

PRODUCT INFORMATION



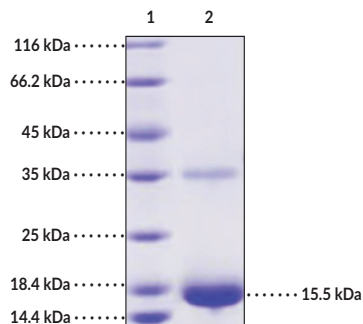
SARS-CoV-2 nsp9 (recombinant)

Item No. 31978

Overview and Properties

Synonyms: 2019-nCoV nsp9, COVID-19 nsp9, Severe Acute Respiratory Syndrome Coronavirus 2 nsp9
Source: Recombinant SARS-CoV-2 N-terminal His-tagged and C-terminal AVI-tagged nsp9 expressed in *E. coli*
Amino Acids: 1-113
Molecular Weight: 15.5 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥90% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile 50 mM Tris, pH 7.4, with 150 mM NaCl, and 2 mM βME
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: SARS-CoV-2 nsp9 (recombinant)

SDS-PAGE Analysis of SARS-CoV-2 nsp9 (recombinant). This protein has a calculated molecular weight of 15.5 kDa.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped positive-stranded RNA virus and the causative agent of COVID-19, a primarily respiratory illness characterized by fever, cough, and shortness of breath that can lead to life-threatening complications.¹⁻⁵ The SARS-CoV-2 genome contains approximately 30 kilobases and 14 open reading frames (ORFs) that encode four structural proteins: spike, envelope, membrane, and nucleocapsid, as well as 16 non-structural proteins and 9 accessory factors.⁶ SARS-CoV-2 non-structural protein 9 (nsp9) is an RNA binding protein. In the related virus SARS-CoV, nsp9 is highly conserved and important for RNA binding and viral replication.⁷ SARS-CoV-2 nsp9, like the nsp9 of SARS-CoV, forms dimers and contains a unique fold region not found in other CoVs. Cayman's SARS-CoV-2 nsp9 (recombinant) protein consists of 140 amino acids and has a calculated molecular weight of 15.5 kDa.

References

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2. Lu, R., Zhao, X., Li, J., *et al.* Genomic characterisation and epidemiology of 2019 novel coronavirus: Implications for virus origins and receptor binding. *Lancet* **395**(10224), 565-574 (2020).
3. Meo, S.A., Alhowikan, A.M., Al-Khlaiwi, T., *et al.* Novel coronavirus 2019-nCoV: Prevalence, biological and clinical characteristics comparison with SARS-CoV and MERS-CoV. *Eur. Rev. Med. Pharmacol. Sci.* **24**(4), 2012-2019 (2020).
4. Klok, F.A., Kruip, M.J.H.A., van der Meer, N.J.M., *et al.* Incidence of thrombotic complications in critically ill ICU patients with COVID-19. *Thromb. Res.* **191**, 145-147 (2020).
5. Yang, F., Shi, S., Zhu, J., *et al.* Analysis of 92 deceased patients with COVID-19. *J. Med. Virol.* (2020).
6. Romano, M., Ruggiero, A., Squeglia, F., *et al.* A structural view of SARS-CoV-2 RNA replication machinery: RNA synthesis, proofreading and final capping. *Cells* **9**(5), 1267 (2020).
7. Littler, D.R., Gully, B.S., Colson, R.N., *et al.* Crystal structure of the SARS-CoV-2 non-structural protein 9, Nsp9. *iScience* **23**(7), 101258 (2020).