

DATASHEET

Carbonic Anhydrase 12 Rabbit Monoclonal Antibody(ARB584)

CAT. NO. ARB6876

KEY FEATURES

Target	Carbonic Anhydrase 12	Clonality	Monoclonal
Clone ID	ARB584	Applications	IHC
Source / Host	Rabbit	Dilution	1:100-1:200
Reactivity	Human	Storage	at-20°C

BACKGROUND

Carbonic Anhydrase 12 (CA12) is a glycosylphosphatidylinositol (GPI)-anchored transmembrane enzyme that catalyzes the reversible hydration of carbon dioxide to bicarbonate and protons ($\text{CO}_2 + \text{H}_2\text{O} \rightleftharpoons \text{HCO}_3^- + \text{H}^+$), critically regulating extracellular pH homeostasis and ion transport. Carbonic Anhydrase 12 (CA12) is predominantly expressed in kidney and endometrium. In tumor tissue, it is mainly expressed in breast cancer and renal cell carcinoma. Carbonic Anhydrase 12 (CA12) serves as a clinically validated biomarker and therapeutic target in hormone-responsive carcinomas. Its overexpression, detected via immunohistochemistry (IHC) or serum assays, correlates strongly with breast cancer, clear cell renal cell carcinoma (ccRCC) and endometrial adenocarcinoma, where it drives tumor progression by acidifying the extracellular microenvironment.

APPLICATION

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

IHC	1:100 - 1:200
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*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

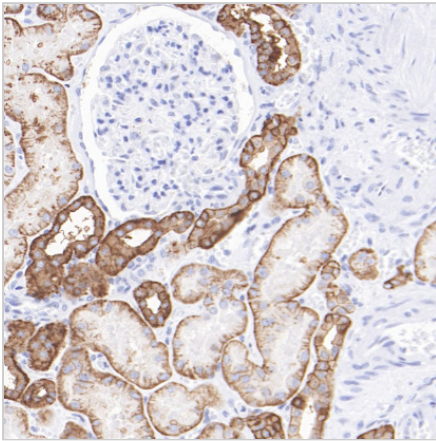
Predicted Molecular Wt	40kDa
Purity	ProA affinity purified IgG
Subcellular location	Membrane and cytoplasm
Swissprot ID	O43570
Immunogen	Synthetic peptide.
Storage Buffer	PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%
Recommended Method	Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

*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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DATA

Immunohistochemical staining of human kidney tissue using Carbonic Anhydrase 12 Rabbit Monoclonal Antibody(ARB584)

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.

More information: www.arexbio.com