SARS-CoV-2 Spike S1 protein

Receptor binding domain (RBD)

Cat. no. P2020-028

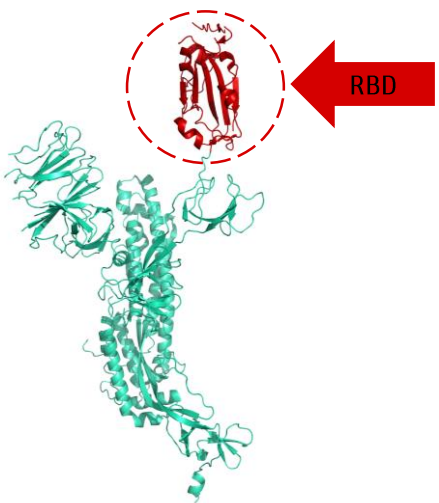
Product Information

Protein:	SARS-CoV-2 S1(RBD), tag removed (~ 25.8 kDa)
Sequence:	MRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTF KCYGVSPTKLNDLCFTNVYADSFVIRGDEVRQIAPGQTGKIADYNYKLPDDFTGCVIAWN SNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYGF QPTNGVGYQPYRVVVLSFELLHAPATVCGPKKSTNLVKNKCVNF Methionine at pos. 1 present due to cloning constraints. C-terminal extension remaining after proteolytic digest not shown in sequence.
Source:	Recombinantly expressed in HEK293 cells.
Tag(s):	tag-free; His-Tag removed by proteolytic digest
Purification:	Purified by affinity chromatography and subsequent buffer exchange. C-terminal His-tag removed by Thrombin cleavage (cleavage reaction purified by inverse affinity chromatography).
Formulation:	PBS; pH 7.4 Liquid, stored and shipped at -80 °C.
Purity:	> 85 % (will be determined by densitometry of Coomassie stained gel, example next page)
Concentration:	Will be determined by BCA-Assay.
Long-term storage:	No recommendations.
Comment:	Protein migrates at higher molecular weight during SDS-PAGE due to posttranslational modifications.

Background Information:

The spike (S) glycoprotein of coronaviruses is essential for binding of the virus to the host cell at the beginning of the infection process. The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein is responsible for membrane fusion and is therefore required for virus entry and cell fusion. The target protein is also a major immunogen and a possible target for entry inhibitors.

The SARS-CoV-2 spike (S) protein is a large type I transmembrane protein composed of two subunits, S1 and S2. The S1 subunit contains a receptor-binding domain (RBD) responsible for binding to the host cell receptor angiotensin-converting enzyme 2 (ACE2). The S2 subunit mediates fusion between the viral and host cell membranes. The S1 RBD protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.



Structural model of the spike protein of SARS-CoV-2 with its receptor binding domain (RBD) highlighted (red).

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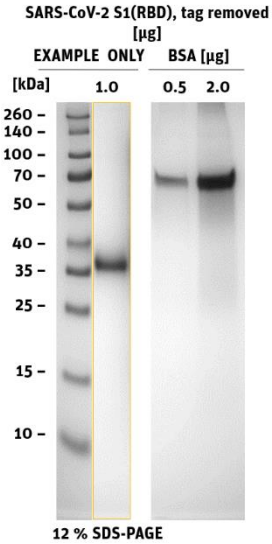
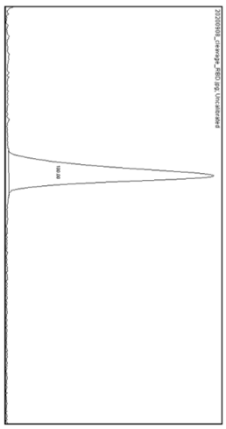
Product Information

Quality Information (provided for each lot):



SDS-PAGE/Coll.Coomassie



	Area	Percent
1	13781.387	100

Histogram (of marked lane in gel picture)