

Anti-Spike Protein (RBD) [CV30] Standard Size Ab02019-10.7

This antibody is in our proprietary AbFab2™ recombinant F(ab2) format - based on Human IgG1 sequence with a short dimerization domain to improve stability and a his tag.

This reformatted human antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human F(ab)₂, AbFab2™ His-Tagged, Kappa

Clone Number: CV30

Alternative Name(s) of Target: Receptor Binding Domain; SARS-CoV2; SARS Coronavirus 2; SARS-CoV-2; SARS CoV 2; 2019-nCoV; SARS Coronavirus 2 receptor binding domain; SARS CoV2 RBD; Severe acute respiratory syndrome coronavirus 2; Spike protein; S protein; SARS-CoV 2 S protein; S glycoprotein; E2; Peplomer protein

UniProt Accession Number of Target Protein: P0DTC2

Published Application(s): neutralize, therapeutic, ELISA, FC

Published Species Reactivity: SARS Coronavirus 2

Immunogen: The original antibody was generated by isolating B-cells from the peripheral blood mononuclear cells (PBMCs) of SARS CoV2 infected patients, after the serum neutralizing activity was confirmed.

Specificity: This antibody recognizes and binds the receptor binding domain (RBD) encoded by residues 319-591 of the SARS CoV 2 spike protein. CV30 binds the SARS CoV 2 RBD with a high affinity of 3.6nM and completely blocks the interaction between the RBD and ACE2 domain.

Application Notes: This antibody is a potent 2019-nCoV neutralizing antibody and highly recommended for diagnosis and/or treatment of SARS CoV 2 or 2019-nCoV. CV30 binds SARS CoV 2 RBD with a very high affinity and achieves 100% neutralization (IC₅₀=0.03µg/ml). ELISA was used to confirm the binding of SARS CoV 2 positive serum samples to the entire ectodomain and the receptor binding domain of the spike protein. Specific binding of the mAb to SARS CoV 2 to receptor binding domain was confirmed with biolayer interferometry. Phycoerythrin labelled mAb was used to stain 293E cells transfected with wild type SARS CoV 2 and were analysed by flow cytometry (Seydoux et al., 2020).

Antibody First Published in: Seydoux et al. Characterization of neutralizing antibodies from a SARS-CoV-2 infected individual [PMID:32511342](https://pubmed.ncbi.nlm.nih.gov/32511342/)

Note on publication: Describes the generation and characterization of this antibody from PBMCs of infected patients.

Product Form

Size: 100 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.