

Anti-Spike Protein (RBD) [CV30] Standard Size Ab02019-15.0

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

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 IgM, 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 ($IC_{50}=0.03\mu g/ml$). 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](#)

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

Product Form

Size: 50 µg Purified antibody.

Purification: Affinity Purified using a recombinant lectin column

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.