

**CA2 / Carbonic Anhydrase II Antibody (HRP)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS12147****Specification**

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**CA2 / Carbonic Anhydrase II Antibody (HRP) - Product Information**

Application	IHC
Primary Accession	<a href="#">P00918</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29kDa KDa

**CA2 / Carbonic Anhydrase II Antibody (HRP) - Additional Information****Gene ID** 760**Other Names**

Carbonic anhydrase 2, 4.2.1.1, Carbonate dehydratase II, Carbonic anhydrase C, CAC, Carbonic anhydrase II, CA-II, CA2

**Target/Specificity**

Assay by immunoelectrophoresis resulted in a single precipitin arc against anti peroxidase, anti rabbit serum, as well as purified and partially purified carbonic anhydrase II (human erythrocytes).

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**

CA2 / Carbonic Anhydrase II Antibody (HRP) is for research use only and not for use in diagnostic or therapeutic procedures.

**CA2 / Carbonic Anhydrase II Antibody (HRP) - Protein Information****Name** CA2**Function**Catalyzes the reversible hydration of carbon dioxide (PubMed: [11327835](http://www.uniprot.org/citations/11327835), PubMed: [11802772](http://www.uniprot.org/citations/11802772), PubMed: [11831900](http://www.uniprot.org/citations/11831900), PubMed: [12056894](http://www.uniprot.org/citations/12056894), PubMed: [12171926](http://www.uniprot.org/citations/12171926), PubMed: [1336460](http://www.uniprot.org/citations/1336460), PubMed: [14736236](http://www.uniprot.org/citations/14736236), PubMed: [15300855](http://www.uniprot.org/citations/15300855), PubMed: [15453828](http://www.uniprot.org/citations/15453828), PubMed: [15667203](http://www.uniprot.org/citations/15667203), PubMed: <a

<http://www.uniprot.org/citations/15865431> target="\_blank">15865431</a>, PubMed:<a href="http://www.uniprot.org/citations/16106378" target="\_blank">16106378</a>, PubMed:<a href="http://www.uniprot.org/citations/16214338" target="\_blank">16214338</a>, PubMed:<a href="http://www.uniprot.org/citations/16290146" target="\_blank">16290146</a>, PubMed:<a href="http://www.uniprot.org/citations/16686544" target="\_blank">16686544</a>, PubMed:<a href="http://www.uniprot.org/citations/16759856" target="\_blank">16759856</a>, PubMed:<a href="http://www.uniprot.org/citations/16807956" target="\_blank">16807956</a>, PubMed:<a href="http://www.uniprot.org/citations/17127057" target="\_blank">17127057</a>, PubMed:<a href="http://www.uniprot.org/citations/17251017" target="\_blank">17251017</a>, PubMed:<a href="http://www.uniprot.org/citations/17314045" target="\_blank">17314045</a>, PubMed:<a href="http://www.uniprot.org/citations/17330962" target="\_blank">17330962</a>, PubMed:<a href="http://www.uniprot.org/citations/17346964" target="\_blank">17346964</a>, PubMed:<a href="http://www.uniprot.org/citations/17540563" target="\_blank">17540563</a>, PubMed:<a href="http://www.uniprot.org/citations/17588751" target="\_blank">17588751</a>, PubMed:<a href="http://www.uniprot.org/citations/17705204" target="\_blank">17705204</a>, PubMed:<a href="http://www.uniprot.org/citations/18024029" target="\_blank">18024029</a>, PubMed:<a href="http://www.uniprot.org/citations/18162396" target="\_blank">18162396</a>, PubMed:<a href="http://www.uniprot.org/citations/18266323" target="\_blank">18266323</a>, PubMed:<a href="http://www.uniprot.org/citations/18374572" target="\_blank">18374572</a>, PubMed:<a href="http://www.uniprot.org/citations/18481843" target="\_blank">18481843</a>, PubMed:<a href="http://www.uniprot.org/citations/18618712" target="\_blank">18618712</a>, PubMed:<a href="http://www.uniprot.org/citations/18640037" target="\_blank">18640037</a>, PubMed:<a href="http://www.uniprot.org/citations/18942852" target="\_blank">18942852</a>, PubMed:<a href="http://www.uniprot.org/citations/1909891" target="\_blank">1909891</a>, PubMed:<a href="http://www.uniprot.org/citations/1910042" target="\_blank">1910042</a>, PubMed:<a href="http://www.uniprot.org/citations/19170619" target="\_blank">19170619</a>, PubMed:<a href="http://www.uniprot.org/citations/19186056" target="\_blank">19186056</a>, PubMed:<a href="http://www.uniprot.org/citations/19206230" target="\_blank">19206230</a>, PubMed:<a href="http://www.uniprot.org/citations/19520834" target="\_blank">19520834</a>, PubMed:<a href="http://www.uniprot.org/citations/19778001" target="\_blank">19778001</a>, PubMed:<a href="http://www.uniprot.org/citations/7761440" target="\_blank">7761440</a>, PubMed:<a href="http://www.uniprot.org/citations/7901850" target="\_blank">7901850</a>, PubMed:<a href="http://www.uniprot.org/citations/8218160" target="\_blank">8218160</a>, PubMed:<a href="http://www.uniprot.org/citations/8262987" target="\_blank">8262987</a>, PubMed:<a href="http://www.uniprot.org/citations/8399159" target="\_blank">8399159</a>, PubMed:<a href="http://www.uniprot.org/citations/8451242" target="\_blank">8451242</a>, PubMed:<a href="http://www.uniprot.org/citations/8485129" target="\_blank">8485129</a>, PubMed:<a href="http://www.uniprot.org/citations/8639494" target="\_blank">8639494</a>, PubMed:<a href="http://www.uniprot.org/citations/9265618" target="\_blank">9265618</a>, PubMed:<a href="http://www.uniprot.org/citations/9398308" target="\_blank">9398308</a>). Can also hydrate cyanamide to urea (PubMed:<a href="http://www.uniprot.org/citations/10550681" target="\_blank">10550681</a>, PubMed:<a href="http://www.uniprot.org/citations/11015219" target="\_blank">11015219</a>). Stimulates the chloride-bicarbonate exchange activity of SLC26A6 (PubMed:<a href="http://www.uniprot.org/citations/15990874" target="\_blank">15990874</a>). Essential for bone resorption and osteoclast differentiation (PubMed:<a href="http://www.uniprot.org/citations/15300855" target="\_blank">15300855</a>). Involved in the regulation of fluid secretion into the anterior chamber of the eye. Contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption.

### Cellular Location

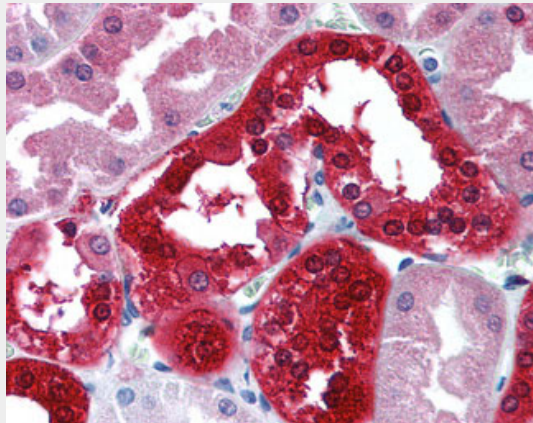
Cytoplasm. Cell membrane. Note=Colocalized with SLC26A6 at the surface of the cell membrane in order to form a bicarbonate transport metabolon. Displaced from the cytosolic surface of the cell membrane by PKC in phorbol myristate acetate (PMA)-induced cells

## CA2 / Carbonic Anhydrase II Antibody (HRP) - 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](#)

#### **CA2 / Carbonic Anhydrase II Antibody (HRP) - Images**



Anti-Carbonic Anhydrase II antibody IHC of human kidney.

#### **CA2 / Carbonic Anhydrase II Antibody (HRP) - Background**

Essential for bone resorption and osteoclast differentiation (By similarity). Reversible hydration of carbon dioxide. Can hydrate cyanamide to urea. Involved in the regulation of fluid secretion into the anterior chamber of the eye. Contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption. Stimulates the chloride-bicarbonate exchange activity of SLC26A6.

#### **CA2 / Carbonic Anhydrase II Antibody (HRP) - References**

- Montgomery J.C., et al. *Nucleic Acids Res.* 15:4687-4687(1987).  
Murakami H., et al. *Genomics* 1:159-166(1987).  
Halleck A., et al. Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.  
Ota T., et al. *Nat. Genet.* 36:40-45(2004).  
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.