

SARS-CoV Nucleoprotein / NP Protein (His Tag)

Catalog Number: 40143-V08B



Sino Biological
Biological Solution Specialist

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 SARS-CoV (isolate:Tor2) nucleoprotein (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

Predicted N terminal: Met

Molecular Mass:

The recombinant SARS-CoV nucleoprotein 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

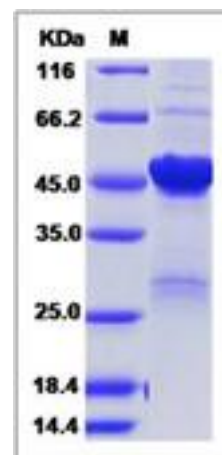
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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. 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.

References

1.1. 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.