

12-8455: Anti-SARS-CoV-2 Nucleocapsid (N) (Clone NP2-F6) Biotin

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| Clonality : | Monoclonal |
| Clone Name : | NP2-F6 |
| Application : | ELISA |
| Alternative Name : | COV2-NP2-F6, 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 NP2-F6, specifically targets an epitope on the SARS-CoV-2 nucleocapsid 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 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). SARS-CoV-2 belongs to the Coronaviridae family, and its single-stranded, positive-sense RNA genome shares 79.6% identity with SARS-CoV1. The spike (S), envelope (E), membrane (M), and nucleocapsid proteins (N) are four essential structural proteins of SARS-CoV-2. The 46 kDa N protein is highly conserved and shares 90% homology with SARS-CoV3. Similar to SARS-CoV, SARS-CoV-2 has an N-terminal (NTD) and C-terminal domain (CTD), linked by a linker region. The NTD binds to RNA, while the CTD self-oligomerizes^{4,5}, aiding viral genome packaging into a helical ribonucleoprotein complex⁶. The N protein also participates in viral transcription, replication, and modulation of cell signaling pathways^{7,8}. Some vaccine and diagnostic assays⁹ have focused on the N protein as it is highly expressed during infection and activates antibodies^{3,10} and memory T cells^{11,12}, found in convalescent sera. The N-protein also evades the innate immune system by inhibiting RNAi¹³, identifying it as a potential therapeutic target.

Product Info

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| Amount : | 50 µg |
| | Concentration:0.5 mg/ml |
| Content : | Formulation: This Biotinylated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative. |
| Storage condition : | This biotinylated antibody is stable when stored at 2-8°C. Do not freeze. |