



SARS-CoV-2 (COVID-19) S Protein HR1 Recombinant Protein

Cat. No.: 92-760



Ψ Specifications

SPECIES:	SARS-CoV-2 (COVID-19) Spike Protein
SOURCE SPECIES:	E. coli
SEQUENCE:	Gly910-Glu988
FUSION TAG:	N-6His-Sumo tag
APPLICATIONS:	This recombinant protein can be used for biological assays. For research use only.
PREDICTED MOLECULAR WEIGHT:	20.8kDa, 25kDa

Ψ Properties

PURITY:	Greater than 95% as determined by reducing SDS-PAGE.
PHYSICAL STATE:	Liquid
BUFFER:	Supplied as a 0.2 uM filtered solution of PBS, pH 7.4
STORAGE CONDITIONS:	Reconstituted protein solution should be store below -20 °C.

OFFICIAL SYMBOL:	S
ACCESSION NO.:	QHD43416.1
GENE ID:	43740568

 Background and References

BACKGROUND:	<p>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 infection. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.</p>
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