Anti-Spike protein [MR3] Bulk Size Ab02059-16.159-BT

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 IgA-Fc Fusion
Clone Number: MR3
Alternative Name(s) of Target: SARS CoV 2 S glycoprotein; 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, FACS, NTRL, therapeutic, ELISA
Published Species Reactivity: SARS Coronavirus 2 (SARS-Cov-2)
Immunogen: The original antibody was selected after one round of ribosome display using three high diversity libraries (concave, loop and covex) followed by three rounds of phage display and panning against biotinylated RBD as a bait and increasing the stringency of selection with every round. The last round of selection was against 5nM RBD.
Specificity: This antibody binds the receptor binding domain (RBD) of the SARS-CoV-2.
Application Notes: MR3 is a potent antibody that binds the RBD with an affiinty of KD=1.0 nM and neutralizes SARS-CoV-2 pseudovirus with an IC50 of 0.40 µg m/L. Consistent with its highest affinity, MR3 showed the slowest off-rate (2.3 × 10-4 per second). ELISA was used to screen the libraries to identify specific RBD binders. Neutralization activity of the sybody was checked by pre-incubating pseudoviral particles with different concentrations of sybody before infection of VeroE6-hACE2 cells. The rate of infection was then measured by fluorescence-activated cell sorting (FACS). The binding kinetics between sybodies and the RBD was assessed using bio-layer interferometry (Li et al., 2020).
Antibody First Published in: PMID:
Note on publication:

Product Form

Size:

500 µg Purified antibody in bulk size.
Purification: Affinity Purified using a recombinant lectin column
Supplied In: PBS only.
Storage Recommendation: Store at 4ºC for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20ºC.
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.