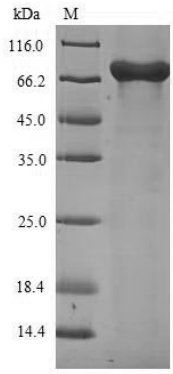
Recombinant Influenza A virus Nucleoprotein (NP)

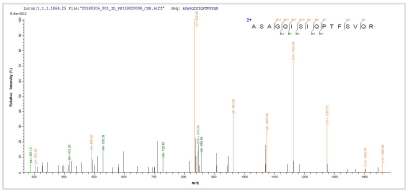
Product Code	CSB-EP323566IEC
Relevance	Encapsidates the negative strand viral RNA, protecting it from nucleases. The encapsidated genomic RNA is termed the ribonucleoprotein (RNP) and serves as template for transcription and replication. The RNP needs to be localized in the nucleus to start an infectious cycle, but is too large to diffuse through the nuclear pore complex. NP comprises at least 2 nuclear localization signals and is responsible of the active RNP import into the nucleus through the cellular importin alpha/beta pathway. Later in the infection, nucleus export of RNP are mediated through viral proteins NEP interacting with M1 which binds nucleoproteins. It is possible that the nucleoprotein binds directly exportin-1 (XPO1) and plays an active role in RNP nuclear export. M1 interaction with RNP seems to hide nucleoprotein's nuclear localization signals. Soon after a virion infects a new cell, M1 dissociates from the RNP under acidification of the virion driven by M2 protein. Dissociation of M1 from RNP unmask nucleoprotein's nuclear localization signals, targeting the RNP to the nucleus (By similarity).
Abbreviation	Recombinant Influenza A virus NP protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P18071
Alias	Nucleocapsid protein Short name: Protein N
Product Type	Recombinant Protein
Immunogen Species	Influenza A virus (strain A/Fort Warren/1/1950 H1N1)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MASQGTKRSYEQMETDGDRQNATEIRASVGKMIDGIGRFYIQMCTELKLSDYE GRLIQNSLTIERMVLSAFDERRNKYLEEHPSAGKDPKKTGGPIYKRVDGKWMR ELVLYDKEEIRRIWRQANNGDDATAGLTHMMIWHSNLNDTTYQRTRALVRTG MDPRMCSLMQGSTLPRRSGAAGAAVKGVGTMVMELIRMIKRGINDRNFWRG ENGRKTRIAYERMCNILKGKFQTAAQRAMMDQVRESRNPGNAEIEDLIFLARS ALILRGSVAHKSCLPACVYGPAVASGYDFEKEGYSLVGIDPFKLLQNSQVYSLI RPNENPAHKSQLVWMACNSAAFEDLRVSSFIRGTKVIPRGKLSTRGVQIASNE NMDTMGSSTLELRSRYWAIRTRSGGNTNQQRASAGQISIQPTFSVQRNLPFD KTTIMAAFTGNAEGRTSDMRAEIIRMMESARPEEVSFQGRGVFELSDERAANP IVPSFDMSNEGSYFFGDNAEEYDN
Research Area	Microbiology
Source	E.coli
Target Names	NP
Protein Names	Recommended name: Nucleoprotein Alternative name(s): Nucleocapsid protein Short name= Protein N

Expression Region	1-498aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	72.1kDa
Protein Length	Full Length

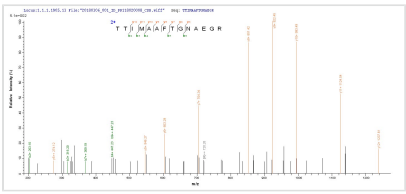
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP323566IEC could indicate that this peptide derived from E.coli-expressed Influenza A virus (strain A/Fort Warren/1/1950 H1N1) NP.



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Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.