

# **Screening Libraries**

**Proteins** 

**Product** Data Sheet

# HA/Hemagglutinin Protein, H5N1 (H8PF45, HA1, HEK293, His)

Cat. No.: HY-P73980

Synonyms: HA; Hemagglutinin; HA/Hemagglutinin Protein, H5N1 (A/Thailand/1(KAN-1)/2004, HA1, HEK293,

Species: Virus

Source: **HEK293** 

Accession: H8PF45 (M1-E340)

Gene ID:

Molecular Weight: Approximately 38.1 kDa

## **PROPERTIES**

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

# **DESCRIPTION**

# Background

The HA protein, also known as Hemagglutinin Protein, plays a crucial role in the viral life cycle. It binds to cell surface receptors that contain sialic acid, facilitating the attachment of the virus particle to the host cell. This attachment leads to the internalization of the virion through either a clathrin-dependent endocytosis pathway or a clathrin- and caveolinindependent pathway. The HA protein is a Class I viral fusion protein, responsible for mediating the fusion of the membrane of the endocytosed virus particle with the endosomal membrane. This fusion event allows the virus to enter the cytoplasm of the cell. The low pH environment in the endosomes triggers an irreversible conformational change in the HA2 subunit of the protein, leading to the release of a fusion hydrophobic peptide. Multiple trimers of the HA protein are necessary to form a competent fusion pore. The HA protein's functions in receptor binding, viral internalization, fusion, and membrane penetration are critical for determining the host range restriction and virulence of the virus.

Caution: Product has not been fully validated for medical applications. For research use only.

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