

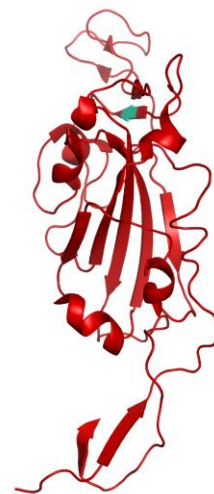
## Product Information

Protein:	SARS-CoV-2 S1 (RBD) (Y453F), His-tag (~ 27.5 kDa)
Sequence:	MRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTFNYYADSFVIRGDEVRQIAPGQTGKIADYNYKLPDDFTGCVIAWN SNNLDSKVGGNYYL <u>E</u> RLFRKSNLKPFRDISTEIQAGSTPCNGVEGFNCYFPLQSYGF QPTNGVGYQPYRVVVLSELLHAPATVCGPKKSTNLVKNKCVNF
	Methionine at pos. 1 present due to cloning constraints, C-terminal His-tag not shown in sequence. <u>X</u> indicates the mutation site.
Source:	Recombinantly expressed in HEK293 cells.
Tag(s):	His-tag, C-terminal
Purification:	Purified by affinity chromatography and subsequent buffer exchange.
Formulation:	PBS; pH 7.4 Liquid, stored and shipped at -80 °C.
Purity:	> 80 % (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 target protein is also a major immunogen and a possible target for entry inhibitors.

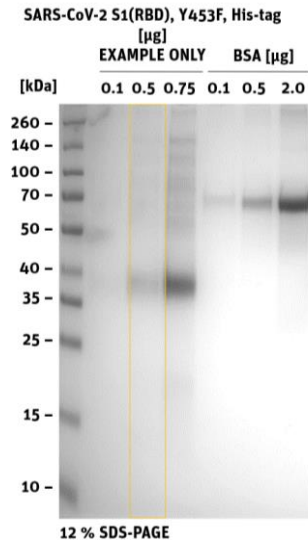
The SARS-CoV-2 spike (S) protein is a large type I transmembrane protein composed of two subunits, S1 and S2. The S1 subunit contains a receptor-binding domain (RBD) responsible for binding to the host cell receptor angiotensin-converting enzyme 2 (ACE2). Several mutants of the spike protein are known. A mutation first discovered in Denmark, called "Cluster 5", also known as the  $\Delta$ FVI-spike, is related to four genetic changes. This mutation (Y453F) is located in a conservative region of the RBD directly involved in ACE2 binding and thereby could have implications for viral fitness, transmissibility, and antigenicity.



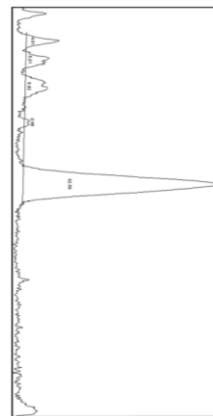
*Structural model of the receptor binding domain (RBD) of the spike protein. The location of the mutated part is highlighted in green.*

## Product Information

Quality Information (provided for each lot):



SDS-PAGE/Coll.Coomassie



Histogram (of marked lane in gel picture)

	Area	Percent
1	997.920	4.812
2	1038.870	5.010
3	1435.941	6.924
4	137.728	0.664
5	17126.983	82.590