

# Recombinant COVID-19 Nucleocapsid protein, AVI/His-tagged, Biotinylated

**Cat. No.** Nucleocapsid-83V    **Lot. No.** (See product label)

## SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Product Overview</b>     | Recombinant COVID-19 Nucleocapsid protein (Met1-Ala419), Biotinylated, was fused to His/AVI-tag at the C-terminus and expressed in Baculovirus-Insect Cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>              | Sars-CoV-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>               | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>        | Met1-Ala419                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>          | <p>Coronaviruses are enveloped viruses with a positive-sense RNA genome and with a nucleocapsid of helical symmetry. Coronavirus nucleoproteins localize to the cytoplasm and the nucleolus, a subnuclear structure, in both virus-infected primary cells and in cells transfected with plasmids that express N protein. Coronavirus N protein is required for coronavirus RNA synthesis, and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is a most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to formation of the helical nucleocapsid. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. Because of the conservation of N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.</p> |
| <b>Predicted N Terminal</b> | Met1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Lyophilized from sterile PBS, pH 7.4, 5% trehalose, 5% mannitol and 0.01% Tween80.                                                                                                                                                                           |
| <b>Molecular Mass</b> | The recombinant COVID-19 Nucleocapsid Protein consists of 430 amino acids and predicts a molecular mass of 47.08 kDa.                                                                                                                                        |
| <b>Endotoxin</b>      | < 1.0 EU per µg protein as determined by the LAL method.                                                                                                                                                                                                     |
| <b>Purity</b>         | > 85% as determined by SDS-PAGE.                                                                                                                                                                                                                             |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt at -20 centigrade to -80 centigrade.                                                                                                                                                         |
| <b>Storage</b>        | Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.                                                                               |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.25 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                               |
| <b>Shipping</b>       | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |
| <b>Conjugation</b>    | Biotin                                                                                                                                                                                                                                                       |

## GENE INFORMATION

**Gene Name** N

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|-----------------|----------------|
| Official Symbol | N              |
| Synonyms        | GU280_gp10     |
| Gene ID         | 43740575       |
| Protein Refseq  | YP_009724397.2 |
| UniProt ID      | P0DTC9         |

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