

Recombinant Influenza A [A/Guinea Fowl/Hong Kong/WF10/99 (H9N2)] Hemagglutinin 1 (HA1), His-tagged

Cat. No. INF-435 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

This Influenza virus hemagglutinin 1 protein is derived from the HA sequence of the A/Guinea fowl/Hong Kong/WF10/99 (H9N2) strain, (Accession # Q80KD9), expressing Asp19-Arg338, and is fused with a polyhistidine tag at the C-terminus. The total calculated MW is 37.5 kDa. The influenza virus hemagglutinin protein is expressed in HEK293 cells, and DTT-reduced protein migrates as a band of 50-66 kDa.

Tag

His

Background

Influenza, commonly known as "the flu", is an infectious disease of birds and mammals caused by RNA viruses of the family Orthomyxoviridae, the influenza viruses. The virus is divided into three main types (Influenza virus A, Influenza virus B, and Influenza virus C), which are distinguished by differences in two major internal proteins (hemagglutinin (HA) and neuraminidase (NA), which are the most important targets for the immune system. The type A viruses are the most virulent human pathogens among the three influenza types and cause the most severe disease. Influenza virus hemagglutinin (HA) is a trimer of identical subunits, each of which contains two polypeptides that result from proteolytic cleavage of a single precursor. The two polypeptides are designated HA1 and HA2. The HA2 monomer is a long helical chain, anchored into the membrane, and is "topped" by a "globule" of HA1. Cleavage of the precursor is essential for activation of membrane fusion potential and hence infectivity. For HAs of most subtypes, the site of cleavage is a single arginine residue, and cleavage occurs extracellularly by an as yet unidentified enzyme.

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However, some members of the H5 and H7 subtypes have acquired a series of basic residues at the cleavage site, which are recognized by an intracellular subtilisin-like enzyme. In these cases, cleavage is efficient, virus infectivity is high, and the viruses are highly pathogenic. The avian H5 influenza, which continues to spread throughout the world, excluding the Americas, is caused by such viruses. The structure of HA has been reviewed by Gamblin and Skehel in 2010.

Purity	>90% by SDS-PAGE
Stability	Stability before reconstitution: At ambient temperature: 1 month At +4 centigrade: 12 months At <-20 centigrade: 24 months Stability after reconstitution: At -80 centigrade: 3 months
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Store lyophilised product at 4 centigrade for short term, or frozen at -20 centigrade - -80 centigrade for long term. Product is shipped at ambient temperature
Concentration	Dependent upon reconstitution volume.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease

GENE INFORMATION

Synonyms	Influenza A [A/Guinea Fowl/Hong Kong/WF10/99 (H9N2)] Hemagglutinin 1 (HA1)
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