## Catalog # NUN-S47



#### Source

Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 (AS47) (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. ELISA test validated that this antibody can bind multiple N protein variants (Cat. No. NUN-C52H8, NUN-C52Hc, NUN-C52Hd, NUN-C52Hm, NUN-C52H6, NUN-C52H3, NUN-C52H9, NUN-C52H4) with similar affinity as compared to the wild type N protein (Cat. No. NUN-C5227).

## 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.

# Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# **SDS-PAGE**



## Formulation

Supplied as 0.2 µm filtered solution in PBS, pH7.4 .

Contact us for customized product form or formulation.

### Shipping

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

### Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- For long term storage, the product is stable for up to 3 years at -70°C from date of receipt;
- For short term storage, the product is stable for up to 12 months at 2-8°C from date of receipt.



Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 (AS47) 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** 







Catalog # NUN-S47



Immobilized SARS-CoV-2 Nucleocapsid protein, His Tag (Cat. No. NUN-C5227) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-SARS-CoV-2 Nucleocapsid Antibody, Mouse IgG1 (AS47) (Cat. No. NUN-S47) with a linear range of 0.15-2.5 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.

### **Clinical and Translational Updates**

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



1/20/2023