SARS-CoV-2 Nucleocapsid Protein NTD, His Tag (MALS verified)

Catalog # NUN-C5143

Synonym

Nucleocapsid protein,NP,Protein N

Source

SARS-CoV-2 Nucleocapsid Protein NTD, His Tag(NUN-C5143) is expressed from E. coli cells. It contains AA Gly 44 - Glu 174 (Accession # QHO62115.1). Predicted N-terminus: Met 1

Molecular Characterization

Poly-his	Nucleocapsid protein(Gly 44 - Glu 174) QHO62115.1

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

The protein has a calculated MW of 15.3 kDa. The protein migrates as 16 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 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

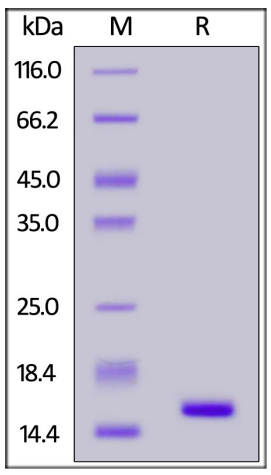
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

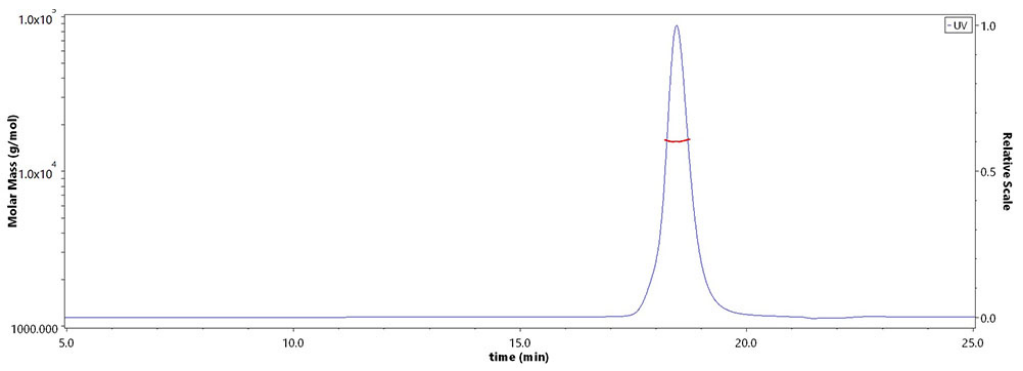
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



SARS-CoV-2 Nucleocapsid Protein NTD, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of SARS-CoV-2 Nucleocapsid Protein NTD, His Tag (Cat. No. NUN-C5143) is more than 90% and the molecular weight of this protein is around 12-18 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Nucleocapsid protein ELISA

Immobilized SARS-CoV-2 Nucleocapsid Protein NTD, His Tag (Cat. No. NUN-C5143) at 1 μg/mL (100 μL/well) can bind Anti-SARS-CoV-2

Nucleocapsid Antibody, Mouse IgG1 with a linear range of 0.2-3 ng/mL (QC tested).

Background

Nucleocapsid (N) protein is the most abundant protein found in coronavirus. CoV N protein is a highly immunogenic phosphoprotein important for viral genome replication and modulation of cell signaling pathways. It was first identified by a research team while they were screening for ADP-ribosylated proteins during coronavirus (CoV) infection (Grunewald M. E., et al. 2017, Virology; 517: 62-68). The array of diverse functional activities accommodated in N protein makes it more than a structural protein but also an interesting target in the development of antiviral therapeutics. Because of the conservation of N protein sequence and its strong immunogenicity, N protein of coronavirus is chosen as a diagnostic tool.