

Recombinant SARS-CoV-2 S Protein, His/SUMO-tagged

Cat. No. S-23S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV S protein HR1 Protein is produced by our E.coli expression system and the target gene encoding Gly910-Glu988 is expressed with a 6His, Sumo tag at the N-terminus.
Species	SARS-CoV-2
Source	E.coli
ProteinLength	910-988 a.a.
Description	The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. After binding of RBD in S1 subunit of S protein on the virion to the ACE2 receptor on the target cell, the heptad repeat 1 (HR1) and 2 (HR2) domains in its S2 subunit of S protein interact with each other to form a six-helix bundle (6-HB) fusion core, bringing viral and cellular membranes into close proximity for fusion and

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	infection. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.
Form	Supplied as a 0.2 µm filtered solution of PBS, PH7.4.
Molecular Mass	Predicted Molecular Weight: 20.8kDa Apparent Molecular Weight: 25kDa, reducing conditions.
AA Sequence	Gly910-Glu988
Endotoxin	Less than 0.1 ng/ug (1 EU/ug).
Purity	> 95% by reducing SDS-PAGE.
Applications	Immunogen, calibrator or standard.
Storage	Store at < -20 centigrade, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Quality Statement	Purity: greater than 95% as determined by reducing SDS-PAGE.
Shipping	The product is shipped on dry ice pack. Upon receipt, store it immediately at the temperature listed below.

GENE INFORMATION

Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	2019-nCoV S Protein HR1; 2019-nCoV S Protein heptad repeats 1 region

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Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

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