

Recombinant COVID-19 S1 protein

Cat. No. S1-135V **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant COVID-19 S1 protein(Gln14-Arg685) was expressed in Human Cells and purified by affinity purification chromatography.
Species	Sars-CoV-2
Source	Human Cells
ProteinLength	Gln14-Arg685
Description	Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2, DPP4, CEACAM etc.. 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 COVID-19 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. The S protein plays key parts in the induction of neutralizing-

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	antibody and T-cell responses, as well as protective immunity.
Form	Supplied as a 0.2 µM filtered solution of PBS, pH 7.4.
Molecular Mass	Mol Mass: 78.3 kDa; AP Mol Mass: 100-130 kDa, reducing conditions.
Purity	Greater than 85% as determined by reducing SDS-PAGE.
Applications	Immunogen, calibrator or standard.
Storage	Reconstituted protein solution should be stored at ≤ -20 centigrade.
Shipping	The product is shipped on dry ice pack. Upon receipt, store it immediately at the temperature listed below.
Warning	FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

GENE INFORMATION

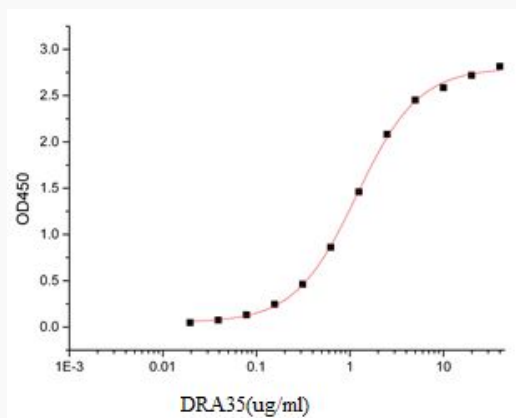
Gene Name	S
Official Symbol	S
Synonyms	GU280_gp02
Gene ID	43740568
Protein Refseq	YP_009724390.1

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Bioactivity of S1-135V



Immobilized Human ACE-2-Fc at 10µg/ml (100 µl/well) can bind COVID-19 S1 Protein*. *: Biotinylated by NHS-biotin prior to testing. The ED50 of COVID-19 S1 Protein* is 1.18 ug/ml.