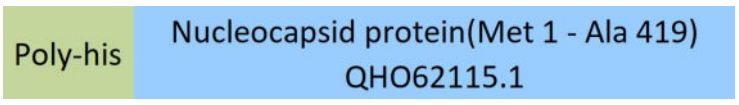
Synonym

Nucleocapsid protein,NP,Protein N,COVID-19

Source

SARS-CoV-2 Nucleocapsid protein, His Tag (NUN-C51H2) is expressed from E.coli cells. It contains AA Met 1 - Ala 419 (Accession # QHO62115.1).
Predicted N-terminus: Met

Molecular Characterization



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

The protein has a calculated MW of 51.0 kDa. The protein migrates as 53-55 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Delivered as bulk protein in a 0.2 μm filtered solution of 10 mM PB, Arginine, pH7.4.

Contact us for customized product form or formulation.

Storage

Please avoid repeated freeze-thaw cycles.

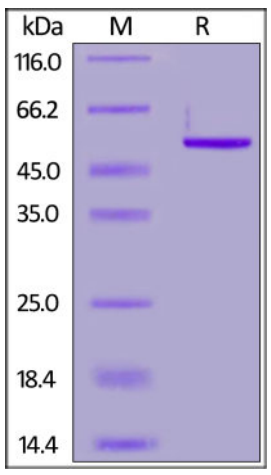
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

Shipping

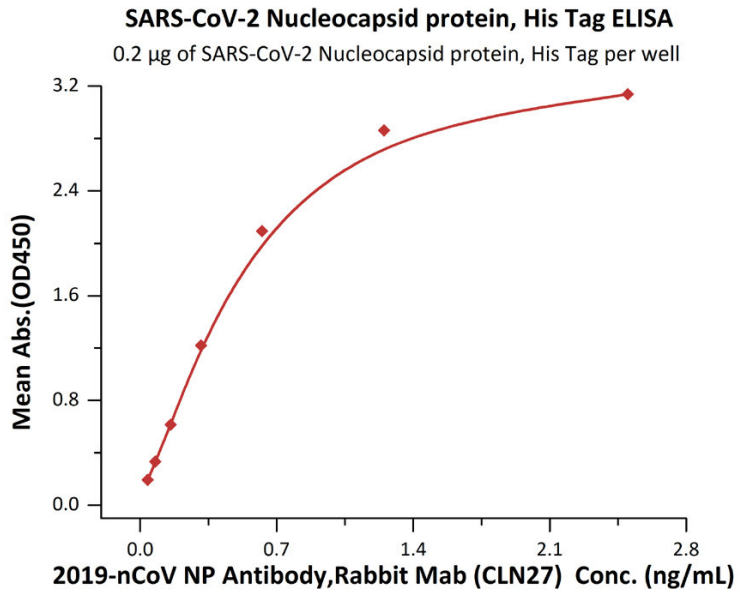
This product is supplied as sterile liquid solution and shipped frozen with dry ice, please inquire the shipping cost.

SDS-PAGE



SARS-CoV-2 Nucleocapsid protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized SARS-CoV-2 Nucleocapsid protein, His Tag (Cat. No. NUN-C51H2) at 2 μg/mL (100 μL/well) can bind 2019-nCoV NP Antibody, Rabbit MAb (CLN27) with a linear range of 0.02-0.6 ng/mL (QC tested).

Background

Nucleocapsid protein is a most abundant protein of coronavirus. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. While screening for ADP-ribosylated proteins during coronavirus (CoV) infection, we identified as the viral nucleocapsid (N) protein. Novel post-translation modification of the CoV N protein that may play a regulatory role for this important structural protein. The array of diverse functional activities accommodated in the hantaviral N protein goes far beyond to be a static structural protein and makes it an interesting target in the development of antiviral therapeutics. Because of the conservation of N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.

References

(1) Reuter M, et al. Virus Genes. 2018. 54(1):5-16.
(2) Grunewald ME, et al. Virology. 2018. 517:62-68.
(3) Jeeva S, et al. PLoS One. 2017. 12(9):e0184935.

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.