

PRODUCT DATASHEET

Catalog No:	BSV-COV-PR-04
Pack Size	100 µg
Product Name:	SARS-CoV-2 (2019-nCoV) Nucleocapsid Protein (His tag)
Description:	A DNA sequence encoding the NCP-CoV(2019-nCoV) Nucleocapsid protein was expressed with a polyhistidine tag at the C-terminus.
Species:	2019-nCoV, SARS-CoV-2
Sequence:	A DNA sequence encoding the NCP-CoV(2019-nCoV) Nucleocapsid protein was expressed with a polyhistidine tag at the C-terminus.
Accession No.:	YP_009724397.2
Tag:	C-terminal His-Tag
Host:	Expressed in Baculovirus-Insect Cells
Applications:	Testing in progress
Purity:	>90% as determined by SDS-PAGE.
Predicted Molecular Mass:	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>KDa</p> <p>M</p> <p>116</p> <p>66.2</p> <p>45.0</p> <p>35.0</p> <p>25.0</p> <p>18.4</p> <p>14.4</p> </div> <div style="margin-right: 20px;">  </div> <div> <p>The recombinant NCP-CoV (2019-nCoV) Nucleocapsid protein (His tag) consists of 430 amino acids and predicts a molecular mass of 47.08 kDa.</p> </div> </div>

Formulation:	Lyophilized from sterile 20mM Tris, 500mM NaCl, Ph 8.0, 10% glycerol
Endotoxin:	Endotoxin level is < 1.0 EU/μg purified protein (LAL test)
Shipping, Storage and Stability:	<p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.</p> <p>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. Samples are stable for up to twelve months from date of receipt at -20°C to -80°C</p> <p>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.</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. 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 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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