

12-8468: Anti-SARS-CoV-2 Nucleocapsid (N) (Clone NP1-D4) HRP

Clonality :	Monoclonal
Clone Name :	NP1-D4
Application :	ELISA
Alternative Name :	COV2-NP1-D4, SARS-CoV-2 Nucleocapsid, SARS-CoV-2 Nucleoprotein, Protein N, SARS-CoV N Protein
Isotype :	Human IgG1

Description

Specificity: Anti-SARS-CoV-2 Nucleocapsid, clone NP1-D4, specifically targets an epitope on the SARS-CoV-2 nucleocapsid protein. Furthermore, it is reported to bind to the RNA binding domain of the N protein.

Antigen Distribution: The nucleocapsid protein is expressed in the internal nucleocapsid of SARS-CoV-2.

Background: Coronavirus disease 2019 (COVID-19) is caused by the Coronaviridae family virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)¹. SARS-CoV-2 has four structural proteins encoded by its single-stranded, positive-sense RNA genome: the spike (S), envelope (E), membrane (M), and nucleocapsid (N) proteins². The N protein is a highly conserved 46 kDa protein that shares 90% homology with SARS-CoV³. The N protein has an N-terminal (NTD) and C-terminal domain (CTD), which bind to RNA and self-oligomerize, respectively^{4,5}, forming a helical nucleocapsid structure within the viral envelope⁶. Other functions of the N protein included viral transcription, replication, and modulating cell signaling pathways^{7,8}. The N protein is abundantly expressed during infection, and antibodies^{3,9} and memory T cells^{10,11} targeting the N protein have been identified in convalescent sera. Therefore, the N protein is a target in some vaccines and diagnostic assays¹². The N protein also has therapeutic potential, as it evades RNAi-mediated antiviral responses¹³.

Product Info

Amount :	50 µg Concentration: 0.5 mg/ml
Content :	Formulation: This HRP-conjugated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4, 1% BSA. (Warning: Use of sodium azide as a preservative will inhibit the enzyme activity of horseradish peroxidase)
Storage condition :	This horseradish peroxidase conjugated monoclonal antibody is stable when stored at 2-8°C. Do not freeze.