Human coronavirus (HCoV-OC43)
Nucleocapsid Protein (His Tag)

Catalog Number: 40643-V07E

General Information

Gene Name Synonym:
NP-CoV

Protein Construction:
A DNA sequence encoding the Human coronavirus (HCoV-OC43) Nucleocapsid (YP_009555245.1) (Met1-Ile448) was expressed with a polyhistide tag at the N-terminus.

Source: HCoV-OC43
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 heterodimer of Human coronavirus (HCoV-OC43) Nucleocapsid consists of 455 amino acids and has a calculated molecular mass of 50.43 KDa.

Formulation:
Lyophilized from sterile 40mM 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. 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


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Tel: +86-400-890-9998 (Global), +1-215-583-7898 (USA), +49(0)6196 9678656 (Europe)
Website: http://www.sinobiological.com