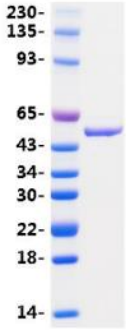




PRODUCT DATASHEET

Catalog No:	LTP-V001
Pack Size	50 µg
Product Name:	2019 Coronavirus SARS-CoV-2 Nucleocapsid Protein
Description:	Recombinant protein of SARS-CoV-2 nucleocapsid phosphoprotein (N) from Wuhan pneumonia virus (MN908947.3), with a DYKDDDDK tag.
Species:	2019-nCoV, SARS-CoV-2
Sequence:	The amino acid sequences of recombinant protein was derived from accession# YP_009724390.1 fused to Glu99-Lys330 region of human IgG1 constant region.
Accession No.:	MN908947.3; QHD43423.2;
Tag:	DYKDDDDK tag.
Host:	Expressed in HEK293 cells.
Applications:	Antigens, Western, ELISA and other in vitro binding or in vivo functional assays, and protein-protein interaction studies.
Purity:	>90% as determined by SDS-PAGE and Coomassie Blue staining.

<p>Predicted Molecular Mass:</p>	 <p>Predicted MW of this product is 49.7 kDa when running on SDS-PAGE under the reduced condition.</p>
<p>Formulation:</p>	<p>Protein formulated in a solution of 0.1M glycine, 50 mM Tris.Cl, pH 7.4, 150mM NaCl</p>
<p>Endotoxin:</p>	<p>Endotoxin level is < 0.1 ng/μg of protein (<1.0 EU/μg purified protein) (LAL test)</p>
<p>Shipping, Storage and Stability:</p>	<p>The product is shipped with dry ice. Upon receipt, unopened vial can be stored at -80°C for over 12 months. Avoid repeated freeze/thaw cycles. Also, the product can be aliquoted in the smaller size of working aliquots with the desired buffer and concentration and stored at or below -20°C stable for 3 to 4 weeks.</p>

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.</p> <p>Besides</p> <ol style="list-style-type: none">1. interacts with the viral membrane protein during viral assembly2. assists in RNA synthesis and folding3. plays a role in virus budding4. 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 signalling 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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