

CAIX Antibody [GT12] (Biotin)

Biotinylated Mouse monoclonal antibody [GT12] to CAIX

Catalog Number **GTX70020-BIOT**

Full Name carbonic anhydrase IX

Synonyms | Carbonic anhydrase9 | carbonic anhydrase IX | CA9 | CAIX | CAIX | MN | CA9 | G250 antigen | CA-IX | P54/58N | RCC-associated antigen G250 | RCC-associated protein G250 | carbonate dehydratase IX | carbonic anhydrase 9 | carbonic dehydratase | membrane antigen MN | pMMW1 | renal cell carcinoma-associated antigen G250 | RCC associated antigen G250 | RCC associated protein G250 | RCC associated antigen G250 | RCC associated protein G250ic anhydrase IX | CAIX | CAIX | CA9 | CA9 |

Background Carbonic anhydrase IX (CAIX) 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 CAIX 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). CAIX is a cell surface protein that is present in human tumors, but not in the corresponding normal tissues. Moreover, expression of CAIX correlates with poor prognosis in many tumor types. CAIX plays a role in two phenomena involved in development of tumor phenotype - control of cell adhesion and pH regulation. Tight association of CAIX with tumors is to a major part related to tumor hypoxia.

Host Mouse

Clonality Monoclonal

Clone No GT12

Subclass IgG2b

Antigen Species Human

Cross Reactivity Human - Not yet tested in other species.

Applications Flow cytometry/FACS, ICC/IF, Immunohistochemistry, Immunoprecipitation, Western blot. The usefulness of this product in other applications has not been determined.

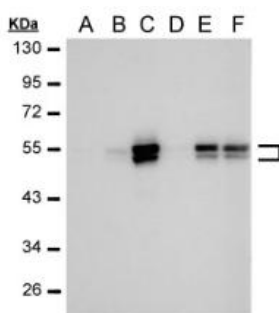
Conjugation Biotin

Storage Buffer Aqueous buffered solution containing BSA and ≤ 0.05% sodium azide

Storage Instruction Aliquot and store undiluted at -20°C. Avoid repeated freeze/thaw cycles.

Notes For in vitro research use only. Not intended for any diagnostic or therapeutic purpose. Not suitable for human or animal consumption.

If you use this product in your publication, please refer to GeneTex and quote the catalog number GTX70020-BIOT. Please let us know about your publication so that we can update this datasheet to list your paper. Thanks!



Sample (30 µg HeLa whole cell lysate)

A: 24 hr Untreated

B: 24 hr treatment with 100µM CoCl₂

C: 24 hr treatment with 200µM CoCl₂

D: 48 hr Untreated

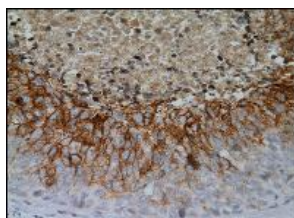
E: 48 hr treatment with 100µM CoCl₂

F: 48 hr treatment with 200µM CoCl₂

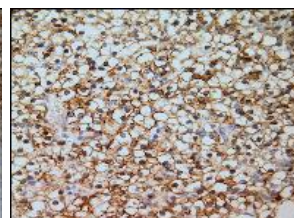
Unconjugated anti-CAIX antibody [GT12] (GTX70020)



Immunohistochemical analysis of paraffin-embedded cervical CA tissue sections using anti-CAIX antibody [GT12] (GTX70020) at a dilution of 1:2000. The hypoxic regions of the tumor show positive CAIX staining.



Immunohistochemical analysis of paraffin-embedded cervical CA tissue sections using anti-CAIX antibody [GT12] (GTX70020) at a dilution of 1:2000. The hypoxic regions of the tumor show positive CAIX staining.



Immunohistochemical analysis of paraffin-embedded renal cell carcinoma (clear cell type) using anti-CAIX antibody [GT12] (GTX70020) at a dilution of 1:2000.

was used at a dilution of 1:2000

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