



PRODUCT DATASHEET

Catalog No:	ANA-COV-05 1000
Pack Size	1mg
Product Name:	SARS-CoV-2 Nucleocapsid Protein, recombinant
Description:	Full-length nucleocapsid protein of SARS-CoV-2 (COVID-19) expressed in E. coli. Contains 6x His tag located at the C terminal.
Species:	2019-nCoV, SARS-CoV-2
Sequence:	Full-length nucleocapsid protein of SARS-CoV-2 (COVID-19) expressed in E. coli. Contains 6x His tag located at the C terminal.
Accession No.:	YP_009724397
Tag:	His-tag
Host:	E. Coli
Applications:	Potentially suitable for ELISA or lateral flow type assay.
Purity:	95% as determined by SDS-PAGE
Predicted Molecular Mass:	Predicts a molecular mass at 48 kDa.

Formulation:	Frozen liquid in PBS and 25mM K ₂ CO ₃ with preservatives.
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (<1.0 EU/μg purified protein) (LAL test)
Shipping, Storage and Stability:	≤-70 °C. Avoid repeated freeze-thaw.
Background:	<p>Coronaviruses have a positive-sense RNA genome 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 Nucleocapsid (N) protein.</p> <p>The N protein is a structural protein that binds to the coronavirus RNA genome, thus creating a shell (or capsid) around the enclosed nucleic acid. Besides</p> <ol style="list-style-type: none"> 1. interacts with the viral membrane protein during viral assembly 2. assists in RNA synthesis and folding 3. plays a role in virus budding 4. affects host cell responses, including cell cycle and translation. <p>Coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. N protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to formation of the helical nucleocapsid. It is a highly immunogenic phosphoprotein, also implicated in viral genome replication, and in modulating cell signaling pathways. It is chosen as a diagnostic tool, due to the conservation of N protein sequence and its strong immunogenicity.</p>

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