

SARS-CoV-2 Spike S1
Receptor-Binding Domain (S1RBD)
[Expressed in HEK293 cell]

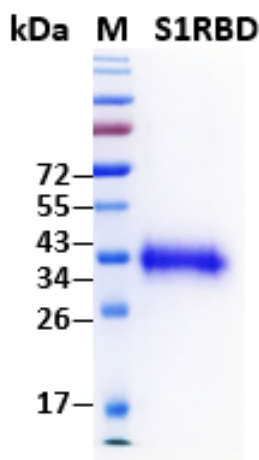
Origin: Recombinant
Source: HEK293
Tag: His at C-terminus
Cat No. 41A231
Size: 100 µg
Purity: >95%
Endotoxin: <5 EU/mg, determined by the LAL method

Introduction to the molecule

The SARS-CoV-2 glycosylated spike (S) protein highly exposed on the viral surface is a major determinant for virus binding and invasion into host cells, which is a main target for neutralization antibody. The receptor-binding domain (RBD) in SARS-CoV-2 S protein is responsible for binding to human and bat angiotensin-converting enzyme 2 (ACE2) receptors.

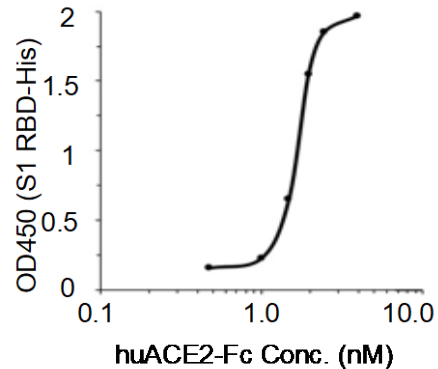
Product information

Recombinant SARS-CoV-2 Spike Protein (RBD) consists of 234 amino acids (Arg319-Phe541) with C-terminal His-tag. It has an apparent molecular mass of ~25 kDa in SDS-PAGE. The concentration of protein was determined by BCA.



Bioactivity & antigenicity: Strong binding ability with human ACE2 protein and binding capacity to a human anti-S1RBD monoclonal antibody (determined by ELISA).

Human ACE2 binding assay



S1 RBD monoclonal antibody binding assay

Anti-S1 RBD Conc. (ng/ml)	OD450
0	0.184
2	0.214
20	0.318
200	0.653
2000	0.966

Formulation and Reconstitution:

The protein is lyophilized in PBS, PH 7.4. Add appropriate volume of PBS into the tube and let the pellet dissolve completely. For example, adding 100 ul of PBS to make a final concentration of 1 mg/ml.

Storage:

Store at -80°C. Recommend to aliquot the protein into smaller quantities. Avoid repeated freeze-thaw cycles.

Reference

Shajahan A, *et al.* (2020) Deducing the N- and O-glycosylation profile of the spike protein of novel coronavirus SARS-CoV-2. bioRxiv, <https://doi.org/10.1101/2020.04.01.020966>.