

Nucleocapsid/NP Protein, H7N9 (R4NE06, sf9, His)

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| Cat. No.: | HY-P75886 |
| Synonyms: | Influenza A H7N9 (A/Shanghai/2/2013) Nucleocapsid / NP Protein (His) |
| Species: | Virus |
| Source: | Sf9 insect cells |
| Accession: | R4NE06 (M1-N498) |
| Gene ID: | 23104229 |
| Molecular Weight: | Approximately 57 kDa |

PROPERTIES

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| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. |
| Endotoxin Level | <1 EU/ μ g, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. |
| 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

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| Background | Nucleoprotein (NP) plays a pivotal role in the influenza virus life cycle by encapsidating the negative-strand viral RNA, forming the ribonucleoprotein (RNP) complex that serves as a template for transcription and replication. Facilitating the initiation of the infectious cycle requires the active transport of the RNP into the host cell nucleus, a task accomplished by NP's nuclear localization signals through the cellular importin alpha/beta pathway. Later in infection, the nuclear export of RNPs involves interactions with viral proteins, including NEP and M1, possibly in association with host exportin-1/XPO1. Notably, NP homomultimerizes to create the nucleocapsid, and its dynamic interplay with M1, governed by acidification driven by the M2 protein, regulates the exposure of NP's nuclear localization signals, facilitating the targeted transport of the RNP to the nucleus. Furthermore, NP forms essential contacts with viral genomic RNA, relying on a combination of electrostatic interactions and planar interactions to mediate protein-RNA binding. |
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Caution: Product has not been fully validated for medical applications. For research use only.

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