

## Anti-Spike protein [EY6A] Bulk Size Ab02057-10.7-BT

This antibody is in our proprietary AbFab2™ recombinant F(ab2) format - based on Human IgG1 sequence with a short dimerization domain to improve stability and a his tag.

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 F(ab)2, AbFab2™ His-Tagged, Kappa

**Clone Number:** EY6A

**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):** NTRL, Surface Plasmon Resonance, therapeutic, ELISA, IF

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

**Immunogen:** The original antibody was isolated by cloning antibody genes from blood derived plasmablasts of a Covid-19 infected patient in the convalescent phase.

**Specificity:** This antibody binds tightly (KD of 2 nM) to the receptor binding domain (RBD) the of the SARS-CoV-2. It also cross reacts with SARS-CoV-1. This antibody recognizes a highly conserved epitope on away from the ACE2 receptor binding domain.

**Application Notes:** EY6A binds S1 domain of SARS-CoV-2 and also cross reacts with SARS-CoV-1. The binding was confirmed by ELISA. Further confirmation of binding of EY6A to SARS-CoV-2 infected cells was done by immunofluorescence. Surface plasmon resonance (SPR) measurements for EY6A Fab showed high affinity binding to immobilised SARS-CoV-2 RBD (KD = 2 nM). EY6A did not completely block binding of ACE2 to RBD, but was successful in neutralizing SARS-CoV-2 infection in Vero E6 cells (Zhou et al., 2020).

**Antibody First Published in:** Zhou et al. Structural basis for the neutralization of SARS-CoV-2 by an antibody from a convalescent patient. BioRxiv (2020) [PMID:](#)

**Note on publication:** Describes the generation, characterization and structural complex formed by this antibody with the receptor binding domain of the SARS-CoV-2.

## Product Form

**Size:** 500 µg Purified antibody in bulk size.

**Purification:** Purified by Immobilized Metal Affinity Chromatography

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.