

SARS-CoV-2 B.1.1.529 (Omicron) Nucleocapsid Protein (His Tag)

Catalog Number: 40588-V07E34



General Information

Gene Name Synonym:

Nucleocapsid

Protein Construction:

A DNA sequence encoding the SARS-CoV-2 Nucleocapsid (YP_009724397.2, with mutations P13L, ERS31-33 deletion, R203K, G204R) (Met1-Ala419) was expressed with a polyhistidine tag at the N-terminus. The mutations were identified in the SARS-CoV-2 variant (known as variant B.1.1.529) which emerged in the South Africa.

Source: SARS-CoV-2

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE.
> 95 % as determined by SEC-HPLC.

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met

Molecular Mass:

The recombinant SARS-CoV-2 Nucleocapsid consists of 423 amino acids and predicts a molecular mass of 46.31 kDa.

Formulation:

Lyophilized from sterile 50mM PB, 500mM NaCl, 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.

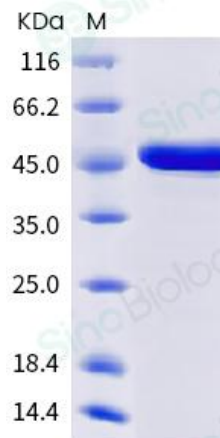
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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. The coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to the 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 the N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.

References

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

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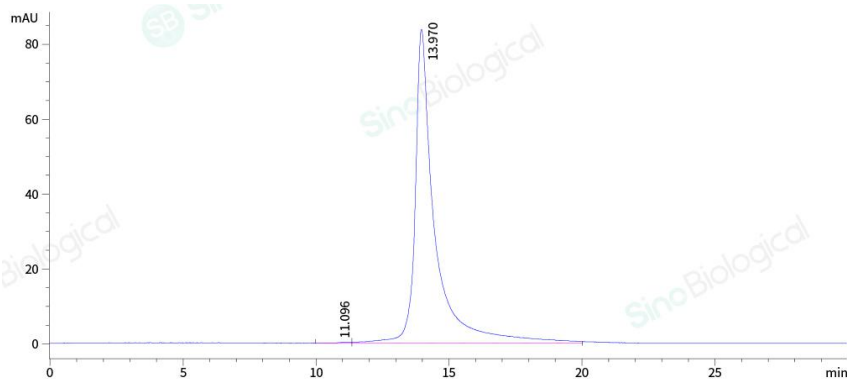
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SEC-HPLC



> 95 % as determined by SEC-HPLC.