10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Carbonic Anhydrase 5A Antibody

Catalog # AP51029

Product Information

Application	WB, IF/IC
Primary Accession	P35218
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34750

Additional Information

Gene ID	763
Other Names	CA5; Carbonic anhydrase 5A mitochondrial; Carbonate dehydratase VA; Carbonic anhydrase VA; CA-VA
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Carbonic Anhydrase 5A. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

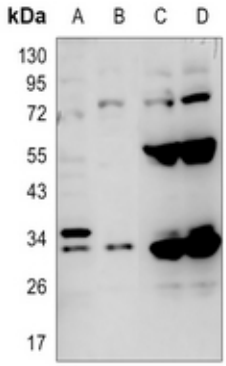
Protein Information

Name	CA5A (HGNC:1377)
Synonyms	CA5
Function	Mitochondrial carbonic anhydrase that catalyzes the reversible conversion of carbon dioxide to bicarbonate/HCO3 (PubMed:24530203, PubMed:8356065, PubMed:16807956, PubMed:16686544, PubMed:17127057, PubMed:17314045, PubMed:19186056, PubMed:19206230). Mitochondria are impermeable to HCO3, and thus this intramitochondrial carbonic anhydrase is pivotal in providing HCO3 for multiple mitochondrial enzymes that catalyze the formation of essential metabolites of intermediary metabolism in the urea and Krebs cycles (PubMed:24530203).
Cellular Location	Mitochondrion.

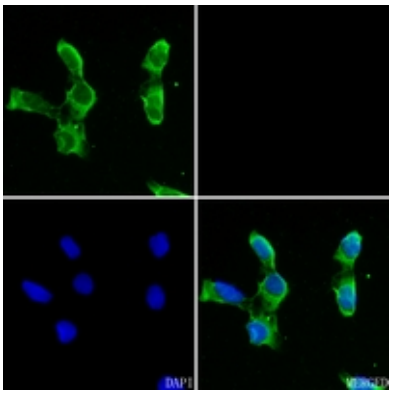
References

Nagao Y.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:7623-7627(1993).
Nagao Y.,et al.Genomics 28:477-484(1995).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Temperini C.,et al.Chemistry 12:7057-7066(2006).
Temperini C.,et al.J. Med. Chem. 49:3019-3027(2006).

Images



Western blot analysis of Carbonic Anhydrase 5A expression in HEK293T (A), mouse liver (B), rat liver (C), rat spleen (D) whole cell lysates. (Predicted band size: 34 kD; Observed band size: 30 kD)



Immunofluorescent analysis of Carbonic Anhydrase 5A staining in HEK293T cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.