



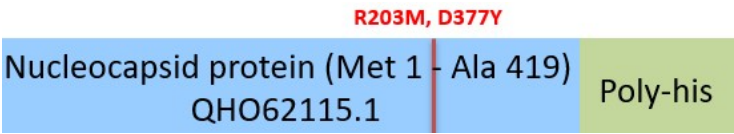
Synonym

Nucleocapsid protein,NP,Protein N

Source

SARS-CoV-2 Nucleocapsid protein (R203M, D377Y), His Tag (NUN-C52Hn) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Ala 419 (Accession # [QHO62115.1](#) (R203M, D377Y)). The mutations (R203M, D377Y) on nucleocapsid protein were identified in the SARS-CoV-2 Kappa variant (Pango lineage: B.1.617.1; other names: 21A/S:154K).  
Predicted N-terminus: Met 1

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.  
The protein has a calculated MW of 47.3 kDa. The protein migrates as 55-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

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

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 0.2 M Arginine, 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

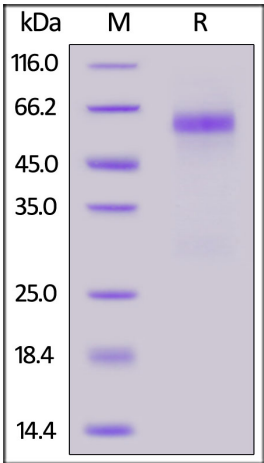
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



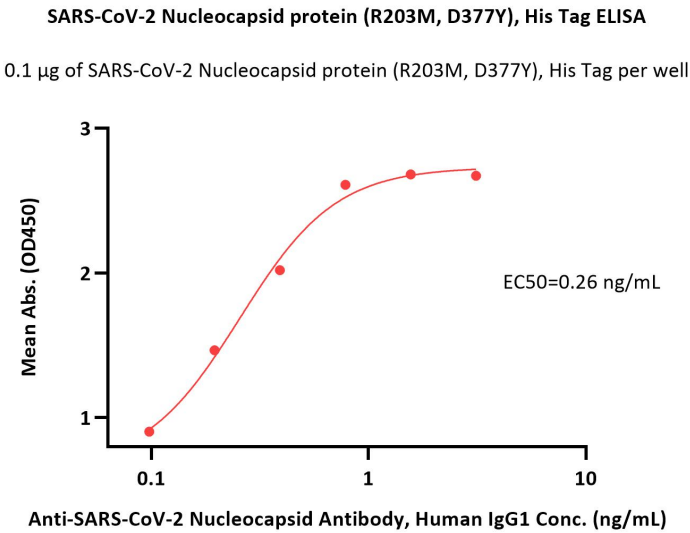
SARS-CoV-2 Nucleocapsid protein (R203M, D377Y), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

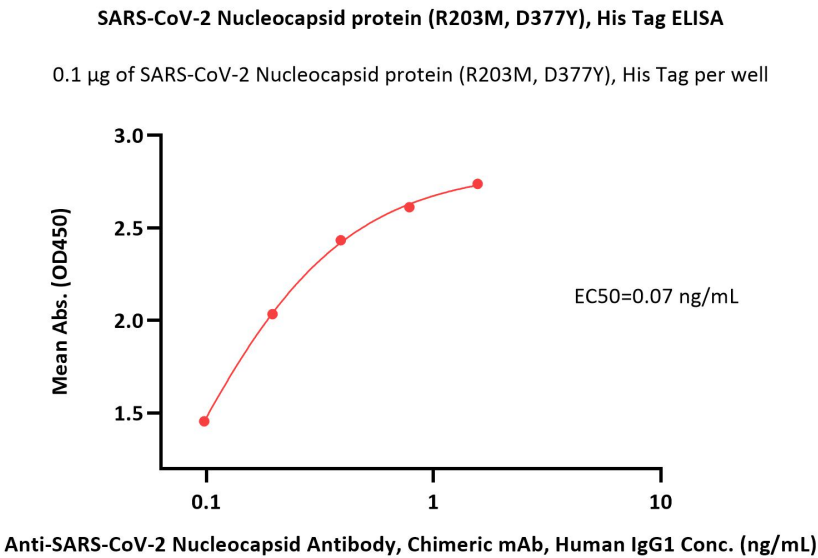


SARS-CoV-2 Nucleocapsid protein (R203M, D377Y), His Tag

Catalog # NUN-C52Hn



Immobilized SARS-CoV-2 Nucleocapsid protein (R203M, D377Y), His Tag (Cat. No. NUN-C52Hn) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Nucleocapsid Antibody, Human IgG1 with a linear range of 0.2-1 ng/mL (QC tested).



Immobilized SARS-CoV-2 Nucleocapsid protein (R203M, D377Y), His Tag (Cat. No. NUN-C52Hn) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Nucleocapsid Antibody, Chimeric mAb, Human IgG1 with a linear range of 0.098-0.4 ng/mL (Routinely 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.

