

# SARS-CoV-2 Nucleocapsid

Full length protein

Cat. no. P2020-010

## Product Information

Protein:	SARS-CoV-2 N-Protein, His-tag (~ 50.0 kDa)
Sequence:	MSDNGPQNQRNAPRITFGGSPDSTGSNQNNGERSGARSKQRRPQGLPNNTASWFTALTQHG KEDLKFPRGQGVPIINTNSSPDDQIGYYRRATRIRGGDGKMKDLSRPWYFYLLGTGPEAG LPYGANKDGIWVATEGALNTPKDHIGTRNPANNAIVLQLPQGTTLPKGFYAEGSRGGS QASSRSSRSRNSSRNSTPGSSRGTSARMAGNGGDAALALLLDRLNQLESKMSGKGGQ QQGQTVTKKSAEASKKPRQKRTATKAYNVTQAFGRRGPEQTQGNFGDQELIRQGTDYKH WPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYTGAIKLDDKDPNFKDQVILLNKHIDAY KTFPTEPKKDKKKKADEQALPQRQKKQTVTLLPAADLDDFSKQLQQSMSSADSTQAS  Methionine at pos. 1 present due to cloning constraints, His-tag not shown in sequence.
Source:	Recombinantly expressed in E. coli Rosetta2 (DE3).
Tag(s):	His-tag, C-terminal
Purification:	Insoluble purified by affinity chromatography containing urea, followed by refolding and buffer exchange by dialysis.
Formulation:	PBS; pH 7.4  Liquid, stored and shipped at -80 °C.
Purity:	> 85 % (will be determined by densitometry of Coomassie stained gel, example next page)
Concentration:	Will be determined by BCA-Assay.
Long-term storage:	No recommendations.

## **Background Information:**

Beneath its envelope membrane, the new coronavirus SARS-CoV-2 consists of a icosahedral nucleocapsid that contains its genetic information in form of positive sensed single-stranded RNA. The RNA is contained in a nucleoprotein complex, consisting of the SARS-CoV-2 (COVID-19) Nucleocapsid protein. This phosphoprotein is necessary to keep the capsid in its helical symmetry and aids with packaging into the viral capsid by acting as a molecular RNA chaperone. Together with the matrix (M) protein, the N-protein is one of the most abundant proteins in the viral particle, it is important for viral replication and is also known for modulating cellular signaling. It is highly immunogenic and its sequence is very conserved, therefore it is an attractive target for diagnostic purposes.



*Structural model of the Nucleocapsid protein of SARS-CoV-2 (RNA binding domain only, amino acids 43-180). Beta stands are highlighted (red).*

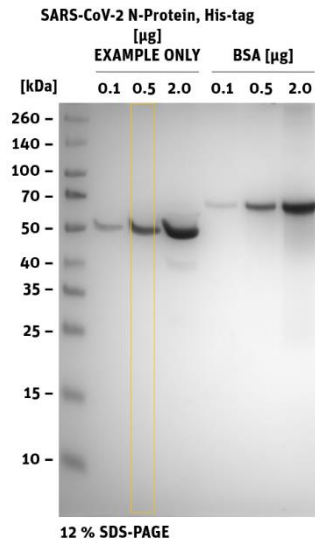
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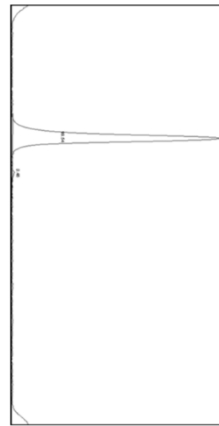
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## Product Information

Quality Information (provided for each lot):



SDS-PAGE/Coll.Coomassie



	Area	Percent
1	8661.912	99.536
2	40.364	0.464

Histogram (of marked lane in gel picture)