

**CA4 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7479b****Specification**

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**CA4 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P22748](#)**CA4 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 762**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7479b](/products/AP7479b) was selected from the C-term region of human CA4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CA4 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/15563508), PubMed:[17652713](http://www.uniprot.org/citations/17652713), PubMed:[7625839](http://www.uniprot.org/citations/7625839), PubMed:[16807956](http://www.uniprot.org/citations/16807956), PubMed:[16686544](http://www.uniprot.org/citations/16686544), PubMed:[17705204](http://www.uniprot.org/citations/17705204), PubMed:[17127057](http://www.uniprot.org/citations/17127057), PubMed:[17314045](http://www.uniprot.org/citations/17314045), PubMed:[19186056](http://www.uniprot.org/citations/19186056), PubMed:[19206230](http://www.uniprot.org/citations/19206230)).

href="http://www.uniprot.org/citations/18618712" target="\_blank">18618712</a>). May stimulate the sodium/bicarbonate transporter activity of SLC4A4 that acts in pH homeostasis (PubMed:<a href="http://www.uniprot.org/citations/15563508" target="\_blank">15563508</a>). It is essential for acid overload removal from the retina and retina epithelium, and acid release in the choriocapillaris in the choroid (PubMed:<a href="http://www.uniprot.org/citations/15563508" target="\_blank">15563508</a>).

**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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**CA4 Antibody (C-term) Blocking Peptide - Images****CA4 Antibody (C-term) Blocking Peptide - 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 encodes 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) Blocking Peptide - 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)