Neuraminidase/NA Protein, H5N1 (Biotinylated, HEK293, His)

Cat. No.:	HY-P77556
Synonyms:	Influenza A H5N1 (A/Thailand/1(KAN-1)/2004) Neuraminidase/NA Protein (His , Biotinylated)
Species:	Virus
Source:	HEK293
Accession:	Q6Q793 (H36-K449)
Gene ID:	/
Molecular Weight:	Approximately 55 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 μg/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 Neuraminidase (NA) protein plays a crucial role in viral dynamics by catalyzing the removal of terminal sialic acid residues from both viral and cellular glycoconjugates. During virus budding, NA cleaves off terminal sialic acids from the glycosylated hemagglutinin (HA), facilitating efficient virus release and aiding in the spread through the circulation by further removing sialic acids from the cell surface. These cleavages prevent self-aggregation and ensure the effective dissemination of the progeny virus between cells, preventing infection from being limited to a single replication round. Functioning as a receptor-destroying enzyme, NA cleaves terminal sialic acids from cellular receptors, potentially facilitating viral invasion of the upper airways by targeting sialic acid moieties on airway epithelial cell mucin. Its association with lipid rafts during intracellular transport suggests a role in the budding process, and it may additionally exert raft-independent effects on budding, contributing to host range restriction, replication, and virulence determination. The sialidase activity in late endosome/lysosome traffic appears to enhance virus replication.

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

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