/GJ-HERI-A0342/2021 | EPI\_ISL\_17702390 | AY.122 | 6-82 |
| 209 | hCoV-19/South Korea/GJ-HERI-A0343/2021 | EPI\_ISL\_17702391 | AY.122 | 6-83 |
| 210 | hCoV-19/South Korea/GJ-HERI-A0344/2021 | EPI\_ISL\_17702392 | AY.122 | 6-84 |
| 211 | hCoV-19/South Korea/GJ-HERI-A0345/2021 | EPI\_ISL\_17702393 | AY.69 | 6-85 |
| 212 | hCoV-19/South Korea/GJ-HERI-A0346/2021 | EPI\_ISL\_17702394 | AY.69 | 6-86 |
| 213 | hCoV-19/South Korea/GJ-HERI-A0347/2021 | EPI\_ISL\_17702395 | AY.69 | 6-87 |
| 214 | hCoV-19/South Korea/GJ-HERI-A0348/2021 | EPI\_ISL\_17702396 | AY.69 | 6-88 |
| 215 | hCoV-19/South Korea/GJ-HERI-A0349/2021 | EPI\_ISL\_17702397 | AY.122 | 6-89 |
| 216 | hCoV-19/South Korea/GJ-HERI-A0350/2021 | EPI\_ISL\_17702398 | AY.122 | 6-90 |
| 217 | hCoV-19/South Korea/GJ-HERI-A0351/2021 | EPI\_ISL\_17702399 | AY.122 | 6-91 |
| 218 | hCoV-19/South Korea/GJ-HERI-A0352/2021 | EPI\_ISL\_17702400 | AY.69 | 6-92 |
| 219 | hCoV-19/South Korea/GJ-HERI-A0353/2021 | EPI\_ISL\_17702401 | AY.69 | 6-93 |
| 220 | hCoV-19/South Korea/GJ-HERI-A0354/2021 | EPI\_ISL\_17702402 | AY.69 | 6-94 |
| 221 | hCoV-19/South Korea/GJ-HERI-A0355/2021 | EPI\_ISL\_17702403 | AY.69 | 6-95 |
| 222 | hCoV-19/South Korea/GJ-HERI-A0356/2021 | EPI\_ISL\_17702404 | AY.69 | 6-96 |
| 223 | hCoV-19/South Korea/GJ-HERI-A0357/2021 | EPI\_ISL\_17702405 | AY.69 | 6-97 |
| 224 | hCoV-19/South Korea/GJ-HERI-A0358/2021 | EPI\_ISL\_17702406 | AY.69 | 6-98 |
| 225 | hCoV-19/South Korea/GJ-HERI-A0359/2021 | EPI\_ISL\_17702407 | AY.122.5 | 6-99 |
| 226 | hCoV-19/South Korea/GJ-HERI-A0360/2021 | EPI\_ISL\_17702408 | AY.69 | 6-100 |
| 227 | hCoV-19/South Korea/GJ-HERI-A0361/2021 | EPI\_ISL\_17702409 | AY.69 | 6-101 |
| 228 | hCoV-19/South Korea/GJ-HERI-A0362/2021 | EPI\_ISL\_17702410 | AY.69 | 6-102 |
| 229 | hCoV-19/South Korea/GJ-HERI-A0363/2021 | EPI\_ISL\_17702411 | AY.69 | 6-103 |
| 230 | hCoV-19/South Korea/GJ-HERI-A0364/2021 | EPI\_ISL\_17702412 | AY.69 | 6-104 |
| 231 | hCoV-19/South Korea/GJ-HERI-A0376/2021 | EPI\_ISL\_17702424 | AY.69 | 6-105 |
| 232 | hCoV-19/South Korea/GJ-HERI-A0377/2021 | EPI\_ISL\_17702425 | AY.69 | 6-106 |
| 233 | hCoV-19/South Korea/GJ-HERI-A0378/2021 | EPI\_ISL\_17702426 | AY.69 | 6-107 |
| 234 | hCoV-19/South Korea/GJ-HERI-A0380/2021 | EPI\_ISL\_17702428 | AY.69 | 6-108 |
| 235 | hCoV-19/South Korea/GJ-HERI-A0387/2021 | EPI\_ISL\_17702435 | AY.69 | 6-109 |
| 236 | hCoV-19/South Korea/GJ-HERI-A0393/2021 | EPI\_ISL\_17702441 | AY.69 | 6-110 |
| 237 | hCoV-19/South Korea/GJ-HERI-A0394/2021 | EPI\_ISL\_17702442 | AY.69 | 6-111 |
| 238 | hCoV-19/South Korea/GJ-HERI-A0395/2021 | EPI\_ISL\_17702443 | AY.69 | 6-112 |
| 239 | hCoV-19/South Korea/GJ-HERI-A0398/2021 | EPI\_ISL\_17702446 | AY.69 | 6-113 |
| 240 | hCoV-19/South Korea/GJ-HERI-A0403/2021 | EPI\_ISL\_17702451 | AY.69 | 6-114 |
| 241 | hCoV-19/South Korea/GJ-HERI-A0404/2021 | EPI\_ISL\_17702452 | AY.69 | 6-115 |
| 242 | hCoV-19/South Korea/GJ-HERI-A0405/2021 | EPI\_ISL\_17702453 | AY.69 | 6-116 |
| 243 | hCoV-19/South Korea/GJ-HERI-A0406/2021 | EPI\_ISL\_17702454 | AY.69 | 6-117 |
| 244 | hCoV-19/South Korea/GJ-HERI-A0407/2021 | EPI\_ISL\_17702455 | AY.69 | 6-118 |
| 245 | hCoV-19/South Korea/GJ-HERI-A0401/2021 | EPI\_ISL\_17702449 | AY.69 | 6-119 |
| 246 | hCoV-19/South Korea/GJ-HERI-A0429/2022 | EPI\_ISL\_17702479 | BA.1.1 | 7-1 |
| 247 | hCoV-19/South Korea/GJ-HERI-A0434/2022 | EPI\_ISL\_17702484 | BA.1.1 | 7-2 |
| 248 | hCoV-19/South Korea/GJ-HERI-A0437/2022 | EPI\_ISL\_17702487 | BA.1.1 | 7-3 |
| 249 | hCoV-19/South Korea/GJ-HERI-A0438/2022 | EPI\_ISL\_17702488 | BA.1.1.5 | 7-4 |
| 250 | hCoV-19/South Korea/GJ-HERI-A0439/2022 | EPI\_ISL\_17702489 | BA.1.1 | 7-5 |
| 251 | hCoV-19/South Korea/GJ-HERI-A0440/2022 | EPI\_ISL\_17702490 | BA.1.1.5 | 7-6 |
| 252 | hCoV-19/South Korea/GJ-HERI-A0441/2022 | EPI\_ISL\_17702491 | BA.1.1 | 7-7 |
