Datasheet for ABIN6992418

SARS-CoV-2 Nucleocapsid Protein (SARS-CoV-2 N) (G204R, R203K) (His tag)

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Overview

Quantity:	100 µg
Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Protein Characteristics:	G204R, R203K
Origin:	SARS Coronavirus-2 (SARS-CoV-2)
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This SARS-CoV-2 Nucleocapsid protein is labelled with His tag.

Product Details

Purpose:	SARS-CoV-2 Nucleocapsid protein (R203K, G204R), His Tag
Sequence:	AA 1-419
Characteristics:	SARS-CoV-2 Nucleocapsid protein (R203K, G204R), His Tag is expressed from human 293 cells (HEK293). It contains AA Met 1 - Ala 419 (Accession # QHO62115.1 (R203K, G204R). The nucleocapsid protein is consisted of the N-terminal RNA-binding domain (NTD) and the C-terminal dimerization domain (CTD), divided by a central serine/arginine-rich (SR)-linker responsible for phosphorylation. The mutations (R203K, G204R) were identified on the SR-linker on the nucleocapsid protein of SARS-CoV-2 variants. Phosphorylation of this SR-link motif in SARS-CoV modulates nucleocapsid multimerization, translational inhibitory activity and cellular localization. The co-occuring mutations R203K and G204R may decrease the overall structural flexibility of SARS-COV-2 N protein.

Product Details

Purity:	>90 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

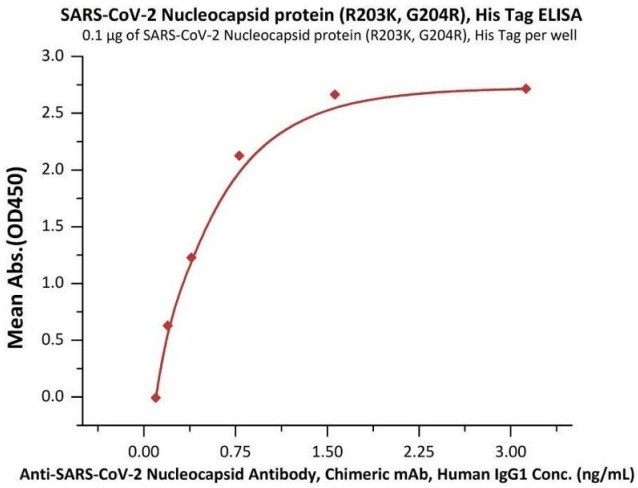
Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Alternative Name:	SARS-CoV-2 Nucleocapsid protein (SARS-CoV-2 N Products)
Target Type:	Viral Protein
Background:	Nucleocapsid (N) protein is the most abundant protein found in coronavirus. CoV N protein is a highly immunogenic phosphoprotein important for viral genome replication and modulation of cell signaling pathways. It was first identified by a research team while they were screening for ADP-ribosylated proteins during coronavirus (CoV) infection (Grunewald M. E., et al. 2017, Virology, 517: 62-68). The array of diverse functional activities accommodated in N protein makes it more than a structural protein but also an interesting target in the development of antiviral therapeutics. Because of the conservation of N protein sequence and its strong immunogenicity, N protein of coronavirus is chosen as a diagnostic tool.
Molecular Weight:	47.4 kDa

Application Details

Restrictions:	For Research Use only

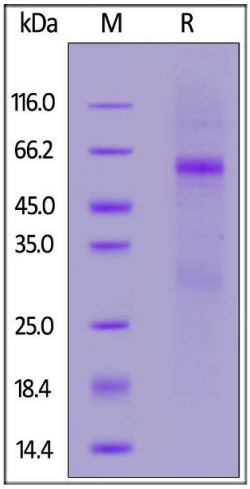
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Storage:	-20 °C



ELISA

Image 1. Immobilized SARS-CoV-2 Nucleocapsid protein (R203K, G204R), His Tag (ABIN6992418) at 1 µg/mL (100 µ L/well) can bind A-CoV-2 Nucleocapsid Antibody, Chimeric mAb, Human IgG1 with a linear range of 0.2-1 ng/mL (QC tested).



SDS-PAGE

Image 2. SARS-CoV-2 Nucleocapsid protein (R203K, G204R), His Tag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90 % .