

Active Recombinant H5N1 HA, His-tagged

Cat. No. HA-437H Lot. No. (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the Influenza A virus (A/barnswallow/HongKong/D10-1161/2010(H5N1)) hemagglutinin (AGC13463.1) (Met1-Gln531) with cleavage site mutated (RRRRK →TET, HA1+HA2, uncleaved) was expressed with a C-terminal polyhistidine tag.
Species	H5N1
Source	Insect Cells
ProteinLength	Met1-Gln531
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. The HA is a trimer with a receptor binding pocket on the globular head of each monomer. 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.

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Form	Lyophilized from sterile PBS, pH7.4.
Bio-activity	1. Measured by its ability to bind with Neu5Aca2-3Galb1-4GlcNAcb-PAA-biotin (01-077) using the Octet RED System.2. Measured by its ability to agglutinate guinea pig red blood cells. HA titer is 2-8 ng/mL for 1% GRBC.
Molecular Mass	The recombinant hemagglutinin of Influenza A virus (A/barnswallow/HongKong/D10-1161/2010(H5N1)) comprises 524 amino acids and has a predicted molecular mass of 59.8 kDa. The apparent molecular mass of the protein is approximately 58.3 kDa in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 eu per µg of the protein as determined by the LAL method.
Purity	>95 % 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.
Reconstitution	Hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

Gene Name	HA?hemagglutinin [?Influenza A virus (A/goose/Guangdong/1/1996(H5N1))]
Official Symbol	HA
Synonyms	HA; hemagglutinin; HA1; HA2
Gene ID	3654620

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Protein Refseq	YP_308669
UniProt ID	Q9Q0U6
Chromosome Location	segment: segment 4

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