| 253 | hCoV-19/South Korea/GJ-HERI-A0442/2022 | EPI\_ISL\_17702492 | BA.1.1.5 | 7-8 |
| 254 | hCoV-19/South Korea/GJ-HERI-A0443/2022 | EPI\_ISL\_17702493 | BA.1.1.5 | 7-9 |
| 255 | hCoV-19/South Korea/GJ-HERI-A0444/2022 | EPI\_ISL\_17702494 | BA.1.1 | 7-10 |
| 256 | hCoV-19/South Korea/GJ-HERI-A0445/2022 | EPI\_ISL\_17702495 | BA.1.1.5 | 7-11 |
| 257 | hCoV-19/South Korea/GJ-HERI-A0446/2022 | EPI\_ISL\_17702496 | BA.1.1 | 7-12 |
| 258 | hCoV-19/South Korea/GJ-HERI-A0447/2022 | EPI\_ISL\_17702497 | BA.1.1 | 7-13 |
| 259 | hCoV-19/South Korea/GJ-HERI-A0448/2022 | EPI\_ISL\_17702498 | BA.1.1 | 7-14 |
| 260 | hCoV-19/South Korea/GJ-HERI-A0449/2022 | EPI\_ISL\_17702499 | BA.1.1 | 7-15 |
| 261 | hCoV-19/South Korea/GJ-HERI-A0450/2022 | EPI\_ISL\_17702500 | BA.1.1 | 7-16 |
| 262 | hCoV-19/South Korea/GJ-HERI-A0451/2022 | EPI\_ISL\_17702501 | BA.1.1 | 7-17 |
| 263 | hCoV-19/South Korea/GJ-HERI-A0459/2022 | EPI\_ISL\_17702509 | BA.1.1 | 7-18 |
| 264 | hCoV-19/South Korea/GJ-HERI-A0460/2022 | EPI\_ISL\_17702510 | BA.1.1 | 7-19 |
| 265 | hCoV-19/South Korea/GJ-HERI-A0461/2022 | EPI\_ISL\_17702511 | BA.1.1.5 | 7-20 |
| 266 | hCoV-19/South Korea/GJ-HERI-A0462/2022 | EPI\_ISL\_17702512 | BA.1.1.5 | 7-21 |
| 267 | hCoV-19/South Korea/GJ-HERI-A0476/2022 | EPI\_ISL\_17702526 | BA.1.1 | 7-22 |
| 268 | hCoV-19/South Korea/GJ-HERI-A0477/2022 | EPI\_ISL\_17702527 | BA.1.1.5 | 7-23 |
| 269 | hCoV-19/South Korea/GJ-HERI-A0478/2022 | EPI\_ISL\_17702528 | BA.1.1.5 | 7-24 |
| 270 | hCoV-19/South Korea/GJ-HERI-A0480/2022 | EPI\_ISL\_17702530 | BA.1.1 | 7-25 |
| 271 | hCoV-19/South Korea/GJ-HERI-A0481/2022 | EPI\_ISL\_17702531 | BA.1.1 | 7-26 |
| 272 | hCoV-19/South Korea/GJ-HERI-A0482/2022 | EPI\_ISL\_17702532 | BA.1.1 | 7-27 |
| 273 | hCoV-19/South Korea/GJ-HERI-A0483/2022 | EPI\_ISL\_17702533 | BA.1.1.5 | 7-28 |
| 274 | hCoV-19/South Korea/GJ-HERI-A0484/2022 | EPI\_ISL\_17702534 | BA.1.1 | 7-29 |
| 275 | hCoV-19/South Korea/GJ-HERI-A0485/2022 | EPI\_ISL\_17702535 | BA.1.1.5 | 7-30 |
| 276 | hCoV-19/South Korea/GJ-HERI-A0535/2022 | EPI\_ISL\_17702582 | BA.1.1.5 | 7-31 |
| 277 | hCoV-19/South Korea/GJ-HERI-A0536/2022 | EPI\_ISL\_17702583 | BA.1.1 | 7-32 |
| 278 | hCoV-19/South Korea/GJ-HERI-A0537/2022 | EPI\_ISL\_17702584 | BA.1.1 | 7-33 |
| 279 | hCoV-19/South Korea/GJ-HERI-A0538/2022 | EPI\_ISL\_17702585 | BA.1.1.5 | 7-34 |
| 280 | hCoV-19/South Korea/GJ-HERI-A0539/2022 | EPI\_ISL\_17702586 | BA.1.1.5 | 7-35 |
| 281 | hCoV-19/South Korea/GJ-HERI-A0540/2022 | EPI\_ISL\_17702587 | BA.1.1.5 | 7-36 |
| 282 | hCoV-19/South Korea/GJ-HERI-A0541/2022 | EPI\_ISL\_17702588 | BA.1.1.5 | 7-37 |
| 283 | hCoV-19/South Korea/GJ-HERI-A0542/2022 | EPI\_ISL\_17702589 | BA.1.1 | 7-38 |
| 284 | hCoV-19/South Korea/GJ-HERI-A0543/2022 | EPI\_ISL\_17702590 | BA.1.1 | 7-39 |
| 285 | hCoV-19/South Korea/GJ-HERI-A0544/2022 | EPI\_ISL\_17702591 | BA.1.1 | 7-40 |
| 286 | hCoV-19/South Korea/GJ-HERI-A0587/2022 | EPI\_ISL\_17702634 | BA.1.1 | 7-41 |
| 287 | hCoV-19/South Korea/GJ-HERI-A0588/2022 | EPI\_ISL\_17719137 | BA.1.1 | 7-42 |
| 288 | hCoV-19/South Korea/GJ-HERI-A0589/2022 | EPI\_ISL\_17702635 | BA.1.1 | 7-43 |
| 289 | hCoV-19/South Korea/GJ-HERI-A0590/2022 | EPI\_ISL\_17702636 | BA.1.1.5 | 7-44 |
| 290 | hCoV-19/South Korea/GJ-HERI-A0591/2022 | EPI\_ISL\_17702637 | BA.1.1.5 | 7-45 |
| 291 | hCoV-19/South Korea/GJ-HERI-A0592/2022 | EPI\_ISL\_17702638 | BA.1.1.5 | 7-46 |
| 292 | hCoV-19/South Korea/GJ-HERI-A0593/2022 | EPI\_ISL\_17702639 | BA.1.1.5 | 7-47 |
| 293 | hCoV-19/South Korea/GJ-HERI-A0594/2022 | EPI\_ISL\_17702640 | BA.1.1.5 | 7-48 |
| 294 | hCoV-19/South Korea/GJ-HERI-A0595/2022 | EPI\_ISL\_17702641 | BA.1.1 | 7-49 |
| 295 | hCoV-19/South Korea/GJ-HERI-A0596/2022 | EPI\_ISL\_17702642 | BA.1.1 | 7-50 |
| 296 | hCoV-19/South Korea/GJ-HERI-A0621/2022 | EPI\_ISL\_17702667 | BA.1.1.5 | 7-51 |
| 297 | hCoV-19/South Korea/GJ-HERI-A0622/2022 | EPI\_ISL\_17702668 | BA.1.1.5 | 7-52 |
