

# Active Recombinant Influenza A Virus H7N7 HA, His-tagged

Cat. No. H7N7-22I Lot. No. (See product label)

## SPECIFICATION

**Product Overview** A DNA sequence encoding the extracellular domain of Influenza A virus ( A/Netherlands/219/03 (H7N7) ) ( AAR02640.1 ) hemagglutinin ( Met 8 - Phe 544 ) ( Native, HA1+HA2 ) was expressed, fused with a polyhistidine tag at the C-terminus.

**Species** H7N7

**Source** Insect Cells

**ProteinLength** 8-544 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

**Bio-activity** Measured in hemagglutination test using 1% chicken erythrocyte. The HA titer is 0.3-1.5 µg/ml for 1% CRBC.

**Molecular Mass** The secreted recombinant hemagglutinin of influenza A virus ( A/Netherlands/219/03 (H7N7) ) comprises 530 amino acids and has a predicted molecular mass of 59kDa as estimated in SDS-PAGE under reducing conditions.

**Endotoxin** < 1.0 eu per µg of the protein as determined by the lal

**Purity** >87% 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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