

**CA4 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7479b****Specification**

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**CA4 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P22748</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35032
Antigen Region	243-272

**CA4 Antibody (C-term) - Additional Information****Gene ID** 762**Other Names**

Carbonic anhydrase 4, Carbonate dehydratase IV, Carbonic anhydrase IV, CA-IV, CA4

**Target/Specificity**

This CA4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 243-272 amino acids from the C-terminal region of human CA4.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CA4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CA4 Antibody (C-term) - Protein Information****Name** CA4 ([HGNC:1375](#))

**Function** Catalyzes the reversible hydration of carbon dioxide into bicarbonate and protons and thus is essential to maintaining intracellular and extracellular pH (PubMed:[15563508](#), PubMed:[17652713](#), PubMed:[7625839](#), PubMed:[16807956](#), PubMed:[16686544](#), PubMed:[17705204](#),

PubMed:[17127057](#), PubMed:[17314045](#), PubMed:[19186056](#), PubMed:[19206230](#), PubMed:[18618712](#)). May stimulate the sodium/bicarbonate transporter activity of SLC4A4 that acts in pH homeostasis (PubMed:[15563508](#)). It is essential for acid overload removal from the retina and retina epithelium, and acid release in the choriocapillaris in the choroid (PubMed:[15563508](#)).

#### Cellular Location

Cell membrane; Lipid-anchor, GPI-anchor

#### Tissue Location

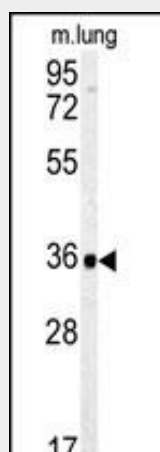
Expressed in the endothelium of the choriocapillaris in eyes (at protein level). Not expressed in the retinal epithelium at detectable levels.

### CA4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CA4 Antibody (C-term) - Images



Western blot analysis of CA4 Antibody (C-term) (Cat.#AP7479b) in mouse lung tissue lysates (35ug/lane). CA4 (arrow) was detected using the purified Pab.

### CA4 Antibody (C-term) - Background

CA4 is a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. This protein is a glycosylphosphatidyl-inositol-anchored membrane isozyme expressed on the luminal surfaces of pulmonary (and certain other) capillaries and proximal renal tubules. Its exact function is not known; however, the protein may have a role in inherited renal abnormalities

of bicarbonate transport.

#### **CA4 Antibody (C-term) - References**

Okuyama T., Sato S. Proc. Natl. Acad. Sci. U.S.A. 89:1315-1319(1992) Okuyama T. Genomics 16:678-684(1993) Yang Z., Alvarez B.V. Hum. Mol. Genet. 14:255-265(2005) Okuyama T. Arch. Biochem. Biophys. 320:315-322(1995)