

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

Cat. No. S-29S Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant SARS-CoV-2 (2019-nCoV) S1 Protein is produced by our Mammalian expression system and the target gene encoding Gln14-Arg685 is expressed.

Species

SARS-CoV-2

Source

Human Cells

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 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. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

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Form	Supplied as a 0.2 µm filtered solution of PBS, PH7.4.
Molecular Mass	Predicted Molecular Weight: 78.3kDa Apparent Molecular Weight: 100-130kDa, reducing conditions.
AA Sequence	Gln14-Arg685
Endotoxin	Less than 0.1 ng/ug (1 EU/ug).
Purity	> 85%
Storage	Reconstituted protein solution should be stored at ≤ -20 centigrade.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Statement	Purity: > 85% as determined by reducing SDS-PAGE.
Shipping	The product is shipped on dry ice pack.
GENE INFORMATION	
Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	S1 protein; 2019-nCoV S1 protein; coronavirus S1 Protein; cov S1 Protein
Gene ID	43740568

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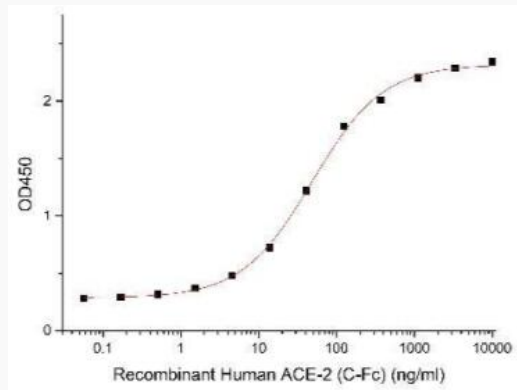
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Protein Refseq YP_009724390.1

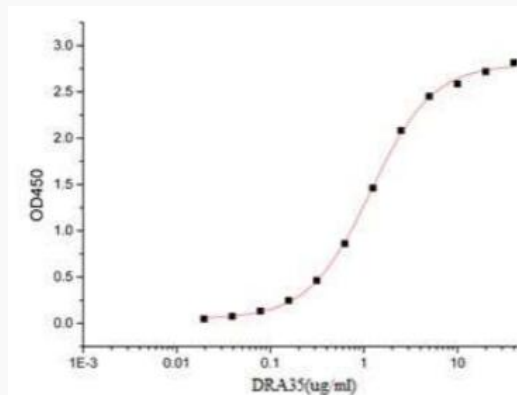
UniProt ID P0DTC2

Bioactivity



Immobilized 2019-nCoV S1 Protein at 2 μ g/ml (100 μ l/well) can bind Human ACE-2-Fc. The ED50 of Human ACE-2-Fc is 49 ng/ml.

Bioactivity



Immobilized Human ACE-2-Fc at 10 μ g/ml (100 μ l/well) can bind 2019-nCoV S1. The ED50 of 2019-nCoV S1 Protein* is 1.18 μ g/ml.

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