SARS-CoV-2 (2019-nCoV) Nucleocapsid-His Recombinant Protein, Biotinylated

Catalog Number: 40588-V07E-B

General Information

Gene Name Synonym:

coronavirus NP; coronavirus Nucleocapsid; coronavirus Nucleoprotein; cov np; ncov NP; NCP-CoV Nucleocapsid; novel coronavirus NP; novel coronavirus Nucleocapsid; novel coronavirus Nucleoprotein; np; nucleocapsid; Nucleoprotein

Protein Construction:

A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) Nucleocapsid Protein (YP_009724397.2) (Met1-Ala419(335Gly/Ala)) was expressed with a polyhistidine tag at the N-terminus. The purified protein was biotinylated in vitro.

Source: 2019-nCoV

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met

Molecular Mass:

The recombinant SARS-CoV-2 (2019-nCoV) Nucleocapsid Protein (His tag) consists of 426 amino acids and predicts a molecular mass of 46.61 kDa.

Formulation:

Lyophilized from sterile PBS, 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℃ to -80℃.

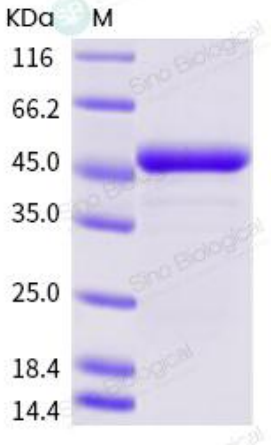
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.