

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

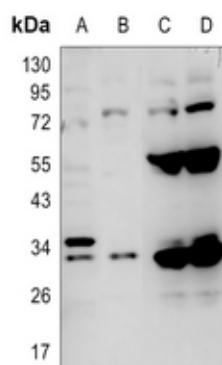
Protein Information

Name	CA5A (HGNC:1377)
Synonyms	CA5
Function	Mitochondrial carbonic anhydrase that catalyzes the reversible conversion of carbon dioxide to bicarbonate/HCO ₃ (PubMed: 24530203 , PubMed: 8356065). Mitochondria are impermeable to HCO ₃ , and thus this intramitochondrial carbonic anhydrase is pivotal in providing HCO ₃ 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.

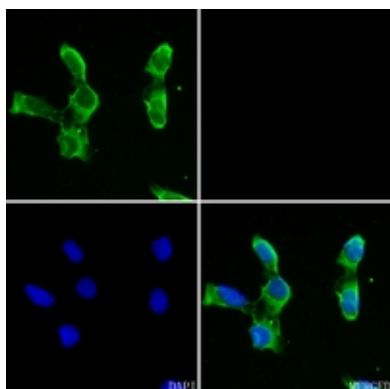
References

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 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 humidified 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).

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