

Product Data Sheet

□ Cat # RP-642 Recombinant Hemagglutinin-Influenza A Virus H3N2 New York 55/04 (HA protein full length, Sf9 cells) **Size:** □ 2 ug

Influenza A virus subtype H3N2 (also H3N2) is a subtype of viruses that cause influenza (flu). H3N2 Viruses can infect birds and mammals. In birds, humans, and pigs, the virus has mutated into many strains. H3N2 is increasingly abundant in seasonal influenza, which kills an estimated 36,000 people in the United States each year. H3N2 name derives from the forms of the two kinds of proteins on the surface of its coat, hemagglutinin(H) and neuraminidase(N). H3N2 exchanges genes for internal proteins with other influenza subtypes. H3N2 has tended to dominate in prevalence over H1N1, H1N2, and influenza B. H3N2 strain descended from H2N2 by antigenic shift, in which genes from multiple subtypes re-assorted to form a new virus. Both the H2N2 and H3N2 strains contained genes from avian influenza viruses.

Seasonal influenza kills an estimated 36,000 people in the United States each year. Flu vaccines are based on predicting which mutants of H1N1, H3N2, H1N2, and influenza B will proliferate in the next season. Separate vaccines are developed for the northern and southern hemispheres in preparation for their annual epidemics. In the tropics, influenza shows no clear seasonality. In the past ten years, H3N2 has tended to dominate in prevalence over H1N1, H1N2, and influenza B. Measured resistance to the standard antiviral drugs amantadine and rimantadine in H3N2 has increased from 1% in 1994 to 12% in 2003 to 91% in 2005. Seasonal H3N2 flu is a human flu from H3N2 that is slightly different from one of last year's flu season H3N2 variants. Seasonal influenza viruses flow out of overlapping epidemics in East and Southeast Asia, then trickle around the globe before dying off. Identifying the source of the viruses allows global health officials to better predict which viruses are most likely to cause the most

disease over the next year. An analysis of 13,000 samples of influenza A/H3N2 virus that were collected across six continents from 2002 to 2007 by the WHO's Global Influenza Surveillance Network showed that newly emerging strains of H3N2 appeared in East and Southeast Asian countries about 6 to 9 months earlier than anywhere else. The strains generally reached Australia and New Zealand next, followed by North America and Europe. The new variants typically reached South America after an additional 6 to 9 months, the group reported.

Description:

Recombinant Full-Length H3N2 A/New York/55/04 is glycosylated with N-linked sugars, produced using baculovirus vectors in insect cells and its Mw is 70,000 dalton (purity >90%). It is supplied in a buffer containing 30mM Sodium phosphate, pH 7.4 and 500mM NaCl in solution of powder forms. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage

Suggested Applications

Western-Blot 0.1µg -1µg per strip
ELISA 1µg/Well.

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

References:

Rev. 91028A