

A138S H156R H156Q T160K G186V L194P T203I S219Y S219F D225G N246H (0.06) (0.04) (0.04) (0.15) (0.25) (0.34) (0.06) (0.04) (0.06) (0.1) (0.03) HA1 mutation (overall frequency in egg-passaged viruses)