



Catalog Number: AP50283HU

Species: Human

Size: 100 µg

Instruction manual

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

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## Recombinant Human Novel Coronavirus Nucleoprotein (N) Protein

This package insert must be read in its entirety before using this product.

### **If You Have Problems**

Our expert Technical Support Staff is available to assist you in answering your questions and resolving issues to ensure complete customer satisfaction.

### **Please Contact Us**

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In order to obtain higher efficiency service, please ready to supply the lot number of the kit to us (found on the outside of the box).

## **【BACKGROUND】**

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.

## **【GENE NAME SYNONYM】**

SARS-CoV-2 Nucleocapsid Protein; SARS-CoV-2 NP; nucleocapsid protein [Severe acute respiratory syndrome coronavirus 2]; novel coronavirus N Protein; novel coronavirus Nucleocapsid Protein; 2019-nCoV Nucleoprotein; 2019-nCoV N; 2019nCoV N; 2019-nCoV N Protein; 2019 ncov N Protein; 2019-nCoV nucleocapsid protein.

## **【SOURCE】**

Human

## **【HOST】**

*E. coli* 1-419AA.

## **【PROTEIN RESIDUES】**

with N-terminal 6×His-tagged.

### **【PROTEIN SEQUENCES】**

MSDNGPQNQRNAPRITFGGSPDSTGSNQNNGERSGARSKQRRPQGLPNNTA  
SWFTALTQHGKEDLKFPRGQGVPIINTNSSPDDQIGYYRRATRIRGGDGKMK  
DLSPRWYFYLLGTGPEAGLPYGANKDGIIVVATEGALNTPKDHIGTRNPANNA  
AIVLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRSRNSSRNSTPGSSRGTS  
ARMAGNGGDAALALLLLDRLNQLLESKMSGKGQQQQGQTVTKKSAAEASKKP  
RQKRTATKAYNVTQAFGRRGPEQTQGNFGDQELIRQGTDYKHWPQIAQFAPS  
ASAFFGMSRIGMEVTPSGTWLTYTAAIKLDDKDPNFKDQVILLNKHIDAYKTFFP  
TEPKKDKKKKADETQALPQRQKKQQTVTLLPAADLDDFSKQLQQSMSSADST  
QA

### **【PURITY】**

> 90 % as determined by SDS-PAGE.

### **【PREDICTED MOLECULAR MASS】**

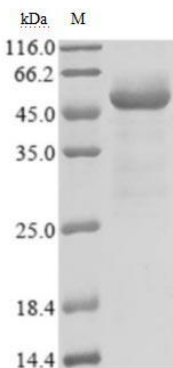
**Predicted MW:** 48 kDa

**Observed MW:** 48 kDa

### **【FORMULATION】**

Lyophilized from a 0.2  $\mu$ m filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.

### **【SDS-PAGE】**



### **【STORAGE】**

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**\*\*Avoid repeated freeze-thaw cycles.\*\***

### **【STABILITY】**

The recombinant protein is stable for up to 12 months from date of receipt at -80°C.

### **【USAGE】**

**2019 ncov N Protein** - Centrifuge the standard vial at 6000-10000rpm for 30s. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.