| 298 | hCoV-19/South Korea/GJ-HERI-A0623/2022 | EPI\_ISL\_17702669 | BA.1.1 | 7-53 |
| 299 | hCoV-19/South Korea/GJ-HERI-A0624/2022 | EPI\_ISL\_17702670 | BA.1.1 | 7-54 |
| 300 | hCoV-19/South Korea/GJ-HERI-A0625/2022 | EPI\_ISL\_17702671 | BA.1.1.5 | 7-55 |
| 301 | hCoV-19/South Korea/GJ-HERI-A0626/2022 | EPI\_ISL\_17702672 | BA.1.1.5 | 7-56 |
| 302 | hCoV-19/South Korea/GJ-HERI-A0627/2022 | EPI\_ISL\_17702673 | BA.1.1 | 7-57 |
| 303 | hCoV-19/South Korea/GJ-HERI-A0630/2022 | EPI\_ISL\_17702676 | BA.1.1.5 | 7-58 |
| 304 | hCoV-19/South Korea/GJ-HERI-A0631/2022 | EPI\_ISL\_17702677 | BA.1.1 | 7-59 |
| 305 | hCoV-19/South Korea/GJ-HERI-A0632/2022 | EPI\_ISL\_17702678 | BA.1.1 | 7-60 |
| 306 | hCoV-19/South Korea/GJ-HERI-A0633/2022 | EPI\_ISL\_17702679 | BA.1.1.5 | 7-61 |
| 307 | hCoV-19/South Korea/GJ-HERI-A0634/2022 | EPI\_ISL\_17702680 | BA.1.1 | 7-62 |
| 308 | hCoV-19/South Korea/GJ-HERI-A0635/2022 | EPI\_ISL\_17702681 | BA.1.1.5 | 7-63 |
| 309 | hCoV-19/South Korea/GJ-HERI-A0636/2022 | EPI\_ISL\_17702682 | BA.1.1 | 7-64 |
| 310 | hCoV-19/South Korea/GJ-HERI-A0637/2022 | EPI\_ISL\_17702683 | BA.1.1.5 | 7-65 |
| 311 | hCoV-19/South Korea/GJ-HERI-A0638/2022 | EPI\_ISL\_17702684 | BA.1.17.2 | 7-66 |
| 312 | hCoV-19/South Korea/GJ-HERI-A0671/2022 | EPI\_ISL\_17702717 | BA.1.1.5 | 7-67 |
| 313 | hCoV-19/South Korea/GJ-HERI-A0672/2022 | EPI\_ISL\_17702718 | BA.1.1 | 7-68 |
| 314 | hCoV-19/South Korea/GJ-HERI-A0673/2022 | EPI\_ISL\_17702719 | BA.1.1 | 7-69 |
| 315 | hCoV-19/South Korea/GJ-HERI-A0674/2022 | EPI\_ISL\_17702720 | BA.1.1 | 7-70 |
| 316 | hCoV-19/South Korea/GJ-HERI-A0675/2022 | EPI\_ISL\_17702721 | BA.1.1.5 | 7-71 |
| 317 | hCoV-19/South Korea/GJ-HERI-A0676/2022 | EPI\_ISL\_17702722 | BA.1.1 | 7-72 |
| 318 | hCoV-19/South Korea/GJ-HERI-A0677/2022 | EPI\_ISL\_17702723 | BA.1.1 | 7-73 |
| 319 | hCoV-19/South Korea/GJ-HERI-A0678/2022 | EPI\_ISL\_17702724 | BA.1.1 | 7-74 |
| 320 | hCoV-19/South Korea/GJ-HERI-A0679/2022 | EPI\_ISL\_17702725 | BA.1.1 | 7-75 |
| 321 | hCoV-19/South Korea/GJ-HERI-A0680/2022 | EPI\_ISL\_17702726 | BA.1.1.5 | 7-76 |
| 322 | hCoV-19/South Korea/GJ-HERI-A0681/2022 | EPI\_ISL\_17702727 | BA.1.1 | 7-77 |
| 323 | hCoV-19/South Korea/GJ-HERI-A0689/2022 | EPI\_ISL\_17702768 | BA.2 | 8-1 |
| 324 | hCoV-19/South Korea/GJ-HERI-A0692/2022 | EPI\_ISL\_17702771 | BA.2.10 | 8-2 |
| 325 | hCoV-19/South Korea/GJ-HERI-A0693/2022 | EPI\_ISL\_17702772 | BA.2.3.13 | 8-3 |
| 326 | hCoV-19/South Korea/GJ-HERI-A0694/2022 | EPI\_ISL\_17702773 | BA.2.10 | 8-4 |
| 327 | hCoV-19/South Korea/GJ-HERI-A0695/2022 | EPI\_ISL\_17702774 | BA.2.3 | 8-5 |
| 328 | hCoV-19/South Korea/GJ-HERI-A0700/2022 | EPI\_ISL\_17702779 | BA.2.10 | 8-6 |
| 229 | hCoV-19/South Korea/GJ-HERI-A0701/2022 | EPI\_ISL\_17702780 | BA.2.10 | 8-7 |
| 330 | hCoV-19/South Korea/GJ-HERI-A0702/2022 | EPI\_ISL\_17702781 | BA.2.3 | 8-8 |
| 331 | hCoV-19/South Korea/GJ-HERI-A0703/2022 | EPI\_ISL\_17702782 | BA.2 | 8-9 |
| 332 | hCoV-19/South Korea/GJ-HERI-A0704/2022 | EPI\_ISL\_17702783 | BA.2.10 | 8-10 |
| 333 | hCoV-19/South Korea/GJ-HERI-A0705/2022 | EPI\_ISL\_17702784 | BA.2 | 8-11 |
| 334 | hCoV-19/South Korea/GJ-HERI-A0706/2022 | EPI\_ISL\_17702785 | BA.2.3 | 8-12 |
| 335 | hCoV-19/South Korea/GJ-HERI-A0707/2022 | EPI\_ISL\_17702786 | BA.2.10 | 8-13 |
| 336 | hCoV-19/South Korea/GJ-HERI-A0708/2022 | EPI\_ISL\_17702787 | BA.2.68 | 8-14 |
| 337 | hCoV-19/South Korea/GJ-HERI-A0727/2022 | EPI\_ISL\_17702805 | BA.2 | 8-15 |
| 338 | hCoV-19/South Korea/GJ-HERI-A0728/2022 | EPI\_ISL\_17702806 | BA.2.3 | 8-16 |
| 339 | hCoV-19/South Korea/GJ-HERI-A0730/2022 | EPI\_ISL\_17702808 | BA.2.3 | 8-17 |
| 340 | hCoV-19/South Korea/GJ-HERI-A0731/2022 | EPI\_ISL\_17702809 | BA.2.3 | 8-18 |
| 341 | hCoV-19/South Korea/GJ-HERI-A0732/2022 | EPI\_ISL\_17702810 | BA.2.3 | 8-19 |
| 342 | hCoV-19/South Korea/GJ-HERI-A0738/2022 | EPI\_ISL\_17702815 | BA.2.3 | 8-20 |
