

Nucleocapsid Protein (His)

Cat. No.:	HY-P7437
Synonyms:	2019-nCoV coronavirus NP Protein; 2019-nCoV np Protein; 2019-nCoV novel coronavirus Nucleoprotein Protein
Species:	Virus
Source:	E. coli
Accession:	QHD43423.2 (M1-A419)
Gene ID:	43740575
Molecular Weight:	50-60 kDa

PROPERTIES

AA Sequence	<pre> HHHHHHMSDN GPQNQRNAPR ITFGGSPDST GSNQNGERSG ARSKQRRPQG LPNNTASWFT ALTQHGKEDL KFPRGQGVPI NTNSSPDDQI GYYRRATRR I RGGDGKMKDL SPRWYFY YLG TGPEAGLPYG ANKDG I IWVA TEGALNTPKD HIGTRNPANN AAIVLQLPQG TTLPKGFYAE GSRGGSQASS RSSRSRNS S RNSTPGSSRG TSPARMAGNG GDAALALLLL DRLNQL ESKM SGKGQQQQGQ TVTKKSAAEA SKKPRQKRTA TKAYNVTQAF GRRGPEQTQG NFGDQELIRQ GTDYKHWPQ I AQFAPSASA F FGMSRIGMEV TPSGTWLTYT GAIKLDKDP NFKDQV ILLN KHIDAYKTFP PTEPKKDKKK KADETQALPQ RQKKQQT VTL LPAADLDDFS KQLQQSMSSA DSTQA </pre>
Biological Activity	Immobilized 2019-nCoV NP Antibody(6G9)-Fc at 5 µg/mL(100 µl/well) can bind 2019-nCoV Nucleocapsid Protein-His. The ED ₅₀ of 2019-nCoV Nucleocapsid Protein-His is 0.1-0.7 µg/mL.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filter solution of 20 mM Tris-HCl, 300 mM NaCl, 10% Glycerol, 1 mM EDTA, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year from date of receipt. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

Coronaviruses are enveloped viruses with a positive-sense RNA genome and has a nucleocapsid of helical symmetry. The Nucleocapsid Protein localizes to the cytoplasm and the nucleolus in both virus-infected primary cells and in cells transfected with plasmids that express N protein^[1].

Nucleocapsid Protein is a basic protein and is abundant in coronaviruses, which has nonspecific binding activity toward nucleic acids, including ssRNA, ssDNA, and dsDNA. Nucleocapsid Protein is an essential RNA-binding viral protein in human coronavirus (CoV)-infected cells, is required for the replication and transcription of viral RNA. Human CoV NP is a valid target for antiviral drug research^{[1][2]}.

REFERENCES

[1]. Sander van Boheemen, et al. Genomic characterization of a newly discovered coronavirus associated with acute respiratory distress syndrome in humans. *mBio*. 2012 Nov 20;3(6):e00473-12.

[2]. Chung-ke Chang, et al. Structure-based virtual screening and experimental validation of the discovery of inhibitors targeted towards the human coronavirus nucleocapsid protein. *Mol Biosyst*. 2016 Jan;12(1):59-66.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite F, Monmouth Junction, NJ 08852, USA