PRODUCT INFORMATION

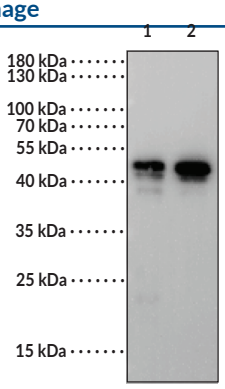
SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 0002)

Item No. 33628

Overview and Properties

Contents:	This vial contains 100 µl of protein A-purified recombinant monoclonal antibody.
Synonyms:	SARS-CoV/SARS-CoV-2 NP, SARS-CoV/SARS-CoV-2 Nucleoprotein, Severe Acute Respiratory Syndrome Coronavirus /Severe Acute Respiratory Syndrome Coronavirus 2 Nucleocapsid Protein
Immunogen:	Recombinant SARS-CoV-2 nucleocapsid protein
Species Reactivity:	(+) SARS-CoV, SARS-CoV-2; (-) MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-HKU1 (isolate N5), HCoV-OC43
Molecular Weight:	45.6 kDa
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	0002
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, ELISA (capture), and Western blot (WB). The recommended starting dilution is 1:5,000-1:10,000 for ELISA, 1:250-1:2,000 for ELISA (capture), and 1:1,000-1:5,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: SARS-CoV NP Protein (10 ng)
Lane 2: SARS-CoV-2 NP Protein (10 ng)

WB of SARS-CoV NP Protein using SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 0002) at a dilution of 1:1,000.

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Description

Severe acute respiratory syndrome coronavirus (SARS-CoV) and SARS-CoV-2 nucleocapsid proteins are encoded by the *N* gene in SARS-CoV and SARS-CoV-2 RNA.[1,2] SARS-CoV and SARS-CoV-2 are members of the *Betacoronavirus* genus of viruses that have approximately 79% sequence identity and share 27 T cell epitopes in common.[3-5] The SARS-CoV-2 nucleocapsid protein has greater than 90% similarity to the SARS-CoV nucleocapsid protein and contains two unique B cell epitopes and two T cell epitopes that are structurally stable, non-allergenic, and induce production of IFN-γ.[2,5] SARS-CoV and SARS-CoV-2 nucleocapsid proteins package the viral RNA into a helical ribonucleoprotein complex (RNP), which is a template for viral replication, and are integral for viral self-assembly and involved in regulation of the host cell cycle.[2,6] SARS-CoV and SARS-CoV-2 are the causative agents of SARS and COVID-19, respectively, both of which are primarily respiratory illnesses characterized by fever, cough, and shortness of breath that can lead to life-threatening complications.[4,7,8] Cayman's SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 0002) can be used for ELISA, ELISA (capture), and Western blot (WB; reducing conditions) applications. This recombinant antibody recognizes nucleocapsid protein at 45.6 kDa from SARS-CoV and SARS-CoV-2.

References

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