Anti-Spike protein (RBD) [Sb#16] Standard Size Ab02014-15.159

Made with synthetic nanobody sequences licensed from the Seeger laboratory, University of Zurich.

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

Isotype and Format: Human IgM-Fc Fusion
Clone Number: Sb#16
Alternative Name(s) of Target: Receptor Binding Domain; SARS CoV 2 S glycoprotein; Sb16; COVID-19 Spike protein; RBD; Receptor Binding Domain; E2 glycoprotein; E2; Human coronavirus 2 spike glycoprotein; Peplomer protein; S glycoprotein; SARS coronavirus 2 S protein; SARS coronavirus 2 Spike Protein; SARS CoV 2 Spike protein; SARS CoV 2; SARS-CoV-2 S protein; SARSCoV2; SARS-COV-2 S protein; SARS-COV-2 Spike glycoprotein; SARSCOV2 Spike protein; Severe acute respiratory syndrome 2 spike glycoprotein; Severe acute respiratory syndrome virus 2 spike glycoprotein; Spike glycoprotein; 2019-nCoV; SARS-CoV2
UniProt Accession Number of Target Protein: P0DTC2
Published Application(s): grating-coupled interferometry, inhibition, therapeutics, ELISA
Published Species Reactivity: SARS Coronavirus 2 (SARS-Cov-2)
Immunogen: This clone was originally isolated in a form of a synthetic nanobody (sybody) via a 'target swap' selection procedure against RBD-vYFP using ribosomal display and against RBD-Fc fusion during phage display rounds.
Specificity: This antibody recognizes and binds the SARS CoV 2 C-terminal receptor binding domain (RBD) located in the extracellular portion of the spike protein.
Application Notes: This antibody is recommended for detection of SARS CoV 2 or 2019-nCoV. Its high specificity to the novel coronavirus was confirmed via ELISA testing (Walter et al., 2020). Furthermore, grating-coupled interferometry demonstrated that this antibody binds the receptor binding domain (RBD) of the spike protein with high affinity (Walter et al., 2020). Subsequent testing showed that this clone exhibits exceptionally strong inhibition of binding of SARS-Cov-2 RBD to hACE2, which is the receptor for the virus (signal of RBD association with hACE2 decreased over 90%) (Walter et al., 2020).
Antibody First Published in: Walter et al. Sybodies targeting the SARS-CoV-2 receptor-binding domain BioRxiv (2020)

PMID:

Note on publication: Describes the generation and characterization of the antibody.

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^{o}C for up to 3 months. For longer storage, aliquot and store at -20^{o}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.