Matrix protein 2 Protein, Influenza A virus (Cell-Free, His, Myc)

Cat. No.:	HY-P702368
Synonyms:	Matrix protein 2; Proton channel protein M2
Species:	Virus
Source:	E. coli Cell-free
Accession:	A0A2R3YRM7 (M1-E97)
Gene ID:	/
Molecular Weight:	18.6 kDa

PROPERTIES

AA Sequence	M S L L T E V E T P T R S G W E C R C S D S S D P L V I A A N I I G I L H L I L W I T D R L F F K C I Y R R F K Y G L K R G P S T E G V P E S M R E E Y Q Q E Q Q S A V D V D D G H F V N I E L E
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Matrix protein 2 (M2) plays a pivotal role in the influenza virus life cycle, as it forms a proton-selective ion channel crucial for efficient viral genome release during virus entry. Following virion attachment to the cell surface, endocytosis is initiated, and the acidification of the endosome activates the M2 ion channel. This channel facilitates the influx of protons into the virion interior, disrupting interactions among the viral ribonucleoprotein (RNP), matrix protein 1 (M1), and lipid bilayers. This disruption is instrumental in freeing the viral genome from interactions with viral proteins, enabling RNA segments to migrate to the host cell nucleus, where influenza virus RNA transcription and replication occur. Additionally, M2 plays a role in the secretory pathway of viral proteins by modulating intravesicular pH in acidic compartments, such as the trans-Golgi network. This prevents premature switching of newly formed hemagglutinin to the fusion-active conformation. Notably, M2

	is inhibited by antiviral drugs like amantadine and rimantadine, resulting in the incapacity of viral uncoating. However, the emergence of amantadine-resistant variants is a common occurrence and typically rapid.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA