

# Anti-SARS-CoV-2 Nucleocapsid Protein Antibody [A4D12] EM1902-21



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	SARS-CoV-2
<b>Applications:</b>	ELISA, WB
<b>Molecular Wt:</b>	46 kDa
<b>Clone number:</b>	A4D12

**Description:** Coronaviruses are enveloped viruses with a positive-sense RNA genome and with a nucleocapsid of helical symmetry. Coronavirus nucleoproteins localize to the cytoplasm and the nucleolus, a subnuclear structure, in both virus-infected primary cells and in cells transfected with plasmids that express N protein. Coronavirus N protein is required for coronavirus RNA synthesis, and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is a most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to 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 N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.

**Immunogen:** Recombinant SARS-CoV-2 Nucleocapsid Protein.

**Positive control:** ELISA: Recombinant SARS-CoV-2 Nucleocapsid Protein. WB: N-terminal His tag-tagged SARS-CoV-2 Nucleocapsid protein and inactivated native SARS-CoV-2 lysate.

**Subcellular location:** Virion, Host endoplasmic reticulum-Golgi intermediate compartment, Host Golgi apparatus.

**Database links:** SwissProt: P0DTC9  
Gene ID: 1805293653

**Recommended Dilutions:**  
**ELISA** Use at an assay dependent concentration.  
**WB** 1:500-1:5,000

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein G affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

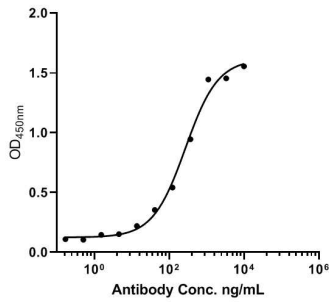
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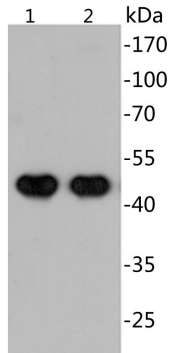
## Images

ELISA Binding Assay of anti-SARS-CoV2 Nucleocapsid Antibody  
A4D12 Binding to SARS-CoV2 Nucleocapsid Fusion Protein



**Fig1:** The binding activity of EM1902-21 with SARS-CoV-2 Recombinant Nucleocapsid protein.

Immobilized SARS-CoV-2 nucleocapsid protein at 1 µg/ml overnight at 4°C. Then blocked with 1% BSA for 1 hour at 37°C, and incubated with the primary antibody (EM1902-21) for 1 hour at 25°C. The EC<sub>50</sub> of EM1902-21 is 271.3 ng/ml.



**Fig2:** Western blot analysis of EM1902-21 with N-terminal His tagged SARS-CoV-2 Nucleocapsid protein (1) and Inactivated SARS-CoV-2 lysate (2) at 20ng.

Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (EM1902-21, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:20,000 dilution was used for 1 hour at room temperature.

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

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