Datasheet for ABIN6953162

SARS-CoV-2 Nucleocapsid Protein (SARS-CoV-2 N) (AA 1-419) (His-SUMOstar Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Protein Characteristics:	AA 1-419
Origin:	SARS Coronavirus-2 (SARS-CoV-2)
Source:	Yeast
Protein Type:	Recombinant
Purification tag / Conjugate:	This SARS-CoV-2 Nucleocapsid protein is labelled with His-SUMOstar Tag.

Product Details

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 AAEAS
Characteristics:	N-terminal 6xHis-sumostar-tagged
Purity:	Greater than 90 % as determined by SDS-PAGE.

Target Details

Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Alternative Name:	SARS-CoV-2 Nucleocapsid Protein (SARS-CoV-2 N Products)
Target Type:	Viral Protein

Target Details

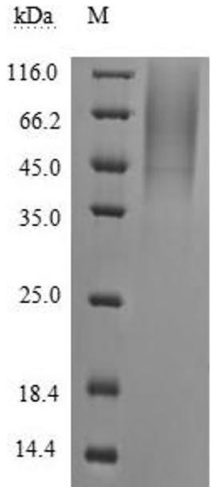
Background:	Nucleoprotein packages the positive strand viral genome RNA into a helical ribonucleocapsid (RNP) and plays a fundamental role during virion assembly through its interactions with the viral genome and membrane protein M. It plays an important role in enhancing the efficiency of subgenomic viral RNA transcription as well as viral replication. Coronavirus nucleoproteins are phosphoproteins, and are encoded near the 3' end of the genome. N possesses two RNA-binding domains: an N-terminal domain with adjacent S/R-rich motif and the C-terminal 209 amino acids. N protein is invovled in coronavirus infection with many ways: the C-terminal domain (CTD) of N is important for binding the genomic RNA packaging signal leading to selective genome incorporation, the N3 domain interacts with the endodomain of M to form virions, and the serine-arginine repeat region of N (SR) interacts with the first ubiquitin-like domain of nsp3 in a critical early replication step. Moreover, it has also been demonstrated that N can oligomerize through interactions in the CTD, bind viral RNA through the N-terminal domain, unwind double-stranded nucleic acid in the manner of an RNA chaperone, and pack in a helix through the N-terminal domain, though none of these other functions has yet been demonstrated to be important for infection.
Molecular Weight:	67.6 kDa
UniProt:	P0DTC9

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50 % of glycerol (final concentration) and aliquot for long-term storage at -20 °C/-80 °C.
Buffer:	Lyophilized from a 0.2 μm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6 % Trehalose, pH 8.0
Storage:	-20 °C
Storage Comment:	Store at -20°C upon receipt, aliquoting is necessary for mutiple use. Avoid repeated freeze-thaw cycles.



SDS-PAGE

Image 1. (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5 % enrichment gel and 15 % separation gel.