

Source

Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 (NUN-S47) was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified recombinant SARS-CoV-2 Nucleocapsid protein. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.

Isotype

Mouse IgG1/kappa

Specificity

This product is a specific antibody against SARS-CoV-2 Nucleocapsid protein. No cross-reactivity is detected with nucleocapsid protein of other coronaviruses, including SARS-CoV, MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-OC43 and HCoV-HKU1.

Application

This antibody can be paired with other Anti-SARS-CoV-2 Nucleocapsid antibodies to detect SARS-CoV-2 Nucleocapsid protein in sandwich ELISA or LFA assay.

Purity

>95% as determined by SDS-PAGE.

Formulation

Delivered as bulk protein in a 0.2 µm filtered solution of PBS, pH7.4.

Storage

For long term storage, the product should be stored in liquid state at -2-6°C upon receipt.

*Please avoid repeated freeze-thaw cycles.*

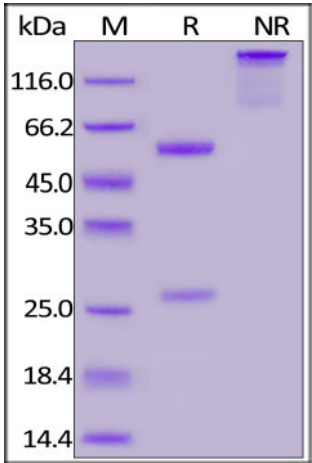
This product is stable after storage at:

- The product MUST be stored at -2-6°C upon receipt.
- The product is validated to be stable after storage at 4°C for 3 months under sterile conditions.

Shipping

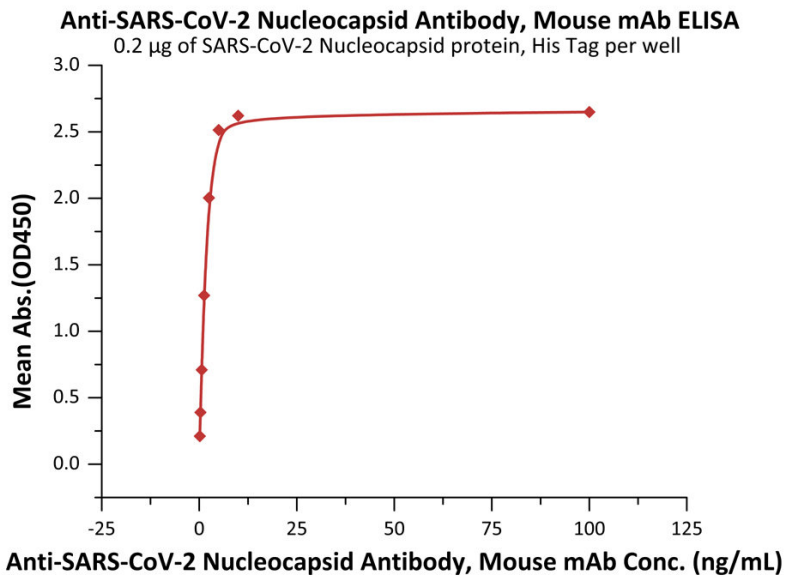
*This product is supplied and shipped as sterile liquid solution with blue ice, please inquire the shipping cost.*

SDS-PAGE

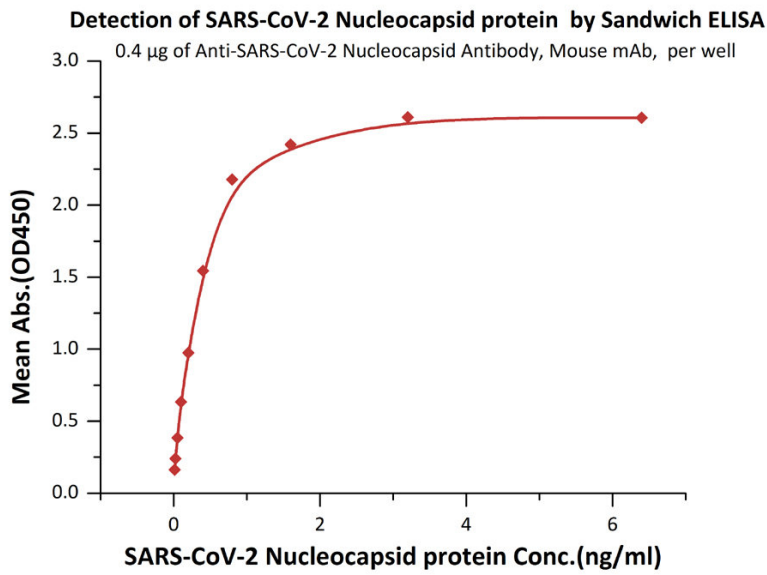


Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

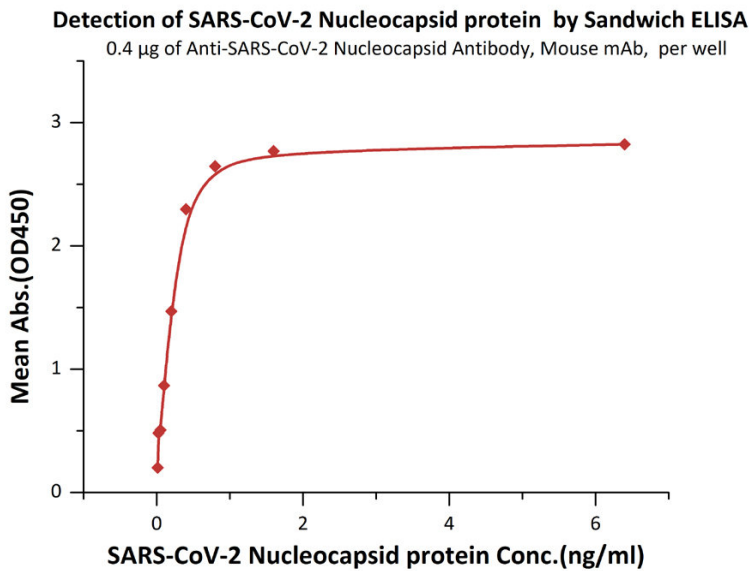
Bioactivity-ELISA



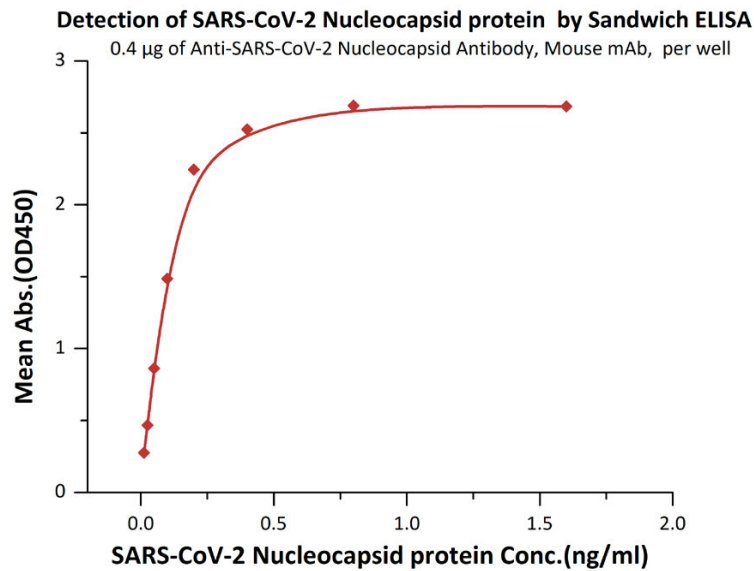
Immobilized SARS-CoV-2 Nucleocapsid protein, His Tag (Cat. No. NUN-C5227) at 2 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 (Cat. No. NUN-S47) with a linear range of 0.15-2.5 ng/mL (QC tested).



**Detection SARS-CoV-2 Nucleocapsid Protein by Sandwich ELISA Assay.** Immobilized Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S46) at 4 µg/mL (100 µL/well) can bind SARS-CoV-2 Nucleocapsid Protein. And then add Biotinylated Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S47) at 1:5000. Detection was performed using high sensitivity HRP-conjugated streptavidin with sensitivity of 12.5 pg/mL (Routinely tested).



**Detection SARS-CoV-2 Nucleocapsid Protein by Sandwich ELISA Assay.** Immobilized Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S57) at 4 µg/mL (100 µL/well) can bind SARS-CoV-2 Nucleocapsid Protein. And then add Biotinylated Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S47) at 1:15000. Detection was performed using high sensitivity HRP-conjugated streptavidin with sensitivity of 12.5 pg/mL (Routinely tested).



**Detection SARS-CoV-2 Nucleocapsid Protein by Sandwich ELISA Assay.** Immobilized Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S61) at 4 µg/mL (100 µL/well) can bind SARS-CoV-2 Nucleocapsid Protein. And then add Biotinylated Anti-SARS-CoV-2 Nucleocapsid Antibody (Cat. No. NUN-S47) at 1:15000. Detection was performed using high sensitivity HRP-conjugated streptavidin with sensitivity of 12.5 pg/mL (Routinely 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.

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.