

# Anti-Carbonic anhydrase 2/CA2 antibody ab191343

[17 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-Carbonic anhydrase 2/CA2 antibody
<b>Description</b>	Rabbit polyclonal to Carbonic anhydrase 2/CA2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ELISA, ICC/IF, IHC-Fr, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Full length native protein (purified) corresponding to Human Carbonic anhydrase 2/CA2. Database link: <a href="#">P00918</a>
<b>General notes</b>	<p>This product is the 100 µg version of <a href="#">ab6621</a>.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
<b>Purity</b>	IgG fraction
<b>Purification notes</b>	This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab191343 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration. PubMed: 16586439
WB		1/2000 - 1/10000.
IHC-P		Use at an assay dependent concentration.

## Target

### Function

Essential for bone resorption and osteoclast differentiation (By similarity). Reversible hydration of carbon dioxide. Can hydrates cyanamide to urea. Involved in the regulation of fluid secretion into the anterior chamber of the eye.

### Involvement in disease

Defects in CA2 are the cause of osteopetrosis autosomal recessive type 3 (OPTB3) [MIM:259730]; also known as osteopetrosis with renal tubular acidosis, carbonic anhydrase II deficiency syndrome, Guibaud-Vainsel syndrome or marble brain disease. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. Autosomal recessive osteopetrosis is usually associated with normal or elevated amount of non-functional osteoclasts. OPTB3 is associated with renal tubular acidosis, cerebral calcification (marble brain disease) and in some cases with mental retardation.

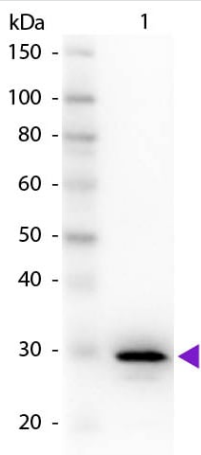
### Sequence similarities

Belongs to the alpha-carbonic anhydrase family.

### Cellular localization

Cytoplasm.

## Images

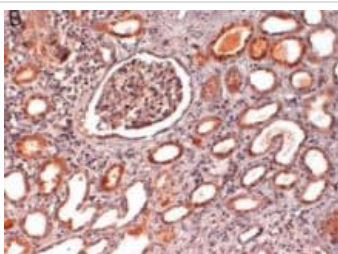


Western blot - Anti-Carbonic anhydrase 2/CA2 antibody (ab191343)

Anti-Carbonic anhydrase 2/CA2 antibody (ab191343) at 1/1000 dilution + Carbonic Anhydrase II at 0.05 µg

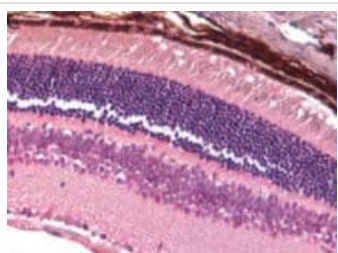
### Secondary

Rabbit Peroxidase at 1/40000 dilution



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic anhydrase 2/CA2 antibody (ab191343)

Formalin-fixed, paraffin-embedded human kidney tissue stained for Carbonic anhydrase 2/CA2 using ab191343 at 4 µg/ml in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic anhydrase 2/CA2 antibody (ab191343)

Formalin-fixed, paraffin-embedded mouse eye tissue stained for Carbonic anhydrase 2/CA2 using ab191343 at 4 µg/ml in immunohistochemical analysis.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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