| 343 | hCoV-19/South Korea/GJ-HERI-A0739/2022 | EPI\_ISL\_17702816 | BA.2.3.12 | 8-21 |
| 344 | hCoV-19/South Korea/GJ-HERI-A0740/2022 | EPI\_ISL\_17702817 | BA.2.3 | 8-22 |
| 345 | hCoV-19/South Korea/GJ-HERI-A0747/2022 | EPI\_ISL\_17702824 | BA.2.3 | 8-23 |
| 346 | hCoV-19/South Korea/GJ-HERI-A0748/2022 | EPI\_ISL\_17702825 | BA.2.3 | 8-24 |
| 347 | hCoV-19/South Korea/GJ-HERI-A0749/2022 | EPI\_ISL\_17702826 | BA.2.65 | 8-25 |
| 348 | hCoV-19/South Korea/GJ-HERI-A0754/2022 | EPI\_ISL\_17702831 | BA.2.3 | 8-26 |
| 349 | hCoV-19/South Korea/GJ-HERI-A0755/2022 | EPI\_ISL\_17702832 | BA.2.68 | 8-27 |
| 350 | hCoV-19/South Korea/GJ-HERI-A0756/2022 | EPI\_ISL\_17702833 | BA.2.3.13 | 8-28 |
| 351 | hCoV-19/South Korea/GJ-HERI-A0757/2022 | EPI\_ISL\_17702834 | BA.2.3 | 8-29 |
| 352 | hCoV-19/South Korea/GJ-HERI-A0758/2022 | EPI\_ISL\_17702835 | BA.2.3 | 8-30 |
| 353 | hCoV-19/South Korea/GJ-HERI-A0868/2022 | EPI\_ISL\_17702945 | BA.2.3 | 8-31 |
| 354 | hCoV-19/South Korea/GJ-HERI-A0869/2022 | EPI\_ISL\_17702946 | BA.2.3 | 8-32 |
| 355 | hCoV-19/South Korea/GJ-HERI-A0870/2022 | EPI\_ISL\_17702947 | BA.2.3 | 8-33 |
| 356 | hCoV-19/South Korea/GJ-HERI-A0871/2022 | EPI\_ISL\_17702948 | BA.2.65 | 8-34 |
| 357 | hCoV-19/South Korea/GJ-HERI-A0872/2022 | EPI\_ISL\_17702949 | BA.2.3 | 8-35 |
| 358 | hCoV-19/South Korea/GJ-HERI-A0946/2022 | EPI\_ISL\_17703023 | BA.2.3 | 8-36 |
| 359 | hCoV-19/South Korea/GJ-HERI-A0947/2022 | EPI\_ISL\_17703024 | BA.2.3 | 8-37 |
| 360 | hCoV-19/South Korea/GJ-HERI-A0948/2022 | EPI\_ISL\_17703025 | BA.2.3.8 | 8-38 |
| 361 | hCoV-19/South Korea/GJ-HERI-A0949/2022 | EPI\_ISL\_17703026 | BA.2.3 | 8-39 |
| 362 | hCoV-19/South Korea/GJ-HERI-A0950/2022 | EPI\_ISL\_17703027 | BA.2.3 | 8-40 |
| 363 | hCoV-19/South Korea/GJ-HERI-A0976/2022 | EPI\_ISL\_17703053 | BA.2.3 | 8-41 |
| 364 | hCoV-19/South Korea/GJ-HERI-A0977/2022 | EPI\_ISL\_17703054 | BA.2.3 | 8-42 |
| 365 | hCoV-19/South Korea/GJ-HERI-A0978/2022 | EPI\_ISL\_17703055 | BA.2.3 | 8-43 |
| 366 | hCoV-19/South Korea/GJ-HERI-A0979/2022 | EPI\_ISL\_17703056 | BA.2.3 | 8-44 |
| 367 | hCoV-19/South Korea/GJ-HERI-A0980/2022 | EPI\_ISL\_17703057 | BA.2.65 | 8-45 |
| 368 | hCoV-19/South Korea/GJ-HERI-A1000/2022 | EPI\_ISL\_17703077 | BA.2 | 8-46 |
| 369 | hCoV-19/South Korea/GJ-HERI-A1001/2022 | EPI\_ISL\_17703078 | BA.2 | 8-47 |
| 370 | hCoV-19/South Korea/GJ-HERI-A1002/2022 | EPI\_ISL\_17703079 | BA.2.3 | 8-48 |
| 371 | hCoV-19/South Korea/GJ-HERI-A1003/2022 | EPI\_ISL\_17703080 | BA.2.3 | 8-49 |
| 372 | hCoV-19/South Korea/GJ-HERI-A1004/2022 | EPI\_ISL\_17703081 | BA.2 | 8-50 |
| 373 | hCoV-19/South Korea/GJ-HERI-A1044/2022 | EPI\_ISL\_17703123 | BA.2.3 | 8-51 |
| 374 | hCoV-19/South Korea/GJ-HERI-A1045/2022 | EPI\_ISL\_17703124 | BA.2.12.1 | 8-52 |
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| 377 | hCoV-19/South Korea/GJ-HERI-A1048/2022 | EPI\_ISL\_17703127 | BA.2 | 8-55 |
| 378 | hCoV-19/South Korea/GJ-HERI-A1071/2022 | EPI\_ISL\_17703150 | BA.2.56 | 8-56 |
| 379 | hCoV-19/South Korea/GJ-HERI-A1074/2022 | EPI\_ISL\_17703153 | BA.2.12.1 | 8-57 |
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| 381 | hCoV-19/South Korea/GJ-HERI-A1088/2022 | EPI\_ISL\_17703167 | BA.2.12.1 | 8-59 |
| 382 | hCoV-19/South Korea/GJ-HERI-A1089/2022 | EPI\_ISL\_17703168 | BA.2.40.1 | 8-60 |
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| 393 | hCoV-19/South Korea/GJ-HERI-A1195/2022 | EPI\_ISL\_17703274 | BA.2.3 | 8-71 |
| 394 | hCoV-19/South Korea/GJ-HERI-A1199/2022 | EPI\_ISL\_17703278 | BA.2.3 | 8-72 |
| 395 | hCoV-19/South Korea/GJ-HERI-A1200/2022 | EPI\_ISL\_17703279 | BA.2.65 | 8-73 |
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| 417 | hCoV-19/South Korea/GJ-HERI-A1245/2022 | EPI\_ISL\_17703324 | BA.2.56 | 8-95 |
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| 429 | hCoV-19/South Korea/GJ-HERI-A1296/2022 | EPI\_ISL\_17703375 | BN.1.3 | 8-107 |
