

PRODUCT INFORMATION



SARS-CoV-2 Spike Glycoprotein S2 Subunit

Item No. 31815

Overview and Properties

Synonyms: 2019-nCoV Surface Glycoprotein S2 Subunit, COVID-19 Spike Glycoprotein S2 Subunit, SARS-CoV-2 Spike Glycoprotein S2 Subunit, Severe Acute Respiratory Syndrome Coronavirus 2 Spike Glycoprotein S2 Subunit

Source: Recombinant C-terminal mouse IgG1 Fc-tagged SARS-CoV-2 surface glycoprotein S2 subunit expressed in insect cells

Amino Acids: 686-1,213

Uniprot No.: PODTC2

Molecular Weight: 84.3 kDa

Storage: -80°C (as supplied)

Stability: ≥1 year

Purity: ≥95% estimated by SDS-PAGE

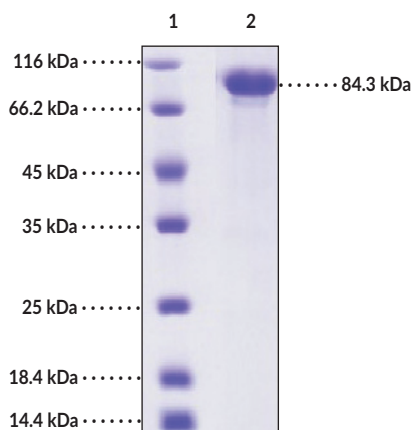
Supplied in: Lyophilized from sterile 20 mM Tris, pH 7.0, 300 mM sodium chloride, and 100 mM glycine

Endotoxin Testing: <1.0 EU/g, determined by the LAL endotoxin assay

Protein Concentration: *batch specific* mg/ml

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 Spike Glycoprotein S2 Subunit

SDS-PAGE Analysis of SARS-CoV-2 Spike Glycoprotein S2 Subunit

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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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped positive-stranded RNA virus, a member of the *Betacoronavirus* genus, and the causative agent of COVID-19.¹⁻⁵ The SARS-CoV-2 spike glycoprotein, also known as the surface glycoprotein, is a viral structural protein encoded by the S gene in SARS-CoV-2 RNA.¹ It is composed of an S1 and S2 subunit divided by a furin S-cleavage site not found in other SARS-CoVs.^{6,7} The C-terminal S2 subunit, which facilitates fusion between viral and host cell membranes, contains a fusion peptide (FP) and two heptad repeats (HRs), as well as transmembrane and cytoplasmic domains.^{7,8} Upon insertion of the FP in the target cell membrane, the HRs form a six-helical bundle (6-HB) that enables SARS-CoV-2 to fuse with the target cell. The SARS-CoV-2 spike glycoprotein S2 subunit increases amyloid- β (1-40) (A β 40) and A β 42 levels in primary mouse neuron culture supernatants and the number of hippocampal and cortical A β plaques in APPswe/PSEN1dE9 transgenic mice.⁹ Cayman's SARS-CoV-2 Spike Glycoprotein S2 Subunit protein is a disulfide-linked homodimer. The reduced monomer, composed of the SARS-CoV-2 spike glycoprotein S2 subunit (amino acids 686-1,213) fused to mouse IgG1 Fc at its C-terminus, consists of 762 amino acids and has a calculated molecular weight of 84.3 kDa.

References

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
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CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM