

## 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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA