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# Anti-2019-nCoV Nucleoprotein (N)-C-term

Catalog # AP9000a

## Product Information

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|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | P0DTC9 |
| **Host** | Rabbit |
| **Clonality** | polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB69516 |
| **Calculated MW** | 45626 |

## Additional Information

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|---|---|
| **Gene ID** | 43740575 |
| **Other Names** | N nucleocapsid phosphoprotein, YP_009724397.2 |
| **Dilution** | WB~~1:1000 IHC-P~~N/A E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Anti-2019-nCoV Nucleoprotein (N)-C-term is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **Name** | N {ECO:0000255\|HAMAP-Rule:MF_04096} |
| **Function** | Packages the positive strand viral genome RNA into a helical ribonucleocapsid (RNP) and plays a fundamental role during virion assembly through its interactions with the viral genome and membrane protein M (PubMed:33264373). Plays an important role in enhancing the efficiency of subgenomic viral RNA transcription as well as viral replication. Attenuates the stress granules formation by reducing host G3BP1 access to host mRNAs under stress conditions (PubMed:34901782, PubMed:36534661). |
| **Cellular Location** | Virion {ECO:0000255\|HAMAP-Rule:MF_04096}. Host cytoplasm Secreted. Host extracellular space. Note=Probably associates with ER-derived membranes where it participates in viral RNA synthesis and virus budding. When located inside the virion, complexed with the viral RNA Can be secreted by unconventional protein secretion (UPS) (PubMed:35921414). When secreted, |

can bind to host glycosaminoglycans on infected and non infected cells (PubMed:35921414). Found in host cytoplasmic stress granules (PubMed:34901782). {ECO:0000255|HAMAP- Rule:MF_04096, ECO:0000269|PubMed:34901782, ECO:0000269|PubMed:35921414}

## Background

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.