Product datasheet

Anti-Carbonic anhydrase 2/CA2 antibody ab182611

Overview

Product name: Anti-Carbonic anhydrase 2/CA2 antibody
Description: Rabbit polyclonal to Carbonic anhydrase 2/CA2
Host species: Rabbit
Specificity: ab182611 detects endogenous level of total Carbonic anhydrase 2/CA2 protein.
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Mouse, Human
Predicted to work with: Rabbit

Immunogen: Fusion protein corresponding to Human Carbonic anhydrase 2/CA2 aa 1-260.
Sequence:
MSHHWGKHKNGPEHGHDFPIAKGERQSPVDIDTH
TAKYDPSTKPLSVS
YDQATSLRLNNFHNVEFDSDQDKAVLKGGLDGT
YRLIQFHFHWGL
DGQSEHTVDKKAELHLVHWNTKGDFGKAVQQ
PDGLAVLGLFLKVG
SAPKPGQKVQDLGDIKGTKKADFTNFAARGLPES
LDYWITYPGSLTPPLLECVTWLKEIPISVSSEQVLKFRKLNFNGEGEPEELMVDNWRPAQPLKNRQKASFK

Database link: BC011949

Positive control: Human colon cancer tissue.

Properties

Form: Liquid
Storage buffer: pH: 7.3
Preservative: 0.05% Sodium azide
 Constituents: 50% Glycerol, 49% PBS
**PBS without Mg2+ and Ca2+**

**Purity**
Immunogen affinity purified

**Clonality**
Polyclonal

**Isotype**
IgG

## Applications

Our Abpromise guarantee covers the use of ab182611 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<td>IHC-P</td>
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<td>1/25 - 1/100.</td>
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## 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

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Immunohistochemical analysis of paraffin-embedded Human colon cancer tissue labeling Carbonic anhydrase 2/CA2 with ab182611 at a 1/20 dilution, on the right is treated with the fusion protein.

Anti-Carbonic anhydrase 2/CA2 antibody (ab182611) at 1/300 dilution + Mouse brain tissue at 40 µg

Secondary
Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution

Developed using the ECL technique.

Predicted band size: 29 kDa

Exposure time: 1 second

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