**Table S2.** Variants noted in amino acid sequence alignments of H1N1pdm clinical isolates.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **M1** | **HA1** |  |  |  |
| **A.A. Residue** | **30** | **39** | **83** | **83** | **84** | **97** | **116** | **121** | **137** | **147** | **183** | **186** | **199** | **200** | **203** |
| **A.A. Change** | **S🡪G** | **G🡪E** | **S🡪P** | **S🡪F** | **S🡪N** | **D🡪N** | **I🡪M** | **S🡪G** | **P🡪T** | **N🡪S** | **S🡪P** | **A🡪T** | **V🡪A** | **F🡪L** | **T🡪S** |
| CA/07 | A | G | **C** | C | G | G | A | **A** | C | A | T | G | T | T | **T** |
| NY/18 | A | G | T | C | G | G | A | A | C | A | T | G | T | T | A |
| NL/602 | A | G | T | C | G | G | A | A | C | A | T | G | T | T | **T** |
| KY/80 | A | G | T | C | G | G | A | **G** | C | A | T | G | T | T | A |
| KY/96 | A | G | T | C | G | G | A | A | C | A | T | G | T | T | **T** |
| KY/99 | A | G | T | C | G | G | **G** | A | C | A | T | G | **C** | T | A |
| KY/104 | A | G | T | C | G | **A** | A | A | C | A | T | G | T | T | A |
| KY/110 | A | **A** | T | C | G | G | A | A | **A** | A | T | G | T | T | A |
| KY/136/E | A | G | T | **T** | G | G | A | A | C | A | T | G | T | T | A |
| KY/180/E | **G** | G | **C** | C | **A** | G | A | A | C | A | **C** | **A** | T | T | A |
| KY/180/M | NA | G | **C** | C | **A** | G | A | A | C | **G** | **C** | **A** | T | T | A |
| KY/190 | NA | G | **C** | C | **A** | G | A | A | C | **G** | T | G | T | **C** | A |
|  | **HA1** | **HA2** | **PA** |  |
| **A.A. Residue** | **222** | **223** | **234** | **293** | **321** | **374** | **440** | **499** | **14** | **387** | **465** | **471** | **538** | **581** | **610** |
| **A.A. Change** | **D🡪G** | **Q🡪R** | **V🡪I** | **Q🡪H** | **V🡪I** | **E🡪K** | **S🡪L** | **E🡪K** | **V🡪I** | **V🡪I** | **I🡪T** | **N🡪S** | **E🡪K** | **M🡪L** | **E🡪D** |
| CA/07 | A | A | G | G | **A** | G | C | G | G | G | T | A | G | **C** | A |
| NY/18 | A | **R** | G | G | G | G | C | G | G | G | T | A | G | A | A |
| NL/602 | A | A | G | G | G | G | C | G | G | G | T | A | G | **C** | A |
| KY/80 | A | A | G | G | **A** | G | C | G | G | G | T | A | G | A | A |
| KY/96 | A | A | G | **T** | G | G | C | **A** | G | **A** | T | A | G | A | A |
| KY/99 | A | A | G | G | G | G | C | G | G | G | T | **G** | G | A | A |
| KY/104 | A | A | G | G | G | **A** | C | G | G | G | T | A | **A** | A | A |
| KY/110 | A | A | G | G | G | G | C | G | NA | NA | NA | NA | NA | A | NA |
| KY/136/E | A | A | **A** | G | G | G | C | G | G | G | **C** | A | G | A | A |
| KY/180/E | **G** | A | G | G | G | **A** | C | G | **A** | G | T | A | G | A | **T** |
| KY/180/M | **G** | A | G | G | G | **A** | C | G | NA | NA | NA | NA | NA | NA | NA |
| KY/190 | A | A | G | G | G | **A** | **T** | G | NA | NA | NA | NA | NA | NA | NA |
|  | **PA** |  | **PA-X** |  | **PB1** | **PB2** |
| **A.A. Residue** | **647** | **654** | **716** | **14** | **196** | **215** | **83** | **563** | **662** | **736** | **33** | **176** | **183** | **340** | **584** |
| **A.A. Change** | **N🡪D** | **Q🡪E** | **K🡪Q** | **V🡪I** | **E🡪G** | **P🡪Q** | **A🡪G** | **R🡪K** | **T🡪N** | **K🡪G** | **K🡪R** | **I🡪T** | **L🡪M** | **K🡪N** | **V🡪I** |
| CA/07 | A | C | A | G | **G** | C | C | G | C | A | A | T | C | A | G |
| NY/18 | A | C | A | G | A | C | C | G | C | A | A | T | C | A | G |
| NL/602 | A | C | A | G | A | C | C | G | C | A | A | T | C | A | G |
| KY/80 | A | C | A | G | A | C | C | G | C | A | A | T | C | A | G |
| KY/96 | A | C | A | G | A | **A** | C | G | C | A | **G** | T | **A** | A | G |
| KY/99 | **G** | **S** | A | G | A | C | C | G | C | A | A | T | C | A | G |
| KY/104 | A | C | A | G | A | C | C | **A** | C | A | A | T | C | A | G |
| KY/110 | NA | NA | NA | G | A | C | C | G | **A** | A | A | **C** | C | A | G |
| KY/136/E | A | C | A | G | A | C | **G** | G | C | A | A | T | C | **T** | G |
| KY/180/E | A | C | **C** | **A** | A | C | C | G | C | **G** | A | T | C | A | **A** |
|  | **NA** | **NP** | **NS1** |  |
| **A.A. Residue** | **79** | **106** | **108** | **150** | **220** | **248** | **396** | **407** | **100** | **181** | **373** | **112** | **123** | **154** |
| **A.A. Change** | **S🡪P** | **I🡪V** | **I🡪V** | **K🡪R** | **R🡪K** | **D🡪N** | **I🡪K** | **V🡪I** | **I🡪V** | **A🡪D** | **T🡪I** | **I🡪M** | **V🡪I** | **G🡪R** |
| CA/07 | T | **G** | A | A | G | **A** | T | G | **G** | C | C | A | G | G |
| NY/18 | T | A | A | A | G | G | T | G | A | C | C | A | G | G |
| NL/602 | T | A | **G** | A | G | **A** | T | **A** | **G** | C | **T** | A | G | G |
| KY/80 | T | A | A | A | G | G | T | G | A | C | C | A | G | G |
| KY/96 | **C** | A | A | A | G | G | **A** | G | A | C | C | A | **A** | G |
| KY/99 | T | A | A | A | G | G | T | G | A | C | C | A | G | G |
| KY/104 | T | A | A | A | G | G | T | G | A | C | C | A | G | G |
| KY/110 | T | A | A | A | G | G | T | G | A | C | C | A | G | **A** |
| KY/136/E | T | A | A | **G** | G | G | T | G | A | **A** | C | **G** | G | G |
| KY/180/E | T | A | A | A | **A** | G | T | G | A | C | C | A | G | G |

\*NS = not yet sequenced; for KY/190 only the HA gene has been sequenced.