



CA IV Monoclonal Antibody

Catalog No	YP-mAb-02854
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CA4
Immunogen	Synthesized peptide derived from the Internal region of human CA IV.
Specificity	CA IV Monoclonal Antibody detects endogenous levels of CA IV protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CA4;CA IV;CAIV;CA-IV;Car4;Carbonic anhydrase 4;Carbonate dehydratase IV;Carbonic anhydrase IV
Observed Band	35kD
Calculated Molecular Weight	35kD
Cell Pathway	Cell membrane ; Lipid-anchor, GPI-anchor .
Tissue Specificity	Expressed in the endothelium of the choriocapillaris in eyes (at protein level). Not expressed in the retinal epithelium at detectable levels.
Function	catalytic activity:H(2)CO(3) = CO(2) + H(2)O.,cofactor:Zinc.,disease:Defects in CA4 are the cause of retinitis pigmentosa type 17 (RP17) [MIM:600852]. RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well. RP17 inheritance is autosomal dominant.,enzyme regulation:Inhibited by acetazolamide.,function:Reversible hydration