

Product Datasheet

Carbonic Anhydrase IX antibody [GT12] GRP82

Description

Carbonic anhydrase IX (CA IX) is a member of the CA family of zinc-binding enzymes that catalyze a reversible conversion between carbon dioxide and carbonic acid, in a reaction that involves facilitated hydration of CO₂ to H₂CO₃ followed by the spontaneous dissociation of H₂CO₃ into bicarbonate and proton. The CA IX molecule consists of a large extracellular domain (ECD), single-pass transmembrane region (TM) and a short intracytoplasmic (IC) tail. The ECD contains an N-terminally located PG-like region (which is absent from the other carbonic anhydrase isoforms) and a centrally located, well conserved catalytic domain (CA). CA IX is a cell surface protein that is present in human tumors, but not in the corresponding normal tissues. Moreover, expression of CA IX correlates with poor prognosis in many tumor types. CA IX plays a role in two phenomena involved in development of tumor phenotype - control of cell adhesion and pH regulation. Tight association of CA IX with tumors is to a major part related to tumor hypoxia.

Species/Host

Mouse

Reactivity

Human

Conjugation

Unconjugated

Tested Applications

FACS, ICC, IF, IHC-Fr, IHC-P, IP, WB

Form/Appearance

Liquid: PBS

Concentration

Batch dependent

Storage

Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Note

For research use only.

Isotype

IgG2b

Clonality

Monoclonal

Clone ID

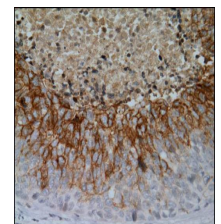
GT12

Uniprot ID

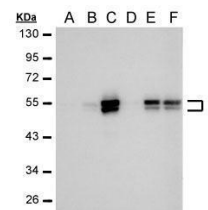
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Immunohistochemical analysis of paraffin-embedded cervical CA tissue sections using anti-CAIX antibody [GT12] (GRP534) at a dilution of 1:1000. The hypoxic regions of the tumor show positive CAIX staining.



Sample (30 μg HeLa whole cell lysate) A: 24 hr Untreated B: 24 hr treatment with 100 μM CoCl₂ C: 24 hr treatment with 200 μM CoCl₂ D: 48 hr Untreated E: 48 hr treatment with 100 μM CoCl₂ F: 48 hr treatment with 200 μM CoCl₂