

Product Data Sheet

HA1/Hemagglutinin Protein, H4N4 (Q0A4G1, HEK293, His)

Cat. No.:	HY-P76449
Synonyms:	Influenza A H4N4 (A/mallard duck/Alberta/299/1977) Hemagglutinin Protein (HA1 Subunit) (His)
Species:	Virus
Source:	HEK293
Accession:	Q0A4G1 (M1-R343)
Gene ID:	/
Molecular Weight:	Approximately 50 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm 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 $\mu\text{g}/\text{mL}$ in ddH_2O.
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 Hemagglutinin (HA) protein is central to the attachment of virus particles to host cells by binding to sialic acid- containing receptors on the cell surface. This interaction leads to virion internalization through either clathrin-dependent endocytosis or a clathrin- and caveolin-independent pathway. HA plays a pivotal role in determining host range restriction and virulence, functioning as a Class I viral fusion protein responsible for the penetration of the virus into the cell cytoplasm. Its mediation of the fusion between the membrane of the endocytosed virus particle and the endosomal membrane is essential for successful infection. The acidic environment in endosomes induces an irreversible conformational change in the HA2 subunit, releasing the fusion hydrophobic peptide. The formation of a competent fusion pore requires the cooperative action of several HA trimers, highlighting the intricate molecular processes orchestrated by HA during viral entry.

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

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