

DATASHEET

Carbonic Anhydrase 5A Rabbit Polyclonal Antibody

CAT. NO. APA06716

KEY FEATURES

Target	Carbonic Anhydrase 5A	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Mitochondrial carbonic anhydrase that catalyzes the reversible conversion of carbon dioxide to bicarbonate/HCO₃. 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.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to Carbonic Anhydrase 5A
Specificity	Recognizes endogenous levels of Carbonic Anhydrase 5A protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Carbonic Anhydrase 5A. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 34 kD; Observed: 30 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CA5; Carbonic anhydrase 5A mitochondrial; Carbonate dehydratase VA; Carbonic anhydrase VA; CA-VA
Gene Symbol	CA5A
Entrez Gene	763(Human); 12352(Mouse); 54233(Rat)
SwissProt	P35218(Human); P23589(Mouse); P43165(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

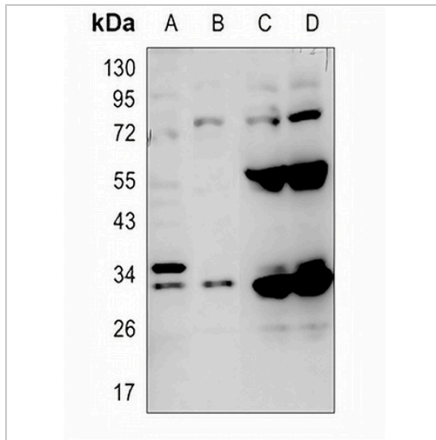
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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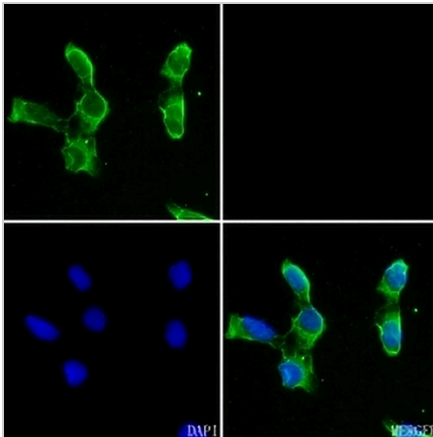
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Western blot analysis of Carbonic Anhydrase 5A expression in HEK293T (A), mouse liver (B), rat liver (C), rat spleen (D) whole cell lysates. (Predicted band size: 34 kD; Observed band size: 30 kD)



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 AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.