

SARS-CoV Nucleocapsid Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 40143-V08B

General Information

Gene Name Synonym:

coronavirus NP, coronavirus Nucleocapsid, coronavirus Nucleoprotein, cov np, ncov NP, novel coronavirus NP, novel coronavirus Nucleocapsid, novel coronavirus Nucleoprotein, NP, Nucleocapsid, Nucleoprotein

Protein Construction:

A DNA sequence encoding the human SARS coronavirus (isolate: Tor2) Nucleocapsid (NP_828858.1) (Met1-Ala422) was expressed with a C-terminal polyhistidine tag.

Source: SARS

Expression Host: Baculovirus-Insect cells

QC Testing

Purity: > 80 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human SARS coronavirus Nucleocapsid comprises 433 amino acids and has a predicted molecular mass of 47.5 kDa. The apparent molecular mass of the protein is approximately 47.1 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10 % glycerol, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

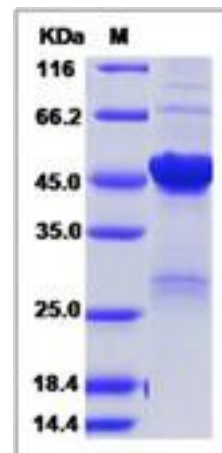
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Coronaviruses are enveloped viruses with a positive-sense RNA genome and with a nucleocapsid of helical symmetry. Coronaviruses primarily cause respiratory and enteric diseases in mammals and birds. Coronaviruses can cause a range of symptoms varying from mild symptoms such as the common cold to more serious respiratory illnesses. They primarily cause respiratory and enteric diseases in mammals and birds. Coronavirus symptoms include rhinorrhea, sneezing, cough, nasal obstruction, bronchitis and so on. There are three main groups of coronaviruses: alpha, beta, and gamma. Proteins that contribute to the overall structure of all coronaviruses are the spike (S), envelope (E), membrane (M) and nucleoprotein (N). 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.

References

1. Van Boheemen S, et al. (2012), MBio. 3(6):e00473-12. 2. Bisht H. et al., 2004, Proc Natl Acad Sci. 101 (17): 6641-6. 3. Li W. et al., 2005, Science. 309 (5742): 1864-8.

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