2019-nCoV (COVID-19) Nucleocapsid protein, His Tag

Catalog # AMS.NUN-C51H9

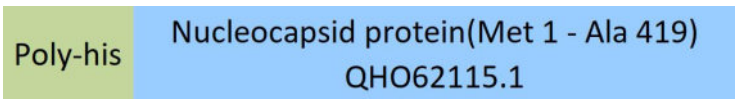
Synonym

Nucleocapsid protein,NP,Protein N,COVID-19

Source

2019-nCoV (COVID-19) Nucleocapsid protein, His Tag (AMS.NUN-C51H9) is expressed from E.coli cells. It contains AA Met 1 - Ala 419 (Accession #QHO62115.1). Predicted N-terminus: Met

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 49.4 kDa. The protein migrates as 53-55 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, Arginine, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

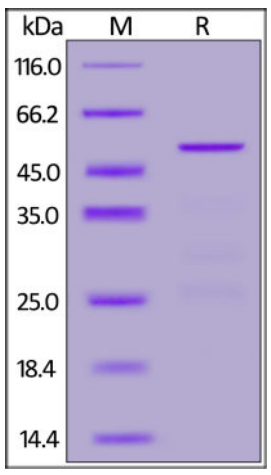
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



2019-nCoV (COVID-19) Nucleocapsid protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue.
The purity of the protein is greater than 90%.

Background

Nucleocapsid protein is a most abundant protein of coronavirus. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. While screening for ADP-ribosylated proteins during coronavirus (CoV) infection, we identified as the viral nucleocapsid (N) protein. Novel post-translation modification of the CoV N protein that may play a regulatory role for this important structural protein. The array of diverse functional activities accommodated in the hantaviral N protein goes far beyond to be a static structural protein and makes it an interesting target in the development of antiviral therapeutics. 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) Reuter M, et al. Virus Genes. 2018. 54(1):5-16.

(2) Grunewald ME, et al. Virology. 2018. 517:62-68.

(3) Jeeva S, et al. PLoS One. 2017. 12(9):e0184935.

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