SARS-CoV-2 Spike Protein S1 Receptor-Binding Domain (S1RBD)

Origin:	Recombinant	**Cat No.**	41A221
Source:	E.*coli*	**Size:**	0.1 mg
Tag:	No Tag	**Purity:**	>95%

Introduction

Since December 2019, outbreak of COVID-19 infection has become a major epidemic threat in China and brought back the attention of pathogenic coronavirus to the spotlight. Spike protein is an envelope anchored protein that mediates the recognition and binding of COVID-19 to host cells. S1 can be further cleaved by the host protease into two subunits called S1 and S2, wherein the S1 polypeptide contain a receptor binding domain (RBD) crucial for the specific recognition and interaction with human receptor ACE2, which is the first and the most essential step for the virus infection.

Description

Expressed in E.coli with total 194 AA. Mw: 21.8 KDa (calculated).
Recombinant antigen for research use or manufacturing only.

Antigenicity Test

Antigenicity validated in patient serum samples via ELISA test by coating SARS-CoV-2 S1RBD as capture antigen.
Antiginetic response even in 900-fold diluted patient serum.

Amino Acid Sequence

NITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIR
GDEVRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQA
GSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVLSFELLHAPATV

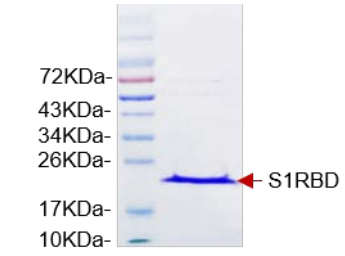
Formulation

As liquid with vials containing S1RBD to 1.8 mg/mL in 50mM Tris, 300mM NaCl, 10% Glycerol, PH8.0.

Quality Control Test

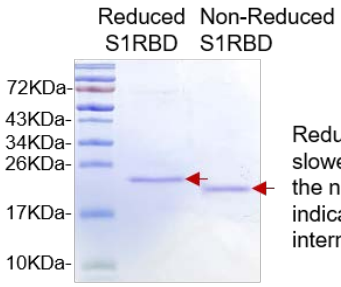
BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.

SDS-PAGE Gel



S1 Receptor Binding Domain (S1RBD) of SARS-CoV-2

SDS-PAGE Analysis of Reduced and Non-reduced S1RBD



Reduced S1RBD showed slower mobility compared to the non-reduced one, indicating the existence of internal S-S bridge in S1RBD.