

Influenza A H1N1 (A/Puerto Rico/8/34/Mount Sinai) Non-structural / NS1 Protein (His Tag)

Catalog Number: 40011-V07E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

NS1

Protein Construction:

A DNA sequence encoding the influenza A H1N1 Virus (A/Puerto Rico/8/34/Mount Sinai) NS1 protein (C8XP22) (Asp 2-Val 230) was expressed, with a polyhistidine tag at the N-terminus.

Source: H1N1

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant influenza A H1N1 Virus (A/Puerto Rico/8/34/Mount Sinai) NS1 protein comprises 240 amino acids and has a predicted molecular mass of 27.2 kDa. It migrates as an approximately 29 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 5% glycerol, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

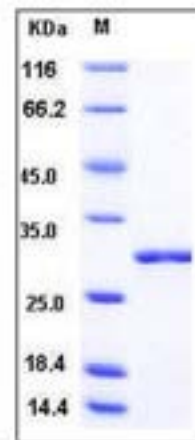
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The NS1 Influenza protein is created by the internal protein encoding, linear negative-sense, single stranded RNA, NS gene segment and which also codes for the nuclear export protein or NEP, formerly referred to as the NS2 protein, which mediates the export of vRNPs. The non-structural (NS1) protein is found in Influenza virus A, Influenza virus B and Influenza virus C. The non-structural (NS1) protein of the highly pathogenic avian H5N1 viruses circulating in poultry and waterfowl in Southeast Asia is currently believed to be responsible for the enhanced virulence of the strain. Non-structural (NS1) protein of influenza A viruses is a non-essential virulence factor that has multiple accessory functions during viral infection. The major role ascribed to NS1 has been its inhibition of host immune responses, especially the limitation of both interferon (IFN) production and the antiviral effects of IFN-induced proteins, such as dsRNA-dependent protein kinase R (PKR) and 2'5'-oligoadenylate synthetase (OAS)/RNase L. Non-structural (NS1) protein is a non-structural protein of the influenza A virus, which could only be expressed when cells are infected. The effect of NS1 protein on host cell is still not clear. Not only could NS1 remarkably affect metabolism, but it could also slow down cell proliferation through blocking cell cycle. Non-structural (NS1) protein may lead to the development of novel antiviral drugs, and the use of oncolytic influenza A viruses as potential anti-cancer agents.

References

1.Enami,M. et al., 1997, Nippon Rinsho. 55 (10):2605-9. 2.Bergmann,M. et al., 2000, J Virol. 74 (13):6203-6. 3.Hale,B.G. et al., 2008, J Gen Virol. 89 (Pt 10):2359-76.

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