

Recombinant Influenza A virus H7N9 NP, His-tagged

Cat. No. H7N9-211 Lot. No. (See product label)

SPECIFICATION

Product Overview A DNA sequence encoding the Influenza A virus (A/Shanghai/1/2013(H7N9)) nucleocapsid protein (Met1-Asn498) was expressed with a C-terminal polyhistidine tag.

Species H7N9

Source Insect Cells

ProteinLength 1-498 a.a.

Description This new H7N9 virus is an avian (bird) influenza (flu) virus. Influenza (flu) is a respiratory infection in mammals and birds. The virus is divided into three main types (Influenza A, Influenza B, and Influenza C). The influenza A genome contains 11 genes on eight pieces of RNA, encoding for 11 proteins: Hemagglutinin (HA), Neuraminidase (NA), Nucleoprotein (NP), M1, M2, NS1, NS2 (NEP), PA, PB1, PB1-F2 and PB2. Influenza A virus nucleoprotein (NP) forms homo-oligomers and multiple copies of NP wrap around genomic RNA, along with a trimeric polymerase making up ribonucleoprotein (RNP) complex. Nucleoprotein (NP) is composed of a head and a body domain and a tail loop / linker region. The head domain is more conserved than the body domain. Nucleoprotein (NP) oligomerization is mediated by the insertion of the non-polymorphic and structurally conserved tail loop of one NP molecule to a groove of another NP. The different form of Nucleoprotein (NP) oligomers is due to the flexibility of the polymorphic linkers that join the tail loop to the rest of the protein. The RNA binding property of NP is known to involve the protruding element and the

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	flexible basic loop between the head and body domains, both having high degree of primary sequence conservation.
Predicted N Terminal	Met
Form	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10% glycerol, pH 7.4.
Molecular Mass	The recombinant nucleocapsid protein of Influenza A virus (A/Shanghai/1/2013(H7N9)) comprises 509 amino acids and has a predicted molecular mass of 57.8 kDa. The apparent molecular mass of the protein is approximately 57 kDa in SDS-PAGE under reducing conditions.
AA Sequence	MASQGTKRSY EQMETGGERQ NATEIRASVG RMVSGIGRFY IQMCTELKLS DNEGRLIQNS ITIERMVLSA FDERRNRYLE EHPSAGKDPK KTG GPIYRRR DGKWWRELIL YDKEEIRRIW RQANNGEDAT AGLTHLMIWH SNLNDATYQR TRALVRTGMD PRMCSLMQGS TLP RRSGAAG AAVKGIGTMV MELIRMIKRG INDRNFWRGE NGRRTRIAYE RMCNILKGKF QTAAQRAMMD QVRESRNPNG AEIEDLIFLA RSALILRGSV AHKSCLPACV YGLAVASGYD FEREGYSLVG IDPFLLQNS QVFSLRPNE NPAHKSQVLW MACHSAAFED LRVSSFIRGT RMVPRGQLST RGVQIASNEN MEAMDSNTLE LRSRYWAIRT RSGGNTNQQR ASAGQVSVQP TFSVQRNLPF ERATIMAAFT GNTEGRTSDM RTEIIRMMES ARPEDVSFQG RGVFELSDEK ATNPVPSFD MNNEGSYFFG DNAEEYDNAH HHHHHHHHH
Endotoxin	< 1.0 eu per µg of the protein as determined by the lal
Purity	>95 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70°C

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Storage

Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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