

Recombinant Influenza A virus Nucleoprotein(NP)

Catalog Number: RPC22472

Product Name	Recombinant Influenza A virus Nucleoprotein(NP)
Catalog Number	RPC22472
Expression host	<i>E.coli</i>
Product Info	N-terminal 6xHis-SUMO-tagged
Buffer	Lyophilized from a 0.2 µm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0. The volume before lyophilization is 715µl/vial.
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
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 host 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 that are responsible for the active RNP import into the nucleus through cellular importin alpha/beta pathway. Later in the infection, nuclear export of RNPs are mediated through viral proteins NEP interacting with M1 which binds nucleoproteins. It is possible that nucleoprotein binds directly host exportin-1/XPO1 and plays an active role in RNPs 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 unmasks nucleoprotein's nuclear localization signals, targeting the RNP to the nucleus.
AA sequence	MASQGTKRSYEQMETDGERQNATEIRASVGKMGIDGIGRFYIQMCTELKLSDYEG RLIQNSLTIERMVLSAFDERRNKYLEEHPSAGKDPKKTGGPIYKRVDGKWMREL VLYDKEEIRRIWRQANNGDDATAGLTHMMIWHNSLNDTTYQRTRALVRTGMDP RMCSLMQGSTLPRRSGAAGAAVKGVGTMMVLMELIRMIKRGINDRNFWRGENGR KTRSAYERMCNILKGKFQTAARAMMDQVRESRNPNGNAEIEDLIFLARSALILR GSAVHKSCLPACVYGPVAVASGYDFEKEGYSLVGIDPFKLLQNSQVYSLIRPNENPA HKSQVLVWMA CNSAAFEDLRVLSFIRGTKVSPRGKLSTRGVQIASNENMDAMESS TLELR SRYWAIRTRSGGNTNQQRASAGQISVQPAFSVQRNLPFDKPTIMAAFTGN

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	TEGRTSDMRAEIIRMMEGAKPEEMSFQGRGVFELSDEKAANPIVPSFDMSNEGS YFFGDNAEEYDN
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