

## 12-8456: Anti-SARS-CoV-2 Nucleocapsid (N) (Clone NP2-F6) HRP

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	NP2-F6
<b>Application :</b>	ELISA
<b>Alternative Name :</b>	COV2-NP2-F6, 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 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<sup>4,5</sup>, aiding viral genome packaging into a helical ribonucleoprotein complex<sup>6</sup>. The N protein also participates in viral transcription, replication, and modulation of cell signaling pathways<sup>7,8</sup>. Some vaccine and diagnostic assays<sup>9</sup> have focused on the N protein as it is highly expressed during infection and activates antibodies<sup>3,10</sup> and memory T cells<sup>11,12</sup>, found in convalescent sera. The N-protein also evades the innate immune system by inhibiting RNAi<sup>13</sup>, identifying it as a potential therapeutic target.

### Product Info

<b>Amount :</b>	50 µg Concentration:0.5 mg/ml
<b>Content :</b>	Formulation: This HRP-conjugated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4, 1% BSA. (Warning: Use of sodium azide as a preservative will inhibit the enzyme activity of horseradish peroxidase)
<b>Storage condition :</b>	This horseradish peroxidase conjugated monoclonal antibody is stable when stored at 2-8°C. Do not freeze.