| 430 | hCoV-19/South Korea/GJ-HERI-A1297/2022 | EPI\_ISL\_17703376 | BN.1.3 | 8-108 |
| 431 | hCoV-19/South Korea/GJ-HERI-A1298/2022 | EPI\_ISL\_17703377 | BA.2.75.4 | 8-109 |
| 432 | hCoV-19/South Korea/GJ-HERI-A1299/2022 | EPI\_ISL\_17703378 | BN.1.3 | 8-110 |
| 433 | hCoV-19/South Korea/GJ-HERI-A1300/2022 | EPI\_ISL\_17703379 | BA.2.3.20 | 8-111 |
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| 435 | hCoV-19/South Korea/GJ-HERI-A1346/2022 | EPI\_ISL\_17703425 | BN.1.3 | 8-113 |
| 436 | hCoV-19/South Korea/GJ-HERI-A1347/2022 | EPI\_ISL\_17703426 | BL.1 | 8-114 |
| 437 | hCoV-19/South Korea/GJ-HERI-A1348/2022 | EPI\_ISL\_17703427 | CM.4 | 8-115 |
| 438 | hCoV-19/South Korea/GJ-HERI-A1363/2022 | EPI\_ISL\_17703442 | BN.1.2 | 8-116 |
| 439 | hCoV-19/South Korea/GJ-HERI-A1364/2022 | EPI\_ISL\_17703443 | BN.1.3 | 8-117 |
| 440 | hCoV-19/South Korea/GJ-HERI-A1365/2022 | EPI\_ISL\_17703444 | BN.1.2 | 8-118 |
| 441 | hCoV-19/South Korea/GJ-HERI-A1366/2022 | EPI\_ISL\_17703445 | BA.2.75.4 | 8-119 |
| 442 | hCoV-19/South Korea/GJ-HERI-A1367/2022 | EPI\_ISL\_17703446 | BN.4 | 8-120 |
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| 444 | hCoV-19/South Korea/GJ-HERI-A1379/2022 | EPI\_ISL\_17703458 | BA.4.1.1 | 9-2 |
| 445 | hCoV-19/South Korea/GJ-HERI-A1382/2022 | EPI\_ISL\_17703461 | BA.4.1.1 | 9-3 |
| 446 | hCoV-19/South Korea/GJ-HERI-A1383/2022 | EPI\_ISL\_17703462 | BA.4.1.1 | 9-4 |
| 447 | hCoV-19/South Korea/GJ-HERI-A1384/2022 | EPI\_ISL\_17703463 | BA.4.1 | 9-5 |
| 448 | hCoV-19/South Korea/GJ-HERI-A1389/2022 | EPI\_ISL\_17703468 | BA.4.4 | 9-6 |
| 449 | hCoV-19/South Korea/GJ-HERI-A1390/2022 | EPI\_ISL\_17719130 | BA.4.1.8 | 9-7 |
| 450 | hCoV-19/South Korea/GJ-HERI-A1391/2022 | EPI\_ISL\_17703469 | BA.4.1 | 9-8 |
| 451 | hCoV-19/South Korea/GJ-HERI-A1392/2022 | EPI\_ISL\_17703470 | BA.4.1 | 9-9 |
| 452 | hCoV-19/South Korea/GJ-HERI-A1408/2022 | EPI\_ISL\_17697006 | BA.5.1.10 | 10-1 |
| 453 | hCoV-19/South Korea/GJ-HERI-A1409/2022 | EPI\_ISL\_17697007 | BA.5.2.9 | 10-2 |
| 454 | hCoV-19/South Korea/GJ-HERI-A1410/2022 | EPI\_ISL\_17697008 | BA.5.2.9 | 10-3 |
| 455 | hCoV-19/South Korea/GJ-HERI-A1411/2022 | EPI\_ISL\_17697009 | BA.5.2.9 | 10-4 |
| 456 | hCoV-19/South Korea/GJ-HERI-A1412/2022 | EPI\_ISL\_17697010 | BF.21 | 10-5 |
| 457 | hCoV-19/South Korea/GJ-HERI-A1413/2022 | EPI\_ISL\_17697011 | BA.5.1.10 | 10-6 |
| 458 | hCoV-19/South Korea/GJ-HERI-A1416/2022 | EPI\_ISL\_17697014 | BA.5.2 | 10-7 |
| 459 | hCoV-19/South Korea/GJ-HERI-A1417/2022 | EPI\_ISL\_17697015 | BE.1.1 | 10-8 |
| 460 | hCoV-19/South Korea/GJ-HERI-A1418/2022 | EPI\_ISL\_17697016 | BA.5.2.1 | 10-9 |
| 461 | hCoV-19/South Korea/GJ-HERI-A1419/2022 | EPI\_ISL\_17697017 | BA.5.5 | 10-10 |
| 462 | hCoV-19/South Korea/GJ-HERI-A1420/2022 | EPI\_ISL\_17697018 | BA.5.5 | 10-11 |
| 463 | hCoV-19/South Korea/GJ-HERI-A1421/2022 | EPI\_ISL\_17697019 | BA.5.5 | 10-12 |
| 464 | hCoV-19/South Korea/GJ-HERI-A1422/2022 | EPI\_ISL\_17697020 | BA.5.2 | 10-13 |
| 465 | hCoV-19/South Korea/GJ-HERI-A1423/2022 | EPI\_ISL\_17697021 | BA.5.2 | 10-14 |
| 466 | hCoV-19/South Korea/GJ-HERI-A1454/2022 | EPI\_ISL\_17697052 | BA.5.2 | 10-15 |
| 467 | hCoV-19/South Korea/GJ-HERI-A1455/2022 | EPI\_ISL\_17697053 | BA.5.1 | 10-16 |
| 468 | hCoV-19/South Korea/GJ-HERI-A1456/2022 | EPI\_ISL\_17697054 | BA.5.2 | 10-17 |
| 469 | hCoV-19/South Korea/GJ-HERI-A1457/2022 | EPI\_ISL\_17697055 | BA.5.1 | 10-18 |
| 470 | hCoV-19/South Korea/GJ-HERI-A1458/2022 | EPI\_ISL\_17697056 | BA.5.2.1 | 10-19 |
| 471 | hCoV-19/South Korea/GJ-HERI-A1459/2022 | EPI\_ISL\_17697057 | BA.5.2 | 10-20 |
| 472 | hCoV-19/South Korea/GJ-HERI-A1460/2022 | EPI\_ISL\_17697058 | BA.5.2.1 | 10-21 |
| 473 | hCoV-19/South Korea/GJ-HERI-A1461/2022 | EPI\_ISL\_17697059 | BA.5.2.27 | 10-22 |
