

## Recombinant SARS-CoV-2 Spike Trimer (S1+S2) (B.1.1.7, Alpha Variant), C-His-tagged

Cat. No. Spike-05S    Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Recombinant SARS-CoV-2 Spike protein in its homotrimeric form, containing S1+S2 subunits and encompassing amino acids 16-1213. This protein corresponds to SARS-CoV-2 Variant B.1.1.7, also known as variant Alpha originally discovered in the United Kingdom. It contains mutations N501Y, A570D, D614G, P681H, T716I, S982A, D1118; deletions: 21765:6 (69-70HV), 21991:3 (144Y). The construct also contains mutations 682RRAR685>A, K986P and V987P, and a T4 trimerization domain followed by a His-tag (6×His) in C-terminal. The recombinant protein was affinity purified.

#### Species

SARS-CoV-2

#### Source

HEK293

#### 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

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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.

|                       |                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Aqueous buffer solution.                                                                                                                                                                           |
| <b>Molecular Mass</b> | 137 kDa                                                                                                                                                                                            |
| <b>AA Sequence</b>    | 16-1213                                                                                                                                                                                            |
| <b>Purity</b>         | ≥90%                                                                                                                                                                                               |
| <b>Usage</b>          | Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles. |
| <b>Storage</b>        | At least 6 months at -80 centigrade.                                                                                                                                                               |
| <b>Storage Buffer</b> | 8 mM phosphate pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol.                                                                                                                                  |
| <b>Shipping</b>       | -80 centigrade                                                                                                                                                                                     |
| <b>Warning</b>        | Avoid freeze/thaw cycles.                                                                                                                                                                          |

## 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; structural protein; spike protein                 |

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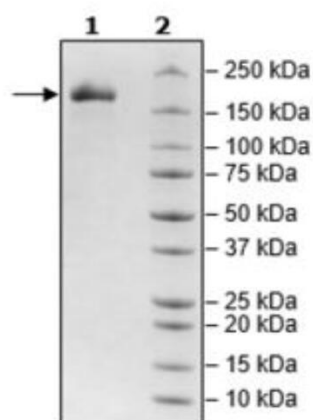
Gene ID 43740568

Protein Refseq YP\_009724390

UniProt ID P0DTC2

SDS-PAGE

4-20% SDS-Page Coomassie Staining



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