

Influenza A Virus H1N1 NA

Catalog Number: 11058-V07B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

NA

Protein Construction:

A DNA sequence encoding the mature form of influenza A virus (A/California/04/2009 (H1N1)) neuraminidase (ACP41107.1) (His 36 - Lys 469) was fused with a polyhistidine tag at the N-terminus

Source: Influenza A Virus H1N1

Expression Host: Baculovirus

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio-activity:

Measured by its ability to cleave a fluorogenic substrate, 2'-(4-Methylumbelliferyl)- α -D-N-acetylneuraminic acid

The specific activity is 800-1200 pmoles/min/ μ g

Endotoxin:

< 1.0 EU per μ g protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

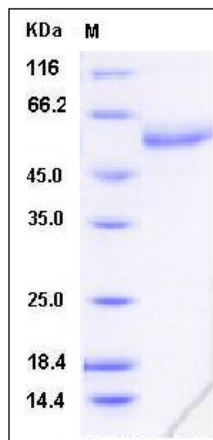
The recombinant influenza H1N1 virus neuraminidase (A/California/04 /2009 (H1N1)) comprises 450 amino acids with the predicted molecular mass of 50 kDa. The apparent molecular mass of the recombinant protein is approximately 55 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 7.4, 10 % gly

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

SDS-PAGE:



Usage Guide

Storage:

Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Neuraminidase (NA) and hemagglutinin (HA) are major membrane glycoproteins found on the surface of influenza virus. NA, also called sialidases, specifically catalyze the hydrolysis removal of terminal sialic acid residues from viral and cellular glycoconjugates. It is known that HA binds to the sialic acid-containing receptors on the surface of host cells during initial infection, and at the end of an infectious cycle, NA cleaves the HA-sialic acid bond from the newly formed virions and the host cell receptors during budding. NA thus is described as a receptor-destroying enzyme which facilitates virus release and efficient spread of the progeny virus from cell to cell. NA is a single-pass type II membrane protein which exists as a homotetramer, and the transmembrane domain is involved in lipid raft association during intracellular transport. NA is suggested to play a role in the determination of host range restriction on replication and virulence. Nine subtypes of NA have been identified, and subtypes N1 and N2 have been positively linked to epidemics in man.

References

1. Barman, S. and Nayak, D.P. 2000, J. Virol. 74: 6538-6545.
2. Colman, P.M. et al., 1983, Nature. 303: 41-44.
3. Suzuki, T. et al., 2005, J. Virol. 79: 11705-11715.
4. von, Itzstein, M. 2007, Nat. Rev. Drug. Discov. 6: 967-974.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>