Recombinant 2019-nCoV N(D3L, S235F) Protein, His-tagged

Cat. No. N-353V **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV N Protein (YP_009724397.2) (Ser2-Ala419(D3L, S235F)) was expressed in E. coli, fused with a polyhistidine tag at the N-terminus.
Species	Sars-Cov-2
Source	E.coli
ProteinLength	Ser2-Ala419
Description	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. The coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to the 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 the N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.
Predicted N Terminal	Met
Form	Lyophilized from sterile 50 mM PB, 500 mM NaCl, pH 7.0. Normally 5 % - 8 %

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	trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant 2019-nCoV Nucleocapsid Protein (D3L, S235F) Protein consists of 425 amino acids and predicts a molecular mass of 46.5 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Purity	> 90 % as determined by SDS-PAGE.
Storage	Samples are stable for up to twelve months from date of receipt at -20°C to -80°C Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	N nucleocapsid phosphoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	N
Synonyms	coronavirus NP Protein, 2019-nCoV; coronavirus Nucleocapsid Protein, 2019-nCoV; coronavirus Nucleoprotein Protein, 2019-nCoV; cov np Protein, 2019-nCoV; ncov NP Protein, 2019-nCoV; NCP-CoV Nucleocapsid Protein, 2019-nCoV; novel coronavirus

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Gene ID	43740575
Protein Refseq	YP_009724397.2
UniProt ID	P0DTC9

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