



SARS-CoV-2 Spike RBD Recombinant Nanobody, FITC conjugated

Product Code	CSB-RA33245C2GMY
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) (319-541aa) (CSB-YP3324GMY1 and CSB-MP3324GMY1b1)
Species Reactivity	Human Novel Coronavirus (SARS-CoV-2/ 2019-nCoV)
Tested Applications	ELISA; Recommended dilution: ELISA:1:10000-1:50000
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	VHH fusion with human IgG1 Fc
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Human Novel Coronavirus (SARS-CoV-2/ 2019-nCoV)
Research Area	Microbiology
Clone No.	A1

Description

The production of the SARS-CoV-2 Spike RBD recombinant monoclonal antibody is a complex process that requires multiple steps. Firstly, the SARS-CoV-2 Spike RBD monoclonal antibody is collected and its gene sequence is analyzed. Following that, a vector containing the SARS-CoV-2 Spike RBD monoclonal antibody gene is constructed and transfected into a host cell line for culturing. To create the SARS-CoV-2 Spike RBD monoclonal antibody, a recombinant human SARS-CoV-2 Spike glycoprotein (S) (319-541aa) (CSB-YP3324GMY1 and CSB-MP3324GMY1b1) is used as an immunogen. The SARS-CoV-2 Spike RBD recombinant monoclonal antibody is then purified via affinity chromatography and its specificity is verified through ELISA. It is conjugated with a FITC tag.

The SARS-CoV-2 spike RBD plays a critical role in the virus's ability to infect human cells. The RBD binds to the human cell surface receptor ACE2, which is expressed on the surface of cells in various tissues, including the lungs, heart, kidneys, and intestines. This interaction triggers the fusion of the virus and the



host cell, allowing the virus to enter the cell and initiate the infection process. Once inside the host cell, the virus uses its own genetic material to hijack the host cell's machinery to replicate and spread. Mutations in the RBD can affect its ability to bind to ACE2, impacting the virus's infectivity and virulence.