# 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-IIe448) 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.

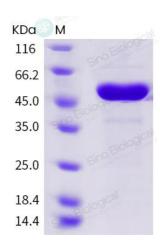
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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

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.