

Mouse Anti-SARS-CoV-2 (COVID-19) Nucleocapsid Protein/SARS-CoV-2 NP [1C7]: MC0375-0.1

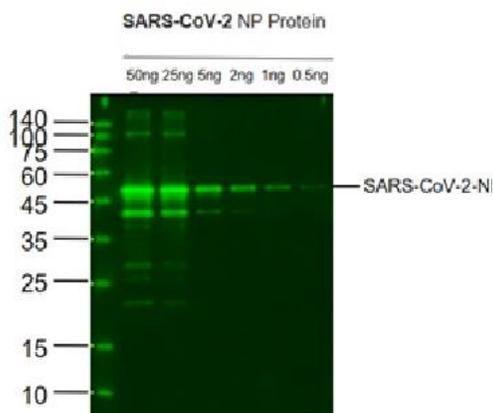
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Description: SARS-CoV-2 is slightly different from SARS CoV and MERS CoV, but the functionally important ORFs, ORF1a and ORF1b, and major structural proteins such as the spike (S), membrane (M), envelop (E) and nucleocapsid (N) proteins are well annotated. Four structural proteins are essential for virion assembly and infection of CoVs. Homotrimers of S proteins make up the spike on the surface of virus particles and it is the sole viral membrane protein responsible for cell entry. It binds to the receptor on the target cell and mediates subsequent virus-cell fusion. It is also the key target for vaccine design. The M protein has three transmembrane domains and shapes the virions, promotes membrane curvature, and binds to the nucleocapsid. The E protein plays a role in virus assembly and release, and it is required for pathogenesis. The N protein contains two domains, both of them can bind virus RNA genome via different mechanisms. It is reported that N protein is an antagonist of interferon and viral encoded repressor (VSR) of RNA interference (RNAi), which benefit the viral replication. The S-protein mediates receptor binding and membrane fusion. S-protein contains two subunits, S1 and S2. S1 contains a receptor binding domain (RBD), which is responsible for recognizing and binding with the cell surface receptor. S2 subunit is the "stem" of the structure, which contains other basic elements needed for the membrane fusion. The S-protein is the common target for neutralizing antibodies and vaccines. It's been reported that SARS-CoV-2 infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The N-protein is the most abundant protein in coronavirus. The N-protein is a highly immunogenic phosphoprotein, and it is normally very conserved. The N protein of coronavirus is often used as a marker in diagnostic assays.

Specifications:

Clone: 1C7
 Source: Mouse
 Isotype: IgG2b
 Reactivity: SARS-CoV-2
 Immunogen: Recombinant SARS-CoV-2 N protein (His-tag)
 Localization: Nucleocapsid protein
 Formulation: Protein G purified antibody in PBS pH7.4, containing 0.1% Proclin300
 Storage: Store at -20°C for 12 months
 Application Dilution: ELISA: 500-1000 WB: 300-1000
 Package:

Description	Catalog No.	Size
SARS-CoV-2 Nucleocapsid Protein/SARS-CoV-2 NP	MC0375-0.1	0.1 ml



Lane 1: SARS-CoV-2 N protein at 50ng;
 Lane 2: SARS-CoV-2 N protein at 25ng;
 Lane 3: SARS-CoV-2 N protein at 5ng;
 Lane 4: SARS-CoV-2 N protein at 2ng ;
 Lane 5: SARS-CoV-2 N protein at 1ng;
 Lane 6: SARS-CoV-2 N protein at 0.5ng
 probed with SARS-CoV-2 N protein monoclonal Antibody, Unconjugated at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation for 60 min at 37°C.

References:

1. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. Wu Z et al. JAMA. Feb 24, 2020.
2. A human monoclonal antibody blocking SARS-CoV-2 infection. Chunyan Wang, Berend-Jan Bosch, et al. Cold Spring Harbor Laboratory BioRxiv. March 2020.

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