

## Anti-Spike Protein (RBD) [CV30] Standard Size Ab02019-1.7

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

This chimeric mouse 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:** Mouse 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.