

# Recombinant Influenza A Virus Haemagglutinin, Brisbane, His-tagged

**Cat. No.** HA-728I    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

**Species** Influenza A Virus

**Source** HEK293

**ProteinLength** 1-528 a.a.

### ProductOverview

Recombinant Influenza A Virus haemagglutinin encoding the extracellular domain of Influenza A virus (A/Brisbane/59/2007 (H1N1)) (ACA28844.1) hemagglutinin (Met 1-Gln 528) (Native, HA1+HA2, uncleaved) was expressed with a C-terminal his tag. It was expressed in Human Cells (HEK293).

### 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 a 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

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                            |                                                                                                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | range restriction and virulence. Among the multiple influenza A virus subtypes, H1N1 is one of the three subtypes which mainly infects humans.                                                                                                                                  |
| <b>MolecularMass</b>       | The secreted recombinant hemagglutinin of Influenza A virus (A/Brisbane/59/2007 (H1N1)) comprises 522 amino acids with the predicted molecular mass of 59 kDa. As a result of glycosylation, it migrates as an approximately 70 kDa band in SDS-PAGE under reducing conditions. |
| <b>Purity</b>              | > 97%, as determined by SDS-PAGE.                                                                                                                                                                                                                                               |
| <b>Endotoxin</b>           | < 1.0 EU per 1µg cytokine as determined by the LAL method.                                                                                                                                                                                                                      |
| <b>Stability</b>           | Samples are stable for up to twelve months from date of receipt -70°C.                                                                                                                                                                                                          |
| <b>PredictedN Terminal</b> | Asp 18.                                                                                                                                                                                                                                                                         |
| <b>Formulation</b>         | Supplied as a 0.2µm filtered solution of PBS, pH7.4.                                                                                                                                                                                                                            |
| <b>Reconstitution</b>      | Follow the instructions on the vial. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                                                                                  |
| <b>Storage</b>             | Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted and be used as soon as possible. Avoid repeated freeze-thaw cycles.                                                                                                                 |

## GENE INFORMATION

|                  |                                                              |
|------------------|--------------------------------------------------------------|
| <b>Gene Name</b> | hemagglutinin [Influenza A virus (A/Brisbane/59/2007(H1N1))] |
| <b>Synonyms</b>  | HA; haemagglutinin                                           |

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