| 474 | hCoV-19/South Korea/GJ-HERI-A1462/2022 | EPI\_ISL\_17697060 | BA.5.10 | 10-23 |
| 475 | hCoV-19/South Korea/GJ-HERI-A1463/2022 | EPI\_ISL\_17697061 | BA.5.2 | 10-24 |
| 476 | hCoV-19/South Korea/GJ-HERI-A1464/2022 | EPI\_ISL\_17697062 | BA.5.2 | 10-25 |
| 477 | hCoV-19/South Korea/GJ-HERI-A1465/2022 | EPI\_ISL\_17697063 | BA.5.1 | 10-26 |
| 478 | hCoV-19/South Korea/GJ-HERI-A1466/2022 | EPI\_ISL\_17697064 | BA.5.1 | 10-27 |
| 479 | hCoV-19/South Korea/GJ-HERI-A1473/2022 | EPI\_ISL\_17697071 | BA.5.5 | 10-28 |
| 480 | hCoV-19/South Korea/GJ-HERI-A1474/2022 | EPI\_ISL\_17697072 | BA.5.2.1 | 10-29 |
| 481 | hCoV-19/South Korea/GJ-HERI-A1475/2022 | EPI\_ISL\_17697073 | BA.5.2 | 10-30 |
| 482 | hCoV-19/South Korea/GJ-HERI-A1476/2022 | EPI\_ISL\_17697074 | BA.5.5 | 10-31 |
| 483 | hCoV-19/South Korea/GJ-HERI-A1477/2022 | EPI\_ISL\_17697075 | BA.5.2.1 | 10-32 |
| 484 | hCoV-19/South Korea/GJ-HERI-A1478/2022 | EPI\_ISL\_17697076 | BA.5.2 | 10-33 |
| 485 | hCoV-19/South Korea/GJ-HERI-A1479/2022 | EPI\_ISL\_17697077 | BA.5.5 | 10-34 |
| 486 | hCoV-19/South Korea/GJ-HERI-A1489/2022 | EPI\_ISL\_17697087 | BA.5.2 | 10-35 |
| 487 | hCoV-19/South Korea/GJ-HERI-A1490/2022 | EPI\_ISL\_17697088 | BF.3 | 10-36 |
| 488 | hCoV-19/South Korea/GJ-HERI-A1491/2022 | EPI\_ISL\_17697089 | BA.5.8 | 10-37 |
| 489 | hCoV-19/South Korea/GJ-HERI-A1492/2022 | EPI\_ISL\_17697090 | BF.5 | 10-38 |
| 490 | hCoV-19/South Korea/GJ-HERI-A1493/2022 | EPI\_ISL\_17697091 | BF.5 | 10-39 |
| 491 | hCoV-19/South Korea/GJ-HERI-A1494/2022 | EPI\_ISL\_17697092 | BA.5.2 | 10-40 |
| 492 | hCoV-19/South Korea/GJ-HERI-A1508/2022 | EPI\_ISL\_17697106 | BA.5.1 | 10-41 |
| 493 | hCoV-19/South Korea/GJ-HERI-A1509/2022 | EPI\_ISL\_17697107 | BA.5.1 | 10-42 |
| 494 | hCoV-19/South Korea/GJ-HERI-A1510/2022 | EPI\_ISL\_17697108 | BA.5.2.20 | 10-43 |
| 495 | hCoV-19/South Korea/GJ-HERI-A1511/2022 | EPI\_ISL\_17697109 | BF.21 | 10-44 |
| 496 | hCoV-19/South Korea/GJ-HERI-A1512/2022 | EPI\_ISL\_17697110 | BA.5.2.1 | 10-45 |
| 497 | hCoV-19/South Korea/GJ-HERI-A1513/2022 | EPI\_ISL\_17697111 | BA.5.5 | 10-46 |
| 498 | hCoV-19/South Korea/GJ-HERI-A1514/2022 | EPI\_ISL\_17697112 | BF.10 | 10-47 |
| 499 | hCoV-19/South Korea/GJ-HERI-A1515/2022 | EPI\_ISL\_17697113 | BA.5.9 | 10-48 |
| 500 | hCoV-19/South Korea/GJ-HERI-A1516/2022 | EPI\_ISL\_17697114 | BA.5.6 | 10-49 |
| 501 | hCoV-19/South Korea/GJ-HERI-A1559/2022 | EPI\_ISL\_17697158 | BF.24 | 10-50 |
| 502 | hCoV-19/South Korea/GJ-HERI-A1560/2022 | EPI\_ISL\_17697159 | BA.5.2.3 | 10-51 |
| 503 | hCoV-19/South Korea/GJ-HERI-A1561/2022 | EPI\_ISL\_17697160 | BA.5.2 | 10-52 |
| 504 | hCoV-19/South Korea/GJ-HERI-A1562/2022 | EPI\_ISL\_17697161 | BA.5.2 | 10-53 |
| 505 | hCoV-19/South Korea/GJ-HERI-A1563/2022 | EPI\_ISL\_17697162 | BA.5.2 | 10-54 |
| 506 | hCoV-19/South Korea/GJ-HERI-A1564/2022 | EPI\_ISL\_17697163 | BA.5.1 | 10-55 |
| 507 | hCoV-19/South Korea/GJ-HERI-A1565/2022 | EPI\_ISL\_17697164 | BA.5.2.22 | 10-56 |
| 508 | hCoV-19/South Korea/GJ-HERI-A1566/2022 | EPI\_ISL\_17697165 | BA.5.5 | 10-57 |
| 509 | hCoV-19/South Korea/GJ-HERI-A1567/2022 | EPI\_ISL\_17697166 | BA.5.2 | 10-58 |
| 510 | hCoV-19/South Korea/GJ-HERI-A1568/2022 | EPI\_ISL\_17697167 | BA.5.2.1 | 10-59 |
| 511 | hCoV-19/South Korea/GJ-HERI-A1642/2022 | EPI\_ISL\_17697238 | BA.5.2.1 | 10-60 |
| 512 | hCoV-19/South Korea/GJ-HERI-A1643/2022 | EPI\_ISL\_17697239 | BA.5.2.9 | 10-61 |
| 513 | hCoV-19/South Korea/GJ-HERI-A1644/2022 | EPI\_ISL\_17697240 | BA.5.2 | 10-62 |
| 514 | hCoV-19/South Korea/GJ-HERI-A1645/2022 | EPI\_ISL\_17697241 | BF.27 | 10-63 |
| 515 | hCoV-19/South Korea/GJ-HERI-A1646/2022 | EPI\_ISL\_17697242 | BA.5.2.1 | 10-64 |
| 516 | hCoV-19/South Korea/GJ-HERI-A1647/2022 | EPI\_ISL\_17697243 | BA.5.6 | 10-65 |
| 517 | hCoV-19/South Korea/GJ-HERI-A1648/2022 | EPI\_ISL\_17697244 | BA.5.2.19 | 10-66 |
| 518 | hCoV-19/South Korea/GJ-HERI-A1649/2022 | EPI\_ISL\_17697245 | BA.5.2.1 | 10-67 |
