

## Recombinant Carbonic Anhydrase IV/CA4 Monoclonal Antibody

**catalog number: AN300189P**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

### Description

<b>Reactivity</b>	Human
<b>Immunogen</b>	Recombinant Human Carbonic Anhydrase IV/ CA4 protein
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Clone</b>	5C10
<b>Purification</b>	Protein A
<b>Buffer</b>	0.2 µm filtered solution in PBS

### Applications Recommended Dilution

<b>IHC-P</b>	1:100-1:500
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### Preparation & Storage

<b>Storage</b>	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Ice bag

### Background

The carbonic anhydrases (or carbonate dehydratases) are classified as metalloenzyme for its zinc ion prosthetic group and form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons, a reversible reaction that takes part in maintaining acid-base balance in blood and other tissues. The carbonic anhydrase (CA) family consists of at least 11 enzymatically active members and a few inactive homologous proteins. Carbonic anhydrase IV (CAIV) is a membrane-associated enzyme anchored to plasma membrane surfaces by a phosphatidylinositol glycan linkage. CAIV is a high-activity isozyme in CO<sub>2</sub> hydration comparable to that of CAII. Furthermore, CAIV is more active in HCO<sub>3</sub><sup>-</sup> dehydration than is CAII. However, the esterase activity of CAIV is decreased 150-fold compared to CAII.

### For Research Use Only