

Recombinant SARS-CoV-2 Nucleocapsid Protein

Cat. No. N-099S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant SARS-CoV-2 Nucleocapsid protein without tag was expressed in HEK293 cells.
Species	SARS-CoV-2
Source	HEK293
Description	Coronaviruses are enveloped viruses with a positive-sense RNA genome and 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 N protein. The coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to the formation of the helical nucleocapsid. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. Because of the conservation of the N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.
Form	Liquid
Molecular Mass	47 kDa
AA Sequence	MSDNGPQNQRNAPRITFGGPSDSTGSNQNGERSGARSKQRRPQGLPNNTASWFT

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

ALTQHGKEDLKFPGRGQVPINTNSSPDDQIGYYRRATRRIRGGDGKMKDLSRWYF
 YYLGTGPEAGLPYGANKDGIWVATEGALNTPKDHIGTRNPANNAIVLQLPQGTTLP
 KGFYAEGSRGGSQASSRSSSRNSSRNSTPGSSRGTSARMAGNGGDAALALL
 LDRLNQLESKMSGKGQQQGGQTVTKKSAAEASKKPRQKRTATKAYNVTQAFGR
 GPEQTQGNFGDQELIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLT
 YTGAIKLDDKDPNFKDQVILLNKHIDAYKTFPPTPKDKKKKADETQALPQRQKKQ
 QTVTLLPAADLDDFSKQLQQSMSSADSTQA

Endotoxin	< 0.10 EU/μg of the protein by the LAL method
Purity	> 95% by SDS-PAGE
Applications	ELISA, WB
Storage	We recommended to store this recombinant protein as received at 2-8 centigrade for up to one month. For longer-term storage, aseptically aliquot in working volumes without diluting and store at -80 centigrade. Avoid Repeated Freeze Thaw Cycles.
Concentration	0.5 mg/mL
Storage Buffer	This recombinant protein was 0.2 μm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1×PBS) pH 7.2-7.3 with no calcium, magnesium, or preservatives.

GENE INFORMATION

Gene Name	N nucleocapsid phosphoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	N
Synonyms	N; nucleocapsid phosphoprotein; nucleocapsid phosphoprotein; ORF9; structural

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protein	
Gene ID	43740575
mRNA Refseq	MN908947
Protein Refseq	YP_009724397
SDS-PAGE	

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