



Monoclonal Anti-human Carbonic Anhydrase VI Antibody

ORDERING INFORMATION

Catalog Number: MAB29391

Clone: 401809

Lot Number: ZIX01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human CA6

Immunogen: NS0-derived rhCA6

Ig class: mouse IgG_{2b}

Recommended Application:
Flow cytometry

Other Application:
Direct ELISA

Background

Carbonic Anhydrase VI (CA6), also known as gustin and salivary carbonic anhydrase, is a secreted zinc metalloenzyme that is a major protein component of parotid saliva and milk. It carries out a mucosal protective function by regulating pH balance in the upper alimentary and respiratory tracts. Mature human CA6 shares 66% and 50% amino acid sequence identity with bovine and mouse CA6, respectively.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NS0-derived, recombinant human CA6 (rhCA6; Accession # NP_001206; aa 18 - 308; R&D Systems, Catalog # 2939-CA). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

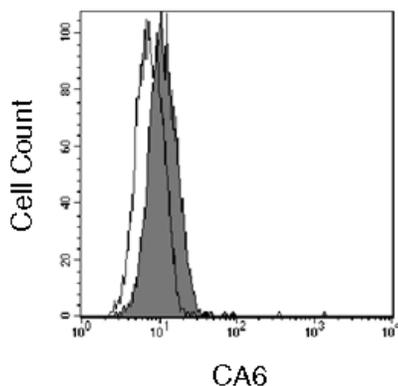
This antibody detects rhCA6 in direct ELISAs. In this application, this antibody shows no cross-reactivity with rhCA1, -2, -3, -4, -5A, -5B, -7, -8, or -9.

Applications

Intracellular Flow cytometry - This antibody was tested for flow cytometry using OVCAR-3 cells. For intracellular staining to detect CA-6, cells must first be fixed and permeabilized using 4% paraformaldehyde and 0.1% saponin in PBS. Dilute this antibody to 25 µg/mL and add 10 µL of the diluted solution to 1 - 5 x 10⁵ cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled monoclonal antibodies may be visualized by adding a secondary developing reagent such as goat anti-mouse IgG conjugated to a fluorochrome.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human CA6. The detection limit for rhCA6 is approximately 1 ng/well.

Optimal dilutions should be determined by each laboratory for each application.



OVCAR-3 cells were stained with anti-CA6 (R&D Systems, Cat. # MAB29391, filled histogram) or isotype control antibody (R&D Systems, Cat. # MAB0041, open histogram), followed by PE-conjugated anti-mouse antibody (R&D Systems, Cat. # F0102B).

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