abcam

# Product datasheet

# Anti-Carbonic Anhydrase II antibody ab7001

1 Image

## Overview

| | |
|---|---|
| **Product name** | Anti-Carbonic Anhydrase II antibody |
| **Description** | Rabbit polyclonal to Carbonic Anhydrase II |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** WB, IP, ELISA, Conjugation, Dot blot |
| **Species reactivity** | **Reacts with:** Cow |
| **Immunogen** | Full length native Carbonic Anhydrase II (purified). |

## Properties

| | |
|---|---|
| **Form** | Lyophilised |
| **Storage instructions** | 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. |
| **Storage buffer** | Preservative: 0.01% Sodium Azide<br>Constituents: 0.15M Sodium Chloride, 0.02M Potassium Phosphate. pH 7.2 |
| **Purity** | IgG fraction |
| **Purification notes** | 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 against 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

Our Abpromise guarantee covers the use of **ab7001** 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 |
|---|---|---|
| WB | | |

| Application | Abreviews | Notes |
|---|---|---|
| IP | | |
| ELISA | | |
| Conjugation | | |
| Dot blot | | |

**Application notes**

Conjugation: Use at an assay dependant dilution.
Dot: Use at an assay dependant dilution.
ELISA: 1/20000 - 1/115000.
IP: Use at an assay dependant dilution.
WB: Use at an assay dependant dilution.

Not tested in other applications.
Optimal dilutions/concentrations should be determined by the end user.

## 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.

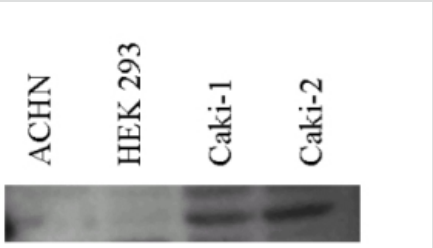
**Sequence similarities**

Belongs to the alpha-carbonic anhydrase family.

**Cellular localization**

Cytoplasm.

## Images




Western blot - Anti-Carbonic Anhydrase II antibody (ab7001)

WB using ab7001. Review by Morena Cobbs submitted 7 January 2004.
WB using ab7001. Review by Morena Cobbs submitted 7 January 2004.



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