Human Carbonic Anhydrase IX/CA9
PE-conjugated Antibody
Monoclonal Mouse IgG₂A Clone # 303123
Catalog Number: FAB2188P
100 Tests

DESCRIPTION
Species Reactivity Human
Specificity Detects human Carbonic Anhydrase IX (CA9) in direct ELISAs. In direct ELISAs, this antibody does not cross-react with recombinant mouse (rm) CA9 or with rhCA1, 2, 3, 4, 5A, 6, 7, 8, 10, 12, 13, or 14.
Source Monoclonal Mouse IgG₂A Clone # 303123
Purification Protein A or G purified from hybridoma culture supernatant
Immunogen Mouse myeloma cell line NS0-derived recombinant human Carbonic Anhydrase IX Pro59-Asp414
Accession # Q16790
Conjugate Phycoerythrin
Excitation Wavelength: 488 nm
Emission Wavelength: 565-605 nm
Formulation Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Recommended Concentration Sample
Flow Cytometry 10 µL/10⁶ cells See Below

DATA

Flow Cytometry

Detection of Carbonic Anhydrase IX/CA9 in U-87 MG Human Cell Line by Flow Cytometry. U-87 MG human glioblastoma/astrocytoma cell line was stained with Mouse Anti-Human Carbonic Anhydrase IX/CA9 PE-conjugated Antibody (Catalog # FAB2188P, filled histogram) or isotype control antibody (Catalog # IC003P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE
Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage Protect from light. Do not freeze.
● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND
Carbonic Anhydrase (CA) catalyzes the reversible reaction of CO₂ + H₂O = HCO₃⁻ + H⁺, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption (1-3). Topics in the CA meeting (6th International Conference on the CAs, June 20-25, 2003; Slovakia) ranged from use of CAs as markers for tumor and hypoxia in clinic, as nutritional supplement in milk, and as a tool for CO₂ removal and mosquito control in industry. CA9, also known as membrane antigen MN and renal cell carcinoma (RCC)-associated antigen G250, is a transmembrane enzyme expressed primarily in carcinoma cells. It is one of the best markers for hypoxia and for RCC (4, 5). rhCA9 corresponds to the extracellular portion of human CA9.

References:

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