| 519 | hCoV-19/South Korea/GJ-HERI-A1650/2022 | EPI\_ISL\_17697246 | BA.5.2 | 10-68 |
| 520 | hCoV-19/South Korea/GJ-HERI-A1651/2022 | EPI\_ISL\_17697247 | BA.5.1 | 10-69 |
| 521 | hCoV-19/South Korea/GJ-HERI-A1652/2022 | EPI\_ISL\_17697248 | BA.5.2 | 10-70 |
| 522 | hCoV-19/South Korea/GJ-HERI-A1817/2022 | EPI\_ISL\_17697414 | BA.5.2 | 10-71 |
| 523 | hCoV-19/South Korea/GJ-HERI-A1818/2022 | EPI\_ISL\_17697415 | BA.5.2.1 | 10-72 |
| 524 | hCoV-19/South Korea/GJ-HERI-A1819/2022 | EPI\_ISL\_17697416 | BA.5.1 | 10-73 |
| 525 | hCoV-19/South Korea/GJ-HERI-A1820/2022 | EPI\_ISL\_17697417 | BA.5.2 | 10-74 |
| 526 | hCoV-19/South Korea/GJ-HERI-A1821/2022 | EPI\_ISL\_17697418 | BF.5 | 10-75 |
| 527 | hCoV-19/South Korea/GJ-HERI-A1822/2022 | EPI\_ISL\_17697419 | BA.5.5 | 10-76 |
| 528 | hCoV-19/South Korea/GJ-HERI-A1823/2022 | EPI\_ISL\_17697420 | BA.5.2.1 | 10-77 |
| 529 | hCoV-19/South Korea/GJ-HERI-A1824/2022 | EPI\_ISL\_17697421 | BA.5.2.1 | 10-78 |
| 530 | hCoV-19/South Korea/GJ-HERI-A1825/2022 | EPI\_ISL\_17697422 | BA.5.2 | 10-79 |
| 531 | hCoV-19/South Korea/GJ-HERI-A1826/2022 | EPI\_ISL\_17697423 | BA.5.1 | 10-80 |
| 532 | hCoV-19/South Korea/GJ-HERI-A1962/2022 | EPI\_ISL\_17698348 | BF.21 | 10-81 |
| 533 | hCoV-19/South Korea/GJ-HERI-A1963/2022 | EPI\_ISL\_17698349 | BA.5.2.1 | 10-82 |
| 534 | hCoV-19/South Korea/GJ-HERI-A1964/2022 | EPI\_ISL\_17698350 | BE.1 | 10-83 |
| 535 | hCoV-19/South Korea/GJ-HERI-A1965/2022 | EPI\_ISL\_17698351 | BA.5.2 | 10-84 |
| 536 | hCoV-19/South Korea/GJ-HERI-A1966/2022 | EPI\_ISL\_17698352 | BA.5.2.16 | 10-85 |
| 537 | hCoV-19/South Korea/GJ-HERI-A1967/2022 | EPI\_ISL\_17698353 | BA.5.2 | 10-86 |
| 538 | hCoV-19/South Korea/GJ-HERI-A1968/2022 | EPI\_ISL\_17698354 | BF.5 | 10-87 |
| 539 | hCoV-19/South Korea/GJ-HERI-A1969/2022 | EPI\_ISL\_17698355 | BA.5.2.1 | 10-88 |
| 540 | hCoV-19/South Korea/GJ-HERI-A1970/2022 | EPI\_ISL\_17698356 | BA.5.2.1 | 10-89 |
| 541 | hCoV-19/South Korea/GJ-HERI-A2012/2022 | EPI\_ISL\_17698398 | BA.5.2 | 10-90 |
| 542 | hCoV-19/South Korea/GJ-HERI-A2013/2022 | EPI\_ISL\_17698399 | BA.5.2 | 10-91 |
| 543 | hCoV-19/South Korea/GJ-HERI-A2014/2022 | EPI\_ISL\_17698400 | BA.5.2.1 | 10-92 |
| 544 | hCoV-19/South Korea/GJ-HERI-A2015/2022 | EPI\_ISL\_17698401 | BQ.1.1 | 10-93 |
| 545 | hCoV-19/South Korea/GJ-HERI-A2016/2022 | EPI\_ISL\_17698402 | BA.5.2.19 | 10-94 |
| 546 | hCoV-19/South Korea/GJ-HERI-A2017/2022 | EPI\_ISL\_17698403 | BA.5.2 | 10-95 |
| 547 | hCoV-19/South Korea/GJ-HERI-A2018/2022 | EPI\_ISL\_17698404 | BA.5.2.1 | 10-96 |
| 548 | hCoV-19/South Korea/GJ-HERI-A2019/2022 | EPI\_ISL\_17698405 | BF.7 | 10-97 |
| 549 | hCoV-19/South Korea/GJ-HERI-A2020/2022 | EPI\_ISL\_17698406 | BA.5.1 | 10-98 |
| 550 | hCoV-19/South Korea/GJ-HERI-A2056/2022 | EPI\_ISL\_17698442 | BA.5.2.19 | 10-99 |
| 551 | hCoV-19/South Korea/GJ-HERI-A2057/2022 | EPI\_ISL\_17698443 | BA.5.2.22 | 10-100 |
| 552 | hCoV-19/South Korea/GJ-HERI-A2058/2022 | EPI\_ISL\_17698444 | BA.5.1 | 10-101 |
| 553 | hCoV-19/South Korea/GJ-HERI-A2059/2022 | EPI\_ISL\_17698445 | BF.5 | 10-102 |
| 554 | hCoV-19/South Korea/GJ-HERI-A2060/2022 | EPI\_ISL\_17698446 | BA.5.2 | 10-103 |
| 555 | hCoV-19/South Korea/GJ-HERI-A2061/2022 | EPI\_ISL\_17698447 | BA.5.2.1 | 10-104 |
| 556 | hCoV-19/South Korea/GJ-HERI-A2100/2022 | EPI\_ISL\_17698486 | BA.5.2.1 | 10-105 |
| 557 | hCoV-19/South Korea/GJ-HERI-A2101/2022 | EPI\_ISL\_17698487 | BA.5.2.27 | 10-106 |
| 558 | hCoV-19/South Korea/GJ-HERI-A2102/2022 | EPI\_ISL\_17698488 | BA.5.2 | 10-107 |
| 559 | hCoV-19/South Korea/GJ-HERI-A2113/2022 | EPI\_ISL\_17698498 | BA.5.2.1 | 10-108 |
| 560 | hCoV-19/South Korea/GJ-HERI-A2114/2022 | EPI\_ISL\_17698499 | BA.5.2.1 | 10-109 |
| 561 | hCoV-19/South Korea/GJ-HERI-A2115/2022 | EPI\_ISL\_17699376 | BQ.1.1.1 | 10-110 |
| 562 | hCoV-19/South Korea/GJ-HERI-A2116/2022 | EPI\_ISL\_17698500 | BA.5.2.1 | 10-111 |
