

Anti-Spike protein (RBD) [Sb#68] Standard Size Ab02017-12.159

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 IgG3-Fc Fusion

Clone Number: Sb#68

Alternative Name(s) of Target: SARS CoV 2 S glycoprotein; Sb68; 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. Sb#68 is a strong binder and binds the 2019-nCoV ectodomain with an affinity of $K_D \approx 37$ nM (Walter et al., 2020). The initial characterization and binding activity of this antibody to SARS CoV2 spike protein was confirmed with ELISA (Walter et al., 2020). This antibody is a mild inhibitor for interaction between hACE2 and RBD of SARS CoV2. This clone binds to a non-overlapping epitope relative to S#15 (Ab02013) what can be used in development of anti-Covid-19 therapeutics granting together increased avidity to the spike protein (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: 200 µg Purified antibody.

Purification: Protein A affinity purified

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.