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Datasheet for 100-401-136

Carbonic Anhydrase II Antibody

Overview

Description:	Anti-Carbonic Anhydrase II (RABBIT) Antibody - 100-401-136
Item No.:	100-401-136
Size:	2 mL
Applications:	IF, IHC, Multiplex, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Carbonic Anhydrase 2 is essential for bone resorption and osteoclast differentiation. It reverses hydration of carbon dioxide and can hydrate cyanamide to urea. It is involved in the regulation of fluid secretion into the anterior chamber of the eye. Carbonic Anhydrase II contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption. It stimulates the chloride-bicarbonate exchange activity of SLC26A6. it is used for target of drugs used in treatments against glaucoma disorder and breast cancer.
Synonyms:	rabbit anti-Carbonic Anhydrase II Antibody, Carbonate dehydratase II antibody, Carbonic anhydrase 2 antibody, Carbonic anhydrase B antibody, Carbonic anhydrase C antibody, Carbonic anhydrase II antibody, Carbonic dehydratase antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	CA2
Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	Carbonic Anhydrase II [Human Erythrocytes]

Purity/Specificity:	This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-rabbit serum, purified and partially purified Carbonic Anhydrase II [Human Erythrocytes]. Cross reactivity against Carbonic Anhydrase II from other tissues and species may occur but have not been specifically determined.
Relevant Links:	• UniProtKB - P00918 • NCBI - NP_000058.1 • GeneID - 760

Application Details

Suggested Applications:	IF, IHC, Multiplex, WB (Based on references)
Application Note:	Anti-Carbonic Anhydrase II is suitable for use in ELISA, western blot, and immunohistochemistry. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:115,000
IHC:	User Optimized
WB:	1:2,000 - 1:10,000

Formulation

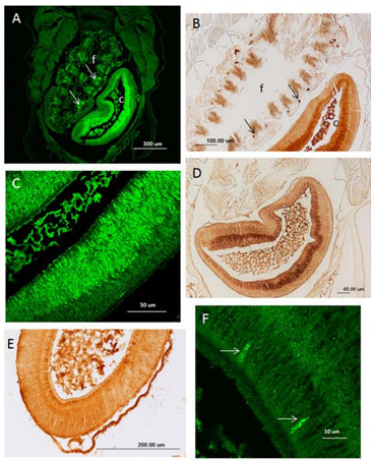
Physical State:	Lyophilized
Concentration:	80 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

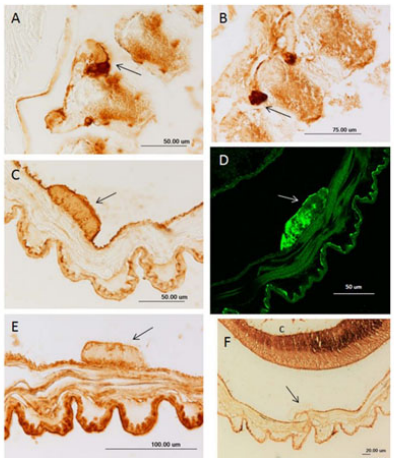
Shipping Condition:	Ambient

Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry
Immunohistochemistry results using Anti-Carbonic Anhydrase II (RABBIT) Antibody.
Transverse sections of Branchiostoma floridae: Strong immunopositivity to NHE (A) and to V-H+- ATPase (B) in luminal board of hepatic coecum (c), the arrows indicate the positive nephridia cells in pharinx (f); immunoreactivity to CFTR (C) and to pendrin (D) in the luminal board of coecum; (E) immunopositivity to CAII in terminal gut cells; (F) the arrows indicate two cells intensely positive to CAII at the luminal board of terminal gut. Fig 2. PMID: 29169695.



Immunohistochemistry
Immunohistochemistry results using Anti-Carbonic Anhydrase II (RABBIT) Antibody.
Transverse sections of Branchiostoma floridae; excretory tubules intensely immunopositive to CFTR (A) and to CAII (B); (C) renal papilla immunopositive to NHE, (D) to CFTR, (E) to CAII; (F) the arrow indicates a renal papilla negative to pendrin. Fig 3. PMID: 29169695.

References

- Kwan GT et al. Immunological characterization of two types of ionocytes in the inner ear epithelium of Pacific Chub Mackerel (Scomber japonicus). *J Comp Physiol B.* (2020)
- Cuoghi I et al. Immunohistochemical analysis of the distribution of molecules involved in ionic and pH regulation in the lancelet Branchiostoma floridae (Hubbs, 1922). *Acta Histochem.* (2018)

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