

Recombinant Influenza A virus H7N9 M1, His-tagged

Cat. No. H7N9-19I **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the Influenza A virus (A/Anhui/1/2013(H7N9)) (AEO52383.1) Matrix protein 1 (Met1-Lys252) was expressed with a C-terminal polyhistidine tag.
Species	H7N9
Source	E.coli
ProteinLength	1-252 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. Matrix protein 1 is a peripheral membrane, cytoplasmic side and host nucleus protein which belongs to the influenza viruses Matrix protein M1 family. Matrix protein 1 plays critical roles in virus replication, from virus entry and uncoating to assembly and budding of the virus particle. M1 binding to ribonucleocapsids (RNPs) in nucleus seems to inhibit viral transcription. Interaction of viral NEP with M1-RNP is thought to promote nuclear export of the complex, which is targeted to the virion assembly site at the apical plasma membrane in polarized epithelial cells. Interactions with NA and HA may bring M1, a non-raft-associated protein, into lipid rafts. Forms a continuous shell on the inner side of the lipid bilayer in virion, where it

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	binds the RNP. During virus entry into cell, the M2 ion channel acidifies the internal virion core, inducing M1 dissociation from the RNP. M1-free RNPs are transported to the nucleus, where viral transcription and replication can take place.
Predicted N Terminal	Met
Form	Lyophilized from sterile 20 mM tris, 0.5 mM EDTA, 5% glycerol, 50 mM NaCl, pH 7.6.
Molecular Mass	The recombinant Matrix protein 1 of Influenza A virus (A/Anhui/1/2013(H7N9)) comprises 258 amino acids and has a predicted molecular mass of 28.5 kDa. The apparent molecular mass of the protein is approximately 26-30 kDa in SDS-PAGE under reducing conditions.
AA Sequence	MSLLTEVETY VLSIIPSGPL KAEIAQRLED VFAGKNADLE ALMEWIKTRP ILSPLTKGIL GFVFTLTVPS ERGLQRRRFV QNALNGNGDP NNMDKAVKLY KKLKREMTFH GAKEVALSYS TGALASCMGL IYNRMGTVTA EGALGLVCAT CEQIADAQHR SHRQMATTN PLIRHENRMV LASTTAKAME QMAGSSEQAA EAMEVASQAR QMVQAMRTVG THPNSSTGLK DDLIENLQAY QNRMGVQLQR FKHHHHHH
Purity	>85 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
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.