



# Human Anti-SARS-CoV-2 Nucleocapsid monoclonal antibody, clone DI25 (DMABB-JX645)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	This antibody is isolated from a SARS-CoV-2 infected patient and is recombinantly produced from CHO cells.
<b>Specificity</b>	This antibody recognize SARS-CoV-2 Nucleocapsid protein. As verified by binding test with N-NTD and N-CTD protein, this antibody can only bind to N-NTD (AA 44 - 174). ELISA test validated that this antibody can bind multiple N protein variants with similar affinity as compared to the wild type N protein.
<b>Target</b>	N-NTD
<b>Isotype</b>	IgG1
<b>Source/Host</b>	Human
<b>Species Reactivity</b>	SARS-CoV-2
<b>Clone</b>	DI25
<b>Purification</b>	Protein A affinity purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	<p>We recommend the following as antibody pair to detect SARS-CoV-2 nucleocapsid protein in sandwich ELISA or LFIA assay: DMABB-JX645 - DMABB-JX646</p> <p>Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.</p>

<b>Epitope</b>	N-NTD (AA 44 - 174)
<b>Format</b>	Purified, Liquid
<b>Concentration</b>	Lot specific
<b>Size</b>	1 mg
<b>Buffer</b>	0.2 µm filtered solution in PBS, pH7.4
<b>Preservative</b>	None
<b>Storage</b>	For short-term storage, store at 2-8°C. For long-term storage, aliquot and store at -70°C. Avoid multiple freeze-thaw cycles.

## BACKGROUND

<b>Introduction</b>	<p>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. The 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</p>
<b>Keywords</b>	SARS-CoV-2; SARS-CoV-2 N Protein; SARS-CoV-2 NP; SARS-CoV-2 Nucleocapsid Protein