Anti-SARS-CoV-2 Nucleocapsid protein Antibody [A5B10]

HA600007

Product Type: Mouse monoclonal IgG1, primary antibodies

Species reactivity: SARS-CoV-2

Applications: WB, ELISA(Cap)

Molecular Wt: 46 kDa
Clone number: A5B10

Description: The nucleocapsid protein (N-protein) is a structural protein that binds to the coronavirus

RNA genome, thus creating a shell (or capsid) around the enclosed nucleic acid. The N-protein also interacts with the viral membrane protein during viral assembly, assists in RNA synthesis and folding, plays a role in virus budding, and affects host cell responses, including cell cycle and translation. Coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to the formation of the helical nucleocapsid. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. Because of the conservation of the N protein sequence and its strong immunogenicity, the N protein of coronavirus is

chosen as a diagnostic tool.

Immunogen: Recombinant full length protein corresponding to SARS-CoV-2 nucleocapsid protein aa 1-

419.

Positive control: SARS-CoV-2 nucleocapsid protein.

Subcellular location: Virion.

Database links: SwissProt: P0DTC9 SARS-CoV-2

GenBank: QHD43416.1 SARS-CoV-2

Recommended Dilutions:

 $\begin{array}{ll} \textbf{WB} & 0.5\text{-2ug/ml} \\ \textbf{ELISA(Cap)} & 10\text{ng/ml} \end{array}$

Storage Buffer: 1*PBS (pH 7.4).

Storage Instruction: Store at +4 °C after thawing. Aliquot store at -20 °C. Avoid repeated freeze / thaw cycles.

Purity: Protein G affinity purified.



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Images

ELISA Bindnig Assay of N Antibody A5B10 to N protein

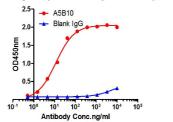


Fig1: The binding activity of HA600007 with Recombinant SARS-CoV-2 Nucleocapsid protein.

Immobilized Recombinant SARS-CoV-2 nucleocapsid protein at 1 μ g/ml overnight at 4°C. Then blocked with 1% BSA for 1 hour at 37°C, and incubated with the primary antibody (HA600007) for 1 hour at 25°C. The EC50 of HA600007 is 11.82 ng/ml.

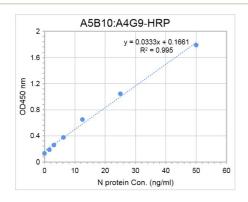


Fig2: This antibody will detect SARS-CoV-2 Nucleocapsid protein in ELISA pair set (Cat: # HA600007). In a sandwich ELISA, it can be used as Capture antibody when paired with (Clone: # A4G9-HRP).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Fan Wu. et. al. A new coronavirus associated with human respiratory disease in China. Nature. 2020 Mar;579(7798):265-269.

