

SARS-CoV-2 (2019-nCoV) NSP9-His & AVI Recombinant Protein

Catalog Number: 40619-V40E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Coronavirus NSP9 Replicase

Protein Construction:

A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) NSP9 Protein (YP_009725305.1) (His1-Lys113) was expressed with a polyhistidine tag at the N-terminus and a c-terminal AVI tag.

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) NSP9 Protein consists of 140 amino acids and predicts a molecular mass of 15.46 kDa.

Formulation:

Lyophilized from sterile 50mM Tris, 150mM NaCl, 2mM βME, 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.

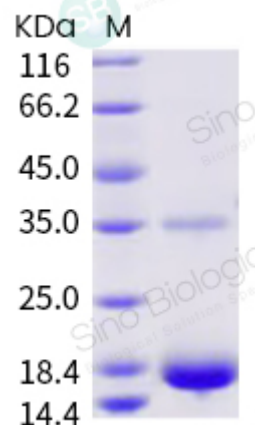
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Non-structural protein 9 (nsp9 replicase protein) is encoded by ORF1a which has no designated function but is identified as an essential protein with RNA/DNA-binding activity for coronavirus replication. Nsp9 forms a dimer through the interaction of parallel alpha-helices containing the protein-protein interaction motif GXXXG. The mechanisms of the dimerization and nucleic acid binding of nsp9 remain unknown.

References

1. Sutton G, et al. , The nsp9 replicase protein of SARS-coronavirus, structure and functional insights. *Structure*. 2004
2. Miknis ZJ, et al. , Severe acute respiratory syndrome coronavirus nsp9 dimerization is essential for efficient viral growth. *J Virol*. 2009
3. Zeng Z, et al. , Dimerization of Coronavirus nsp9 with Diverse Modes Enhances Its Nucleic Acid Binding Affinity. *J Virol*. 2018