For Research Use Only

## SARS-CoV-2 S protein (RBD, 319-541 aa) Monoclonal antibody

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Catalog Number:67758-1-lg 15 Publications

**Basic Information** 

Catalog Number: 67758-1-lg Concentration: 1000 ug/ml

Source: F
Mouse S
Isotype: C
IgG1 S

Immunogen Catalog Number:

AG30688

GenBank Accession Number:

NC\_045512 GeneID (NCBI): 43740568 Full Name:

SARS-CoV-2 Spike Protein

Calculated MW: 141 kDa Purification Method: Protein G purification

CloneNo.: 1H3E9

Recommended Dilutions:

WB: 1:5000-1:50000 Neutralization: 1:10-1:100

**Applications** 

Tested Applications: WB, Neutralization, ELISA Cited Applications:

Cited Applicatio

WB, IF

Species Specificity:

virus

Cited Species: human, mouse

Positive Controls:

WB: Ag30688,

Neutralization: Recombinant protein,

## **Background Information**

Coronaviruses (CoVs) infect human and animals and cause varieties of diseases, including respiratory, enteric, renal, and neurological diseases. CoV uses its spike protein to recognize ACE2 as its receptors and mediate membrane fusion and virus entry into host cells(PMID: 32221306). Each monomer of trimeric S protein is about 180 kDa, and contains two subunits, S1 and S2,S1 recognizes and binds to host receptors, and subsequent conformational changes in S2 facilitate fusion between the viral envelope and the host cell membrane(PMID: 19198616). Although the amino acid sequences of the S-glycoprotein were found to be different between the various HCoV, the structures showed high similarity, but the best 3D structural overlap shared by SARS-CoV and SARS-CoV-2, consistent with the shared ACE2 predicted receptor (PMID: 32522207). The spike protein of CoVs can be a target for vaccine and therapeutic development (PMID: 19198616).

Lyophilized format of this product is available.

## **Notable Publications**

| Author      | Pubmed ID | Journal          | Application |
|-------------|-----------|------------------|-------------|
| Shugang Qin | 36647424  | Acta Pharm Sin B | WB          |
| Na Fan      | 36563159  | Sci Adv          | WB          |
| Fuhua Wu    | 39838750  | Adv Mater        |             |

Storage

Storage

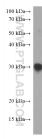
Store at -20°C. Stable for one year after shipment.

Storage Buffer

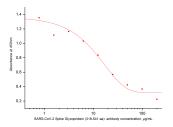
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

## **Selected Validation Data**



Recombinant spike protein (RBD domain) were subjected to SDS PAGE followed by western blot with 67758-1-Ig (SARS-CoV-2 Spike Glycoprotein (319-541 aa) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Surrogate virus neutralization test of SARS-CoV-2 Spike Glycoprotein (319-541 aa) monoclonal antibody 67758-1-lg using commercial kit. Briefly, RBD protein has been pre-coated on microplate, HRP labeled ACE2 protein and serial dose of 67758-1-lg are added to the plate simultaneously and incubated for 1 hour at 37°C. The plate was then washed and signal was developed by adding chromogenic substrate followed by stop buffer. Signal strength was monitored at