Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag

Catalog # NP1-V52H3

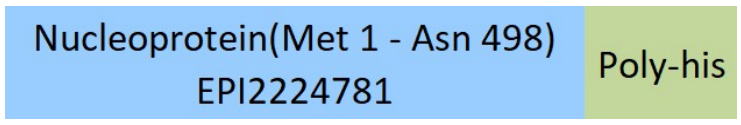
Synonym

Nucleocapsid protein,NP,Protein N

Source

Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag (NP1-V52H3) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Asn 498 (Accession # EPI2224781, GISAID).

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 58.1 kDa. The protein migrates as 60-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 0.2 M Arginine, PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

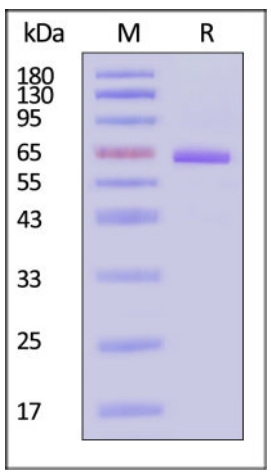
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

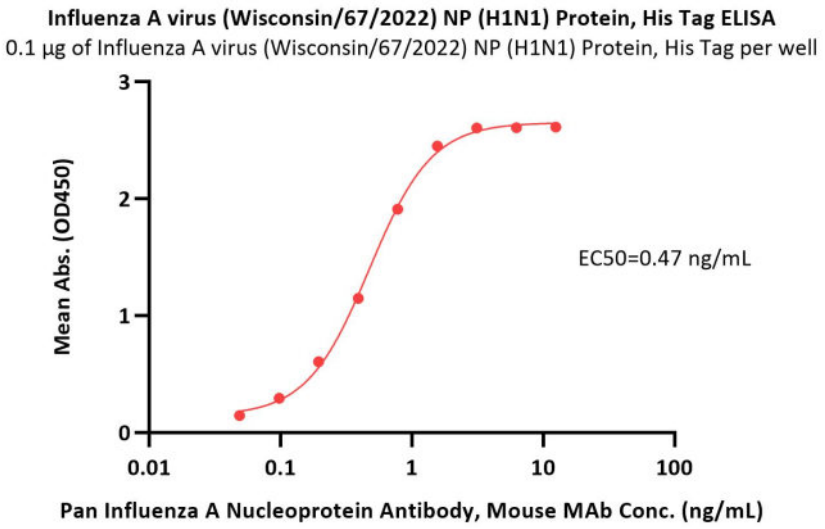
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

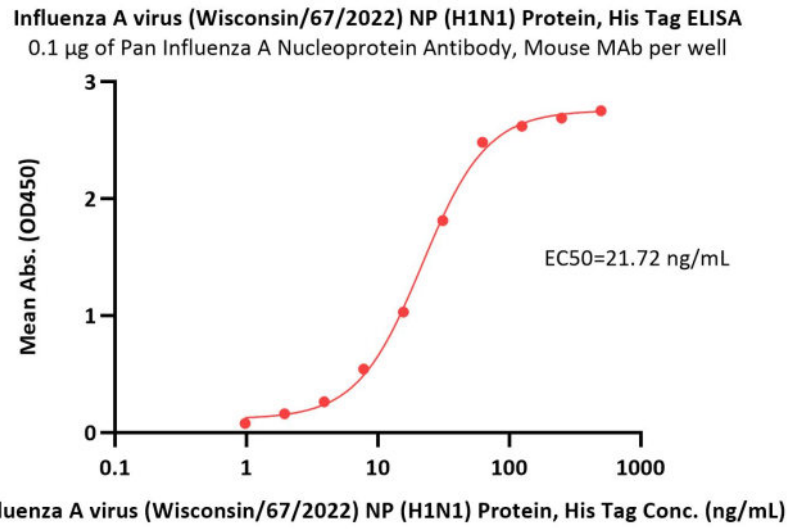


Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA

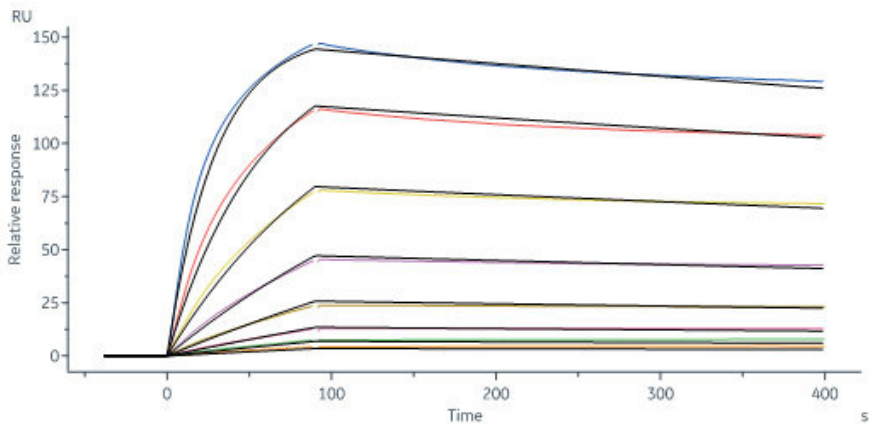


Immobilized Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag (Cat. No. NP1-V52H3) at 1 μg/mL (100 μL/well) can bind Pan Influenza A Nucleoprotein Antibody, Mouse MAb with a linear range of 0.05-1.56 ng/mL (QC tested).



Immobilized Pan Influenza A Nucleoprotein Antibody, Mouse MAb at 1 μg/mL (100 μL/well) can bind Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag (Cat. No. NP1-V52H3) with a linear range of 1-63 ng/mL (Routinely tested).

Bioactivity-SPR



Pan Influenza A Nucleoprotein Antibody, Mouse MAb immobilized on CM4 Chip can bind Influenza A virus (Wisconsin/67/2022) NP (H1N1) Protein, His Tag (Cat. No. NP1-V52H3) with an affinity constant of 3.32 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Influenza, commonly known as ‘the flu’, is an infectious disease of birds and mammals caused by RNA viruses of the family Orthomyxoviridae, the influenza viruses.Influenza viral nucleoprotein (NP) is highly conserved and the most abundant non-enzymatic viral protein in infected cells. NP is a key component of the viral ribonucleoproteins (vRNPs) complex, and its recognized functions include, but are not limited to, binding to RNA and oligomerizing for the vRNP complex, undergoing intracellular trafficking, and participating in the switch from mRNA transcription to vRNA replication.

Clinical and Translational Updates