Receptor-Binding Domain (S1RBD) [Expressed in HEK293 cell]

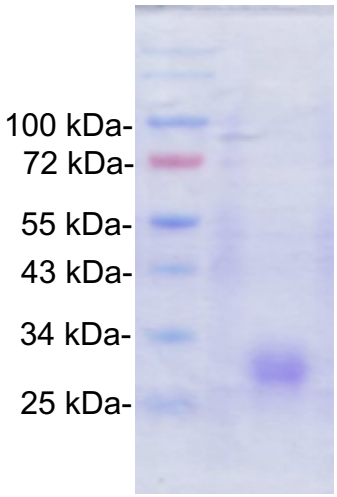
Origin: Recombinant
Source: HEK293
Tag: His at C-terminus
Cat No. 41A231
Size: 100 μg
Purity: >95%
Endotoxin: <5 EU/mg, determined by the LAL method

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 hose 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.

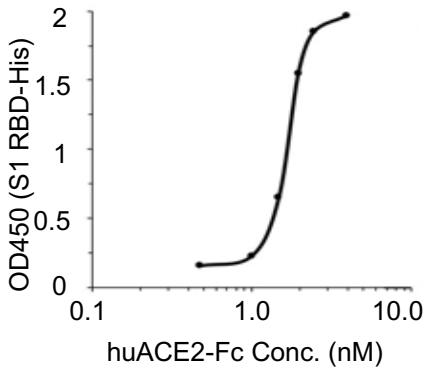
Product information

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-S1 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 storage: Lipid in PBS, PH7.4. 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.

Website: www.torontobioscience.com
Brett Wang (Covid-19 Business Development Manager)
brett.wang@torontobioscience.com or sales@torontobioscience.com
Tel: (+1) 416 417 8573