

**DATASHEET**

**Carbonic Anhydrase 4 Rabbit Polyclonal Antibody**

CAT. NO. APA10853

**KEY FEATURES**

Target	Carbonic Anhydrase 4	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**

Catalyzes the reversible hydration of carbon dioxide into bicarbonate and protons and thus is essential to maintaining intracellular and extracellular pH . May stimulate the sodium/bicarbonate transporter activity of SLC4A4 that acts in pH homeostasis . It is essential for acid overload removal from the retina and retina epithelium, and acid release in the choriocapillaris in the choroid .

**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 4
Specificity	Recognizes endogenous levels of Carbonic Anhydrase 4 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Carbonic Anhydrase 4. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 35 kD; Observed: 35 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	Carbonic anhydrase 4; Carbonate dehydratase IV; Carbonic anhydrase IV; CA-IV
Gene Symbol	CA4
Entrez Gene	762(Human); 12351(Mouse); 29242(Rat)
SwissProt	P22748(Human); Q64444(Mouse); P48284(Rat)

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

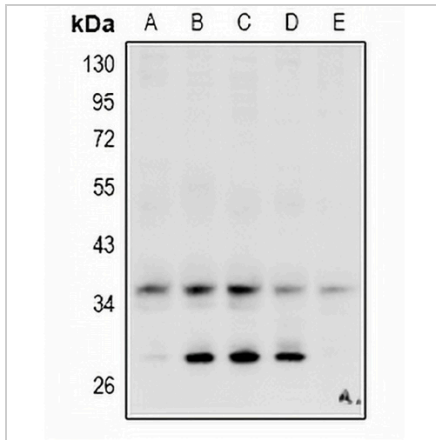
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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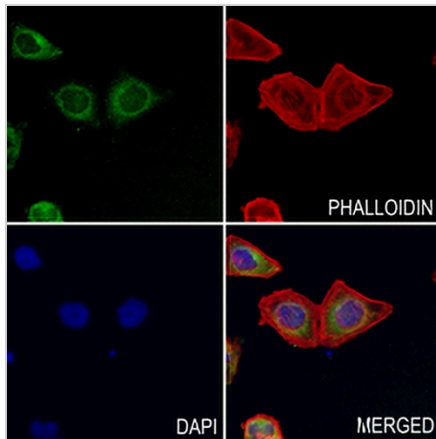
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**DATA**



Western blot analysis of Carbonic Anhydrase 4 expression in HEK293T (A), HepG2 (B), LO2 (C), AML12 (D), PC12 (E) whole cell lysates. (Predicted band size: 35 kD; Observed band size: 35 kD)



Immunofluorescent analysis of Carbonic Anhydrase 4 staining in MCF7 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 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.