

## 12-8467: Anti-SARS-CoV-2 Nucleocapsid (N) (Clone NP1-D4) Biotin

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	NP1-D4
<b>Application :</b>	ELISA
<b>Alternative Name :</b>	COV2-NP1-D4, SARS-CoV-2 Nucleocapsid, SARS-CoV-2 Nucleoprotein, Protein N, SARS-CoV N Protein
<b>Isotype :</b>	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)<sup>1</sup>. 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) proteins<sup>2</sup>. The N protein is a highly conserved 46 kDa protein that shares 90% homology with SARS-CoV<sup>3</sup>. The N protein has an N-terminal (NTD) and C-terminal domain (CTD), which bind to RNA and self-oligomerize, respectively<sup>4,5</sup>, forming a helical nucleocapsid structure within the viral envelope<sup>6</sup>. Other functions of the N protein included viral transcription, replication, and modulating cell signaling pathways<sup>7,8</sup>. The N protein is abundantly expressed during infection, and antibodies<sup>3,9</sup> and memory T cells<sup>10,11</sup> targeting the N protein have been identified in convalescent sera. Therefore, the N protein is a target in some vaccines and diagnostic assays<sup>12</sup>. The N protein also has therapeutic potential, as it evades RNAi-mediated antiviral responses<sup>13</sup>.

### Product Info

<b>Amount :</b>	50 µg
	Concentration:0.5 mg/ml
<b>Content :</b>	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.
<b>Storage condition :</b>	This biotinylated antibody is stable when stored at 2-8°C. Do not freeze.