Anti-CoV2RBD-c2-mIgG2a

Monoclonal mouse IgG2a antibody against SARS-CoV-2 Spike (clone B38)

Catalog code: cov2rbdc2-mab10

https://www.invivogen.com/sars2-spike-b38-mab

For research use only, not for diagnostic or therapeutic use

Version 21D07-NJ

PRODUCT INFORMATION

Contents:

• 100 µg of Anti-CoV2RBD-c2-mIgG2a, provided azide-free and lyophilized

Target: SARS-CoV-2 Spike receptor binding domain (S-RBD)

Source: CHO cells

Isotype: Mouse IgG2a

Light chain type: Kappa

Clonality: Monoclonal

Purification: By affinity chromatography with protein A

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose, and stabilizing agents

Storage

- Product is shipped at room temperature. Store lyophilized antibody at -20 °C. Lyophilized product is stable for at least 1 year.
- Reconstituted antibody is stable for 1 month when stored at 4°C and for 1 year when aliquoted and stored at -20 °C. Avoid repeated freeze-thaw cycles.

Quality control

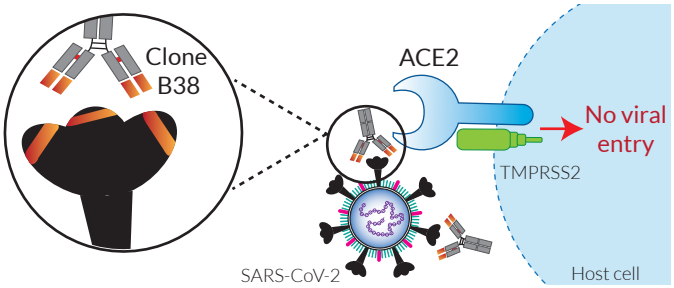
- The complete sequence of the antibody construct has been verified.
- Anti-CoV2RBD-c2-mIgG2a has been functionally validated by ELISA using a SARS-CoV-2 Spike-RBD-His fusion peptide.
- Absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and TLR4 cellular assays.

PRODUCT DESCRIPTION

Anti-CoV2RBD-c2-mIgG2a, originally described under the name 'clone B38', is a recombinant SARS-CoV-2 neutralizing monoclonal antibody (mAb)[1]. Anti-CoV2RBD-c2-mIgG2a features a variable region that is reactive against the receptor binding domain (RBD) of the Spike protein of SARS-CoV-2, and the constant region of the mouse IgG2a (mIgG2a) isotype. Anti-CoV2RBD-c2-hIgG1 was generated by recombinant DNA technology, produced in CHO cells, and purified by affinity chromatography with protein A.

SARS-CoV-2 Spike RBD mAb (clone B38)

The SARS-CoV-2 Spike receptor-binding domain (S-RBD) is an important candidate for both treatment and vaccination strategies in the context of COVID-19. A previously characterized SARS-CoV neutralizing mAb (CR3022) against the S-RBD was rapidly found to cross react with SARS-CoV-2[2]. However, it did not neutralize the virus[3]. Thus, peripheral blood mononuclear cells (PBMCs) were isolated from a convalescent COVID-19 patient and screened for SARS-CoV-2 specific antibodies against the S-RBD[1]. Subsequently, 'clone B38' was identified and shown to effectively neutralize the virus by blocking the interaction between the SARS-CoV2 S-RBD and the host receptor ACE2, *in vitro*[1].



mIgG2a Isotype effector function

Mouse IgG2a is the most potent at inducing antibody-dependent cellular cytotoxicity (ADCC) compared to mIgG1, mIgG2b, and mIgG3.

1. Wu, Y. *et al.* 2020. A noncompeting pair of human neutralizing antibodies block COVID-19 virus binding to its receptor ACE2. Science 368, 1274-1278. **2. Tian X. *et al.*, 2020.** Potent binding of 2019 novel coronavirus spike protein by a SARS coronavirus-specific human monoclonal antibody. Emerging Microbes & Infections. 9(1):382-385. **3. Yuan M. *et al.*, 2020.** A highly conserved cryptic epitope in the receptor-binding domains of SARS-CoV-2 and SARS-CoV. Science. DOI: 10.1126/science.abb7269.

METHODS

Anti-CoV2RBD-c2-mIgG2a resuspension (100 µg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

- Add 1 ml of sterile water to the vial and gently pipette until completely resuspended.
- Prepare aliquots and store at 4°C or -20 °C until required.

RELATED PRODUCTS

Product	Catalog Code
Anti-CoV2RBD-c1-mIgG2a (clone H4)	cov2rbdc1-mab10
Anti-Spike-RBD-mIgG2a (CR3022)	srbd-mab10
Spike-RBD-Fc	fc-sars2-rbd
Spike-RBD-His	his-sars2-rbd
Spike-S1-Fc	fc-sars2-s1
Spike-S1-His	his-sars2-s1
Spike-S1-Fc (D614G)	fc-sars2-s1g
Spike-S1-His (D614G)	his-sars2-s1g

Note: For more products related to COVID-19 research, please visit our website https://www.invivogen.com/covid-19

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