



S Recombinant Monoclonal Antibody, FITC conjugated

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