

# **COVID-19 products**

### Learn more about Human Coronavirus

Coronaviruses are enveloped RNA viruses which are characterized by spike proteins that project from the surface (which gives the coronavirus its name). There are seven strains of coronavirus strains that commonly infect people worldwide, including two alpha coronaviruses (HCoV-229E and HCoV-NL63) and five beta coronaviruses (HCoV-HKU1, HCoV-OC43, MERS-CoV, SARS-CoV, and the newly-identified SARS-CoV-2).

# The Nucleocapsid Protein

Nucleocapsid protein (NP) 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. NP also plays an important role in enhancing the efficiency of sub-genomic viral RNA transcription as well as viral replication.

## www.croyezbio.com

### Croyez Bioscience Co., Ltd.

Cat.	Name	Package
C11001	Human Coronavirus (NL63) Nucleocapsid Protein, His-SUMO tag, HEK293	5, 20, 100 µg
C11002	MERS-CoV Nucleocapsid Protein, His-SUMO tag, HEK293	5, 20, 100 µg
C11003	SARS-CoV Nucleocapsid Protein, His-SUMO tag, HEK293	5, 20, 100 µg
C11004	SARS-CoV-2 Nucleocapsid Protein, His-SUMO tag, HEK293	5, 20, 100 µg
C11005	SARS-CoV-2 Nucleocapsid Protein, E. coli	100 µg
C11008	Human Coronavirus (OC43) Nucleocapsid Protein, His tag, E. coli	100 µg
C11009	Human Coronavirus (HKU1) Nucleocapsid Protein, His tag, E. coli	100 µg
C11010	Human Coronavirus (229E) Nucleocapsid Protein, His tag, E. coli	100 µg

### SARS-CoV Nucleocapsid Protein, His-SUMO tag, HEK293

• Purity >98% as deter-

mined by SDS-PAGE

• Endotoxin <0.1 EU/µg

• HEK293 expressed

His-SUMO tag

ROYEZ

### SARS-CoV-2 Nucleocapsid Protein, His-SUMO tag, HEK293

kDa

75

63

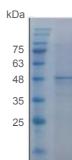
48

35

25

- Purity >95% as determined by SDS-PAGE
  - His-SUMO tag
  - Endotoxin <0.1 EU/µg</li>
  - HEK293 expressed

# SARS-CoV-2 Nucleocapsid Protein, *E. coli*



- Purity >95% as determined by SDS-PAGE
- Tag-free
- Endotoxin <0.1 EU/µg
- E. coli expressed



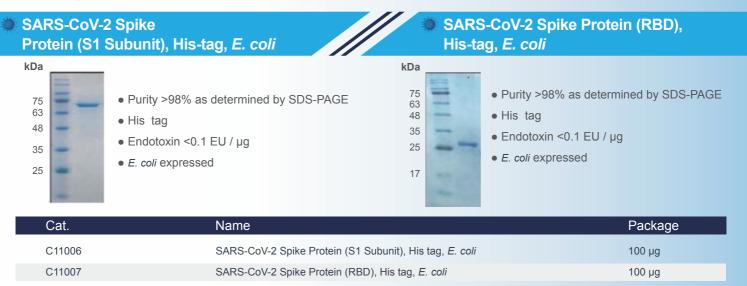
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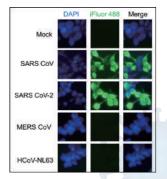
# The Spike protein

The spike glycoprotein plays an indispensable role in the binding of the virus to the host cell during the infection process. The spike protein is a large type I transmembrane protein composed of two subunits, N-terminal S1 domain and C-terminal S2 domain. S1 subunit mainly contains a receptor binding domain (RBD), which allows coronaviruses to directly binds to the cell surface receptor.



### Cat no : C10004

### Human anti-SARS-CoV&CoV-2 NP Antibody



#### **Primary antibody :**

Human anti-SARS-CoV&CoV-2 NP Antibody (Cat no: C10004), 1:500

2 450

01

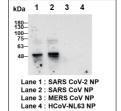
1

Spike mAb

8

Secondary antibody : Goat anti Human IgG-iFlour 488 (Cat no: C04051), 1:1,000

Immunofluorescence analysis of Human anti-SARS-CoV & CoV-2 NP antibody



kDa 1 2

180– 130– 100– 75– 63–

48-

Lane 1 : HEK293 lysate Lane 2 : SARS CoV-2 VLP

### Primary antibody :

Human anti-SARS-CoV&CoV-2 NP Antibody, (Cat no: C10004), 1:1,000

#### Secondary antibody :

Donkey anti-human IgG-HRP, 1:10,000

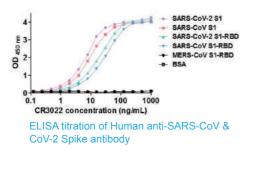
Western blotting analysis of Human anti-SARS-CoV&CoV-2 NP antibody

Merge

4

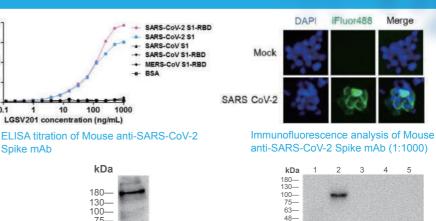
5

### Human anti-SARS-CoV & CoV-2 Spike antibody



Cat.	Name	Package
C10005	Human anti-SARS-CoV &	100 µg
	CoV-2 Spike antibody	
C10006	Mouse anti-SARS-CoV-2	100 µg
	Spike mAb	

### Mouse anti-SARS-CoV-2 Spike mAb



75 63-48 35-

25—

SARS-CoV-2 VLP

Lane 1: SARS-CoV-2 S1-RBD Lane 2: SARS-CoV-2 S1 Lane 3: SARS-CoV S1-RBD Lane 4: SARS-CoV St Lane 5: MERS-CoV S1-RBD

35-

Western blotting analysis of Mouse anti-SARS-CoV-2 Spike mAb (1:5000)