

Anti-Spike protein [Sb23] Standard Size Ab02062-12.159

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: Sb23

Alternative Name(s) of Target: SARS CoV 2 S glycoprotein; Sb23; 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

UniProt Accession Number of Target Protein: P0DTC2

Published Application(s): biolayer interferometry, NTRL, ELISA

Published Species Reactivity: SARS Coronavirus 2 (SARS-Cov-2)

Immunogen: The original antibody was

Specificity: This antibody is capable of binding both recombinant RBD as well as to the pre-fusion spike glycoprotein with high affinity. Sb23 binds an epitope in the ACE2 binding site on the RBD in both its 'up' and 'down' conformation and thereby effectively blocks ACE2 binding.

Application Notes: Sb23 binds RBD with a very high affinity and neutralizes pseudovirus with an IC₅₀ of 0.6 µg/ml. Sb23 and ACE2 compete for the same or overlapping binding sites on SARS-CoV-2-RBD. ELISA was used to screen the libraries to identify specific RBD binders. It is also reported that since Sb23 can efficiently replace ACE2 from a preformed complex, it has a higher affinity for RBD than ACE2. Biolayer interferometry assay was used to kinetically characterize the interaction of sybodies with RBD and spike (Custódio et al., 2020).

Antibody First Published in: Custódio et al. Selection, biophysical and structural analysis of synthetic nanobodies that effectively neutralize SARS-CoV-2 . BioRxiv (2020) [PMID:](#)

Note on publication: Describes the isolation, characterization and structural analysis of synthetic nanobodies that effectively neutralize SARS-CoV-2 .

Product Form

Size:

100 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.