

Table S2. Amino acid changes identified in the Sicilian dataset of hRSV-A protein G gene sequences, according to the surveillance season. Within each season, cells shaded by pin color mean codon changes observed at low frequency (30% - 50%), whereas cells highlighted by violet color refer to codon changes observed at high frequency (>50%) Deduced amino acid changes and position are defined in comparison with the ON1 prototype strain ON67-1210A (GenBank accession number: JN257693).

| hRSV-A | | SURVEILLANCE SEASON | | | | | | | |
|-------------|---|---------------------|---------|---------|---------|---------|---------|---------|---------|
| AA position | | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
| 7 | Q | | | R | L | | | | |
| 9 | T | | | A | | | | | |
| 26 | I | T | | | | | | | |
| 57 | A | | | | | | | V | V |
| 67 | H | N | | | Q | N | | | |
| 69 | V | | | | | F | | | |
| 71 | L | P | | | | P | | | |
| 78 | D | N | | | | | | | |
| 80 | T | | A | | | | | | M |
| 82 | Q | | | | | | | R | |
| 86 | T | | | | I | | | | |
| 93 | Q | L | | | | | | | |
| 98 | G | | E | | | | | | |
| 99 | I | T | | | | | | | |
| 100 | S | N | | | | | | | |
| 101 | F | | | | | L | | S | S |
| 102 | S | F/T | F | | | F | | | |
| 106 | G | | E | | E | | | | |
| 107 | T | | | A | | | | | |
| 108 | T | | | | | I | | | |
| 111 | S | P | F | | | P | | | |
| 113 | T | | | | I | I | | I | I |
| 114 | I | | | T | | | | | |
| 115 | L | P | P | | | | | | |
| 120 | P | | | | | | | | L |
| 128 | S | | P/T | | | | | | |
| 130 | T | | I | | I | | | | |
| 131 | V | | | | D | D/I | | D | D |
| 132 | K | E | | | | | | | |
| 133 | I | | T | | | V | | | |
| 134 | K | I | I | I | I | I | | | |
| 135 | N | | K | | | | | T | |
| 137 | T | | | A | | A | | | |

| hRSV-A | | SURVEILLANCE SEASON | | | | | | | |
|-------------|---|---------------------|---------|---------|---------|---------|---------|---------|---------|
| AA position | | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
| 140 | Q | | | | | | | | R |
| 142 | L | | S | | S | S | | | S |
| 144 | S | | | | | I | | | |
| 146 | P | T | | | | S | | L | S |
| 147 | T | | I | | | | | | |
| 149 | K | | | | R | | | | |
| 151 | R | H | | | H | | | H | H |
| 152 | Q | | | | | | | | K |
| 154 | K | R | | | | | | | |
| 161 | N | | | | | D | | | |
| 163 | F | | L | | | | | | |
| 173 | C | W | | | | | | | |
| 178 | N | | D | | G | G | | G | G |
| 193 | K | | R | | | | | | |
| 200 | T | | | I/P | P | | | | |
| 206 | P | | Q | Q | | Q | | Q | |
| 209 | K | | R | | | R | | R | R |
| 210 | T | | I | | | S | | | |
| 214 | D | | E | | | | | | |
| 215 | P | | | L | L/S | | | | |
| 216 | K | N/R | N | | N | N | | | |
| 222 | P | L | | | | | | | L |
| 224 | E | G | | | K | V | | | V |
| 225 | V | A | A | | A | | | A | A |
| 226 | L | | | F | | P | | F | |
| 227 | T | | | I | | | | | |
| 230 | P | T | | | | | | T | T |
| 231 | T | A | | | | | | | |
| 232 | G | | R | | R | | | | |
| 234 | P | | | | | L | | | L |
| 235 | T | | | | | A | | | |
| 239 | T | | A | | | | | | |
| 240 | K | | | | | R | | | E |
| 241 | T | | P | | | | | | |
| 243 | I | S | S | S | S | S | | | |
| 245 | T | | | | | | | | A |
| 247 | L | Q | | | P | P | | | P |
| 248 | L | | I | I | | I | | I | I |

| hRSV-A | | SURVEILLANCE SEASON | | | | | | | |
|-------------|---|---------------------|---------|---------|---------|---------|---------|---------|---------|
| AA position | | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
| 249 | T | | | | N | | | | |
| 250 | S | | | | | | | F | F |
| 253 | K | | R | | | | | | |
| 254 | G | | | | | R | | | E |
| 255 | N | | | D | D/S | | | | |
| 256 | P | | S | | | | | | |
| 257 | E | K | | | | | | | |
| 258 | H | | Y | | Q | Q | | Q | Q |
| 262 | E | K | K | K | K | K | | | |
| 263 | E | G | | | | G | | K | K |
| 265 | L | I | | | F | F | | | |
| 266 | H | | | | L | L | | L | L |
| 267 | S | | | L | | | | | L |
| 270 | S | F | Y | | | P | | | |
| 271 | E | K | K | | D | K | | | K |
| 272 | G | | | | S | | | | S |
| 273 | Y | S | H | H | H | H | | | H |
| 274 | L | P | P | P | P | P | | P | P |
| 275 | S | | G/N | N | | | | | |
| 276 | P | S | | | | Q | | | |
| 278 | Q | L | | | | | | | |
| 279 | V | | | I | I | | | | |
| 280 | Y | H | | H | | H | | | H |
| 284 | G | | D/S | | | | | | D |
| 285 | Q | | R | | | | | | |
| 287 | E | | G/K | K | | D | | | |
| 289 | L | | P | | P | | | | |
| 291 | S | | | | | L | | | |
| 294 | S | | Y | | | P | | | |
| 295 | E | K | K | V | G | | | | |
| 296 | G | | S | | | | | | S |
| 298 | L | P | P | P | P | P | | P | P |
| 299 | S | I | | | | | | | |
| 300 | P | S | S | | | | | | |
| 303 | V | | A | A | I | A | | A | A |
| 304 | Y | | H | H | H | H | | H | H |
| 306 | T | | I | | | | | | |
| 308 | E | K | K | | | | | | |

| hRSV-A | | SURVEILLANCE SEASON | | | | | | | |
|-------------|---|---------------------|---------|---------|---------|---------|---------|---------|---------|
| AA position | | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
| 310 | L | P | P | P | P | P | | P | P |
| 311 | S | | | | | P | | | P |
| 313 | S | | | | | | | F | |
| 314 | L | P | P | | | P | | | P |
| 317 | S | | | | | | | | F |
| 319 | T | A | I | I | | S | | I | I |
| 320 | T | I | A/K | A | A | A | | A | A |