

# Recombinant 2019-nCoV Spike Protein S1 (N501Y, D614G), His-tagged

Cat. No. S-51S Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant 2019-nCoV Spike protein S1 (N501Y, D614G) (16-685) was expressed in CHO cells using a C-terminal His-tag.

**Species** SARS-CoV-2

**Source** CHO

**ProteinLength** 16-685

### Description

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped, positive-sense, single-stranded RNA virus that causes coronavirus disease 2019 (COVID-19). Virus particles include the RNA genetic material and structural proteins needed for invasion of host cells. Once inside the cell the infecting RNA is used to encode structural proteins that make up virus particles, nonstructural proteins that direct virus assembly, transcription, replication and host control and accessory proteins whose function has not been determined.~ The structural proteins of SARS-CoV-2 include the envelope protein (E), spike or surface glycoprotein (S), membrane protein (M) and the nucleocapsid protein (N). The spike glycoprotein is found on the outside of the virus particle and gives coronavirus viruses their crown-like appearance. This glycoprotein mediates attachment of the virus particle and entry into the host cell. S protein is an important target for vaccine development, antibody therapies and diagnostic antigen-based tests.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                       |  |
|-----------------------|--|
| <b>Molecular Mass</b> | Approx 130 kDa (calculated ~76 kDa)  |
| <b>Purity</b>         | > 90%  |
| <b>Stability</b>      | One year at -70 centigrade from data of shipment.  |
| <b>Storage</b>        | Store product at -70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |
| <b>Concentration</b>  | 1 µg/µL  |
| <b>Storage Buffer</b> | Recombinant protein stored in 50 mM sodium phosphate, pH 7.5, 300 mM NaCl, 150 mM imidazole.   |
| <b>Shipping</b>       | Dry ice  |

## GENE INFORMATION

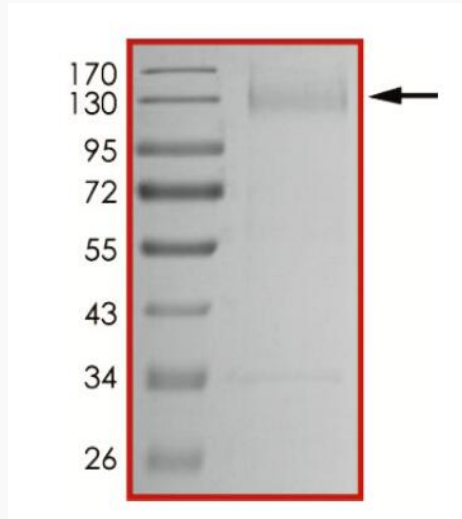
|                        |  |
|------------------------|--|
| <b>Gene Name</b>       | S surface glycoprotein [ Severe acute respiratory syndrome coronavirus 2 ]                           |
| <b>Official Symbol</b> | S  |
| <b>Synonyms</b>        | S; surface glycoprotein; spike glycoprotein; surface glycoprotein; structural protein; spike protein |
| <b>Gene ID</b>         | 43740568   |
| <b>mRNA Refseq</b>     | MN908947   |
| <b>Protein Refseq</b>  | YP_009724390   |

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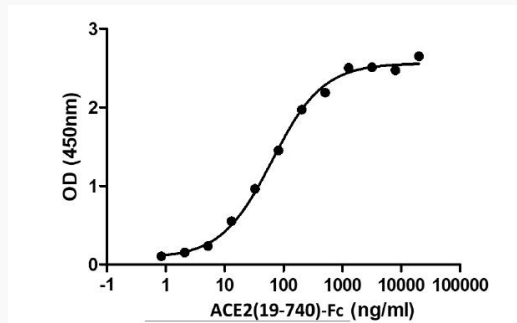
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**SDS-PAGE**



The purity of nCoV-S1 (N501Y, D614G) was determined to be >90% by densitometry

**Activity**



Binding of ACE2 (19-740) protein to immobilized 2019-nCoV spike protein S1 ( $\Delta$ 69-70) was determined by functional ELISA.

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