

Recombinant SARS-CoV-2 Spike Trimer (S1+S2) (B.1.1.529 BA.1, Omicron Variant), C-His-tagged

Cat. No. Spike-04S **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.1.1.529 BA.1 also known as variant Omicron originally identified in South Africa, and contains A67V, Δ69-70, T95I, G142D, Δ143-145, Δ211, L212I, Ins214EPE, G339D, S371L, S373P, S375F, K417N, N440K, G446S, S477N, T478K, K484A, Q493R, G496S, Q498R, N501Y, Y505H, T547K, D614G, H655Y, N679K, P681H, N764K, D796Y, N856K, Q954H, N969K, L981F mutations. 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

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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.

Form	Aqueous buffer solution
Molecular Mass	137 kDa + glycans
AA Sequence	16-1213
Purity	0.8
Applications	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Usage	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.
Storage	At least 6 months at -80 centigrade.
Storage Buffer	8 mM phosphate pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol.
Shipping	-80 centigrade
Warning	Avoid freeze/thaw cycles.

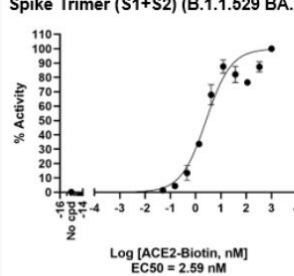
GENE INFORMATION

Gene Name S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]

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Official Symbol	S
Synonyms	S; surface glycoprotein; structural protein; spike protein
Gene ID	43740568
Protein Refseq	YP_009724390
UniProt ID	P0DTC2
Activity	Spike Trimer (S1+S2) (B.1.1.529 BA.1, Omicron Variant) Activity  Log [ACE2-Biotin, nM] EC50 = 2.59 nM
SDS-PAGE	4-20% SDS-Page Coomassie Staining 