

DESCRIPTION

Species Reactivity	Influenza A Virus H1N1
Specificity	Detects Influenza A Virus H1N1 Neuraminidase in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant Influenza A Virus H1N1 Neuraminidase Ser37-Lys469 Accession # AAF77036
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Influenza A Virus H1N1 Neuraminidase (Catalog # 4858-NM)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Influenza A Virus H1N1 Neuraminidase (Catalog # 4858-NM), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Neuraminidase (NA) and hemagglutinin (HA) are major membrane glycoproteins found on the surface of influenza virus. HA is a lectin that binds sialic acid on host cell membrane. NA is a sialic acid hydrolase that specifically clips off terminally located sialic acid on host cell surface. The two proteins are essential for the infectious cycle of the influenza virus. During initial infection, an influenza virus will hold onto an epithelial cell through HA-sialic acid interaction. At the end of an infectious cycle, the NA will cleave the sialic acid on the host cell membrane, releasing the formed viral particle from the HA-sialic acid bondage (1). The neuraminidase activity is also thought to help the virus penetrate mucus. Nine subtypes of NA have been identified, all of which are tetrameric and share a common structure consisting of a globular head, a thin stalk region, and a small hydrophobic region that anchors the protein in the virus membrane (2). The purified recombinant viral H1N1NA consists of amino acid residues 37 to 469 as deduced from the 1918 Spanish flu virus NA (A/Bervig_Mission/1/18) (3). It has a distinct N-glycan profile and is resistant to trypsin digestion (4).

References:

1. Palese, P. & Compans, R. W. (1976) *J. Gen. Virol.* **33**:159.
2. Colman, P. M. *et al.* (1983) *Nature* **303**:41.
3. Reid, A. (2000) *Proc. Natl. Acad. Sci. USA* **97**:6785.
4. Wu, Z.L. *et al.* (2009) *Biochem. Biophys. Res. Comm.* **379**:749.