

PRODUCT INFORMATION



SARS-CoV Nucleocapsid Protein Polyclonal Antibody

Item No. 31430

Overview and Properties

Contents:	This vial contains 100 or 200 µl of protein A-purified polyclonal antibody.
Synonyms:	SARS-CoV NP, SARS-CoV Nucleoprotein, Severe Acute Respiratory Syndrome Coronavirus Nucleocapsid Protein
Immunogen:	Recombinant SARS-CoV nucleocapsid protein
Species Reactivity:	(+) SARS-CoV
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA; the recommended starting dilution is 1:1,000-1:2,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Description

Severe acute respiratory syndrome coronavirus (SARS-CoV) nucleocapsid protein is a viral protein encoded by the *N* gene in SARS-CoV RNA.¹ SARS-CoV is a member of the *Betacoronavirus* genus of viruses and has an approximately 79% sequence identity with SARS-CoV-2, the causative agent of COVID-19.^{2,3} The SARS-CoV nucleocapsid protein has a greater than 90% similarity to the SARS-CoV-2 nucleocapsid protein, and SARS-CoV-2 contains 27 T cell epitopes that are identical to SARS-CoV T cell epitopes.⁴ The SARS-CoV nucleocapsid protein packages the viral RNA into a helical ribonucleoprotein complex (RNP) that is a template for viral replication.⁵ It is integral for viral self-assembly and involved with regulation of the cell cycle. SARS-CoV is the causative agent of SARS, a primarily respiratory illness characterized by fever, cough, shortness of breath, and an approximately 10% fatality rate.³ Cayman's SARS-CoV Nucleocapsid Protein Polyclonal Antibody can be used for ELISA.

References

1. Kandeel, M., Ibrahim, A., Fayed, M., *et al.* From SARS and MERS CoVs to SARS-CoV-2: Moving toward more biased codon usage in viral structural and nonstructural genes. *J. Med. Virol.* **92(6)** (2020).
2. Lu, R., Zhao, X., Li, J., *et al.* Genomic characterisation and epidemiology of 2019 novel coronavirus: Implications for virus origins and receptor binding. *Lancet* **395(10224)**, 565-574 (2020).
3. Meo, S.A., Alhowikan, A.M., Al-Khlaiwi, T., *et al.* Novel coronavirus 2019-nCoV: Prevalence, biological and clinical characteristics comparison with SARS-CoV and MERS-CoV. *Eur. Rev. Med. Pharmacol. Sci.* **24(4)**, 2012-2019 (2020).
4. Ahmed, S.F., Quadeer, A.A., and McKay, M.R. Preliminary identification of potential vaccine targets for the COVID-19 coronavirus (SARS-CoV-2) based on SARS-CoV immunological studies. *Viruses* **12(3)**, E254 (2020).
5. Chang, C.-K., Hou, M.-H., Chang, C.-F., *et al.* The SARS coronavirus nucleocapsid protein--forms and functions. *Antiviral Res.* **103**, 39-50 (2014).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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