



# S Recombinant Monoclonal Antibody, FITC conjugated

<b>Product Code</b>	CSB-RA33245C1GMY
<b>Abbreviation</b>	S
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P0DTC2
<b>Immunogen</b>	Recombinant Human Novel Coronavirus Spike glycoprotein (S) (16-685aa) (CSB-MP3324GMY)
<b>Species Reactivity</b>	Human Novel Coronavirus (SARS-CoV-2/ 2019-nCoV)
<b>Form</b>	Liquid
<b>Conjugate</b>	FITC
<b>Storage Buffer</b>	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Mouse scFv fusion with human IgG1 Fc
<b>Clonality</b>	Monoclonal
<b>Alias</b>	S, S1, S1-RBD, Spike glycoprotein
<b>Immunogen Species</b>	Human Novel Coronavirus (SARS-CoV-2/ 2019-nCoV)
<b>Research Area</b>	Microbiology
<b>Gene Names</b>	S (Spike glycoprotein)
<b>Clone No.</b>	H6

## Description

The generation of the recombinant human SARS-CoV-2 S monoclonal antibody involves several steps:

**Isolation of mouse scFv:** Mice are immunized with the human SARS-CoV-2 S protein (16-685aa), and splenocytes are collected. RNA is extracted from the splenocytes, followed by reverse transcription to obtain cDNA.

**Generation of scFv:** The variable regions of the heavy and light chains of the mouse antibody are amplified from the cDNA using PCR. The amplified regions are then combined to construct the scFv.

**Cloning of scFv into an expression vector:** The scFv-encoding gene sequence is inserted into an expression vector. The vector contains the DNA sequence encoding the human IgG1 Fc region downstream of the scFv. Additionally, a DNA sequence encoding FITC is introduced downstream of the Fc region, resulting in the scFv-Fc-FITC fusion construct.



Transfection and expression: The recombinant expression vector is transfected into a suitable host cell line to enable the production of the scFv-Fc- fusion protein.

Antibody purification: The recombinant S monoclonal antibody is purified using affinity chromatography from the cell culture supernatant.