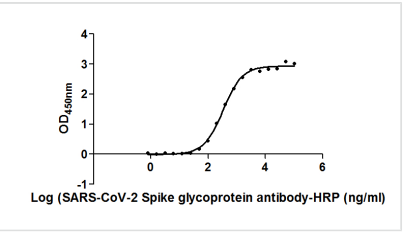
S Recombinant Monoclonal Antibody, HRP conjugated

Product Code	CSB-RA33245B1GMY
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)
Species Reactivity	Human Novel Coronavirus (SARS-CoV-2/ 2019-nCoV)
Tested Applications	ELISA
Form	Liquid
Conjugate	HRP
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

Image



The Binding Activity of SARS-CoV-2-S Antibody, HRP conjugated with SARS-CoV-2-S Activity: Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV-2-S (CSB-MP3324GMY) at 2 μg/ml can bind SARS-CoV-2-S Antibody, HRP conjugated, the EC_{50} is 298.5 to 368.1 ng/ml.

Description

To generate a human SARS-CoV-2 S recombinant monoclonal antibody in the format of a mouse scFv fusion with human IgG1 Fc, the following steps can be followed: 1. isolation of the mouse scFv: immunize mice with human SARS-CoV-2 S (16-685aa). Obtain splenocytes from immunized mice. Isolate RNA from the splenocytes and perform reverse transcription to obtain cDNA. 2. generation of scFv: amplify the variable regions of the heavy and light chains of the mouse antibody from the cDNA using PCR. Combine the amplified heavy and light chain variable regions to construct the scFv. 3. Clone the scFv into an

expression vector: insert the DNA sequence encoding the scFv into an expression vector, which contains the DNA sequence encoding the human IgG1 Fc region downstream of the scFv. Introduce a DNA sequence encoding HRP downstream of the Fc region to create the scFv-Fc-HRP fusion construct. 4. transfection and expression: transfect the recombinant expression vector into a host cell line for expression. 5. antibody purification: collect the cell culture supernatant containing the recombinant monoclonal antibody. Purify the antibody using affinity chromatography. 6. characterization and validation: confirm the binding specificity of the S recombinant monoclonal antibody, with HRP conjugate, by testing its ability to recognize the human SARS-CoV-2 S protein in ELISA.