Recombinant SARS-CoV-2 (2019-nCoV) Nucleocapsid Protein

Catalog Number: ATGP4080

PRODUCT INFORMATION

Expression system
HEK293

Domain
1-419aa

UniProt No.
P0DTC9

NCBI Accession No.
YP_009724397.2

Alternative Names
nucleocapsid phosphoprotein, Nucleoprotein, NC, Protein N,covid19, COVID-19, COVID-19 virus, HCoV-19, Human coronavirus 2019, SARS2, Severe acute respiratory syndrome coronavirus 2, 2019-nCoV, N

PRODUCT SPECIFICATION

Molecular Weight
46.4kDa (425aa)

Concentration
0.5mg/ml (determined by Absorbance at 280nm)

Formulation
Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 50% glycerol

Purity
> 90% by SDS - PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
An epidemic of acute respiratory syndrome in humans, which appeared in Wuhan, China in December 2019, was caused by a novel coronavirus (SARS-CoV-2). This disease was named as "Coronavirus Disease 2019" (COVID19). This virus shares highly homological sequence with SARS-CoV, and causes acute, highly lethal pneumonia

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coronavirus disease 2019 (COVID-19) with clinical symptoms similar to those reported for SARS-CoV and MERSCoV. The genome of this and other emerging pathogenic human CoVs encodes four major structural proteins [spike (S), envelope (E), membrane (M), and nucleocapsid (N)], approximately 16 nonstructural proteins (nsp1–16), and five to eight accessory proteins. Among them, the nucleocapsid protein acts as a viral suppressor of RNA interference in cells. The presence of circulating N protein in SARS patient may be be connected with its mode of expression in the viral replicative cycle. Also, Animal coronavirus have display that the nucleocapsid protein plays an important role in viral pathogenesis and replication. Recombinant SARS-CoV-2 (2019-nCoV) Nucleocapsid, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

MSDNGPQNQR NAPRITFGGP SDSTGSNQNG ERSGARSKQR RPQGLPNNTA SWFTALTQHG KEDLKFPRGQ GVPINTNSSP DDQIGYYRRA TRRIRGGDGK MKDLSPRWYF YYLGTGPEAG LPYGANKDGI IWVATEGALN TPKDHIGTRN PANNAAIVLQ LPQGTTLPKG FYAEGSRGGS QASSRSSSRS RNSSRNSTPG SSRGTSPARM AGNGGDAALA LLLLDRLNQL ESKMSGKGQQ QQGQTVTKKS AAEASKKPRQ KRTATKAYNV TQAFGRRGPE QTQGNFGDQE LIRQGTDYKH WPQIAQFAPS ASAFFGMSRI GMEVTPSGTW LTYTGAIKLD DKDPNFKDQV ILLNKHIDAY KTFPPTEPKK DKKKKADETQ ALPQRQKKQQ TVTLLPAADL DDFSKQLQQS MSSADSTQA<H HHHHH>

General References

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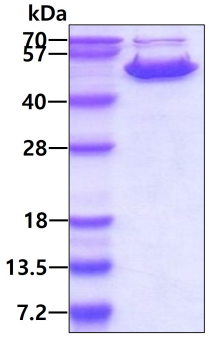
Gorbalenya A., et al (2020) Nat. Microbiol. 5:536-544.
Tortorici, M.A. and D. Veesler (2019). Adv. Virus Res. 105:93-116.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain