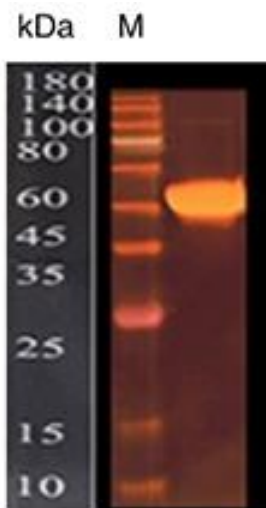


## Datasheet

### 2019 nCoV/COVID19 Nucleocapsid Recombinant Protein, His-tag

<b>Catalogue No:</b>	BSV-COV-PR-42	BSV-COV-PR-43
<b>Pack Size</b>	100 µg	500 µg
<b>Product Name:</b>	2019 nCoV/COVID19 Nucleocapsid Recombinant Protein, His-tag	
<b>Description:</b>	The recombinant 2019-nCoV Nucleocapsid (N) Protein is consisting of 431 amino acid residues. The DNA sequence encoding the COVID-19 Nucleocapsid protein domain, amino acids [1-419] including a C-terminal His tag, was expressed in CHO Cells.	
<b>Species:</b>	2019-nCoV, COVID-19	
<b>Accession No:</b>	YP_009724397.2	
<b>Tag:</b>	His-tag	
<b>Source:</b>	DNA sequence encoding the COVID-19 Nucleocapsid protein domain, amino acids [1-419] (accession# YP_009724397.2) including a C-terminal His tag, was expressed in CHO Cells.	
<b>Purity:</b>	>95%, as determined by SDS-PAGE and HPLC.	

**Predicted Molecular Mass:**



The recombinant 2019-nCoV Nucleocapsid protein is consisting of 431 amino acid residues. Due to glycosylation migrates as an approximately 60 kDa protein on SDS-PAGE.

<b>Endotoxin:</b>	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/µg(1EU/µg).
<b>Presentation:</b>	Recombinant nCoV-2019 Nucleocapsid protein was lyophilized from 0.2 µm filtered PBS, pH 7.4.

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**Reconstitution:**

A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.

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**Shipping, Storage & Stability:**

Lyophilized protein-shipped at ambient temperature. The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Repeated freeze-thaw cycles should be avoided.

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**Background:**

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.

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

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.

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.

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