

Recombinant Influenza A H7N7 HA1, His-tagged

Cat. No. H7N7-25I Lot. No. (See product label)

SPECIFICATION

Product Overview A DNA sequence encoding an N-terminal segment (Met 1-Arg 344) of Influenza A virus (A/chicken/Netherlands/1/03(H7N7)) hemagglutinin (AAR02639.1) , termed as HA1, was fused with a polyhistidine tag at the C-terminus

Species H7N7

Source Human Cells

ProteinLength 1-344 a.a.

Description

Hemagglutinin (HA) is a single-pass type I integral membrane glycoprotein from the influenza virus, and comprises over 80% of the envelope proteins present in the virus particle. In natural infection, inactive HA is matured into HA1 and HA2 outside the cell by one or more trypsin-like, arginine-specific endoprotease secreted by the bronchial epithelial cells. Binding of HA to sialic acid-containing receptors on the surface of its target cell brings about the attachment of the virus particle to the cell and forms an endosome. Low pH in endosomes induce an irreversible conformational change in HA2, releasing the hydrophobic portion "fusion peptide". After which, virus penetrates the cell and pours its contents including the RNA genome into the cytoplasm mediated by fusion of the endocytosed virus particle's own membrane and the endosomal membrane. Hemagglutinin plays a major role in the determination of host range restriction and virulence. HA is cleaved by trypsin which is restricted to lungs, and thus bud into lumen of lungs and are therefore usually pneumotropic. However, HAs of H5 and H7 pantropic avian viruses subtypes can be cleaved by furin

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	and subtilisin-type enzymes, allowing the virus to grow in other organs than lungs.
Predicted N Terminal	Asp 26
Form	Lyophilized from sterile PBS , pH 7.4
Molecular Mass	The recombinant HA1 subunit of Influenza A virus (A/chicken/Netherlands /1/03(H7N7)) hemagglutinin comprises 331 amino acids and has a calculated molecular mass of 36.4 kDa. It migrates as an approximately 47 KDa band in SDS-PAGE under reducing conditions due to glycosylation
Endotoxin	< 1.0 eu per µg of the protein as determined by the lal
Purity	>97 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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