| 563 | hCoV-19/South Korea/GJ-HERI-A2136/2022 | EPI\_ISL\_17698520 | BA.5.2.1 | 10-112 |
| 564 | hCoV-19/South Korea/GJ-HERI-A2137/2022 | EPI\_ISL\_17698521 | BA.5.2 | 10-113 |
| 565 | hCoV-19/South Korea/GJ-HERI-A2138/2022 | EPI\_ISL\_17698522 | BA.5.2.22 | 10-114 |
| 566 | hCoV-19/South Korea/GJ-HERI-A2139/2022 | EPI\_ISL\_17698523 | BA.5.2 | 10-115 |
| 567 | hCoV-19/South Korea/GJ-HERI-A2140/2022 | EPI\_ISL\_17698524 | BA.5.2 | 10-116 |
| 568 | hCoV-19/South Korea/GJ-HERI-A2141/2022 | EPI\_ISL\_17698525 | BA.5.2 | 10-117 |
| 569 | hCoV-19/South Korea/GJ-HERI-A2142/2022 | EPI\_ISL\_17698526 | BA.5.2 | 10-118 |
| 570 | hCoV-19/South Korea/GJ-HERI-A2157/2022 | EPI\_ISL\_17698541 | BA.5.2.1 | 10-119 |
| 571 | hCoV-19/South Korea/GJ-HERI-A2158/2022 | EPI\_ISL\_17698542 | BA.5.2 | 10-120 |
| 572 | hCoV-19/South Korea/GJ-HERI-A2159/2022 | EPI\_ISL\_17698543 | BA.5.2 | 10-121 |
| 573 | hCoV-19/South Korea/GJ-HERI-A2160/2022 | EPI\_ISL\_17698544 | BA.5.2 | 10-122 |
| 574 | hCoV-19/South Korea/GJ-HERI-A2161/2022 | EPI\_ISL\_17698545 | BA.5.2 | 10-123 |
| 575 | hCoV-19/South Korea/GJ-HERI-A2200/2022 | EPI\_ISL\_17698582 | BA.5.2.1 | 10-124 |
| 576 | hCoV-19/South Korea/GJ-HERI-A2201/2022 | EPI\_ISL\_17698583 | BQ.1.1 | 10-125 |
| 577 | hCoV-19/South Korea/GJ-HERI-A2202/2022 | EPI\_ISL\_17698584 | CM.4 | 10-126 |
| 578 | hCoV-19/South Korea/GJ-HERI-A2203/2022 | EPI\_ISL\_17698585 | CM.4 | 10-127 |
| 579 | hCoV-19/South Korea/GJ-HERI-A2204/2022 | EPI\_ISL\_17698586 | CM.8.1 | 10-128 |
| 580 | hCoV-19/South Korea/GJ-HERI-A2205/2022 | EPI\_ISL\_17698587 | BQ.1.1 | 10-129 |
| 581 | hCoV-19/South Korea/GJ-HERI-A2206/2022 | EPI\_ISL\_17698588 | BA.5.1.5 | 10-130 |
| 582 | hCoV-19/South Korea/GJ-HERI-A2207/2022 | EPI\_ISL\_17698589 | BA.5.2.1 | 10-131 |
| 583 | hCoV-19/South Korea/GJ-HERI-A2337/2022 | EPI\_ISL\_17698719 | BA.5.2 | 10-132 |
| 584 | hCoV-19/South Korea/GJ-HERI-A2338/2022 | EPI\_ISL\_17698720 | BA.5.2 | 10-133 |
| 585 | hCoV-19/South Korea/GJ-HERI-A2340/2022 | EPI\_ISL\_17698722 | BQ.1.11 | 10-134 |
| 586 | hCoV-19/South Korea/GJ-HERI-A2344/2022 | EPI\_ISL\_17698726 | BQ.1.3 | 10-135 |
| 587 | hCoV-19/South Korea/GJ-HERI-A2363/2022 | EPI\_ISL\_17698745 | BA.5.2.44 | 10-136 |
| 588 | hCoV-19/South Korea/GJ-HERI-A2364/2022 | EPI\_ISL\_17698746 | BA.5.2.1 | 10-137 |
| 589 | hCoV-19/South Korea/GJ-HERI-A2365/2022 | EPI\_ISL\_17698747 | BQ.1.2 | 10-138 |
| 590 | hCoV-19/South Korea/GJ-HERI-A2366/2022 | EPI\_ISL\_17698748 | BQ.1.1 | 10-139 |
| 591 | hCoV-19/South Korea/GJ-HERI-A2393/2022 | EPI\_ISL\_17698775 | BQ.1.1.17 | 10-140 |
| 592 | hCoV-19/South Korea/GJ-HERI-A2416/2022 | EPI\_ISL\_17698802 | XBB.1 | 11-1 |
| 593 | hCoV-19/South Korea/GJ-HERI-A2417/2022 | EPI\_ISL\_17698803 | XBB | 11-2 |
| 594 | hCoV-19/South Korea/GJ-HERI-A2418/2022 | EPI\_ISL\_17698804 | XBB.1 | 11-3 |
| 595 | hCoV-19/South Korea/GJ-HERI-A2420/2022 | EPI\_ISL\_17698806 | XBB.1 | 11-4 |
| 596 | hCoV-19/South Korea/GJ-HERI-A2423/2022 | EPI\_ISL\_17698809 | XBB.1 | 11-5 |

Supplementary Materials: Table S1: Table of 61 amino acid mutations identified in all 86 sequences of B.1.619.1

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| --- | --- | --- |
| Gene | Mutation Type (Amino acid change) | |
|  | Common mutations | Different mutations |
| *ORF1ab* | A2123V, E2607K, S3675del, G3676del, F3677del, M3752I, K3929R, P4715L | P380S, F548S, T1597I, D1885Y, I2010M, H2092Y, T2152A, S2193F, M2259I, K2511N, T2967L, A3454T, L3829F, E4097G, V5422F, D5528Y, P5624L, L6102F, A6199S, V6579F, S6739L, T6854I |
| *S* | I210T, N440K, E484K, D614G, D936N,  S939F, T1027I | T20I, T1009I, D1199H, E1207D, C1236F |
| *ORF3a* | - | W69L, L85F, V256fs |
| *M* | I82T | - |
| *ORF7a* | E22D | V29L, P34L, G38V, G42S |
| *ORF8* | - | C25F, I121fs |
| *N* | P13L, S201I, T205I | S78D, T135I, A152S, P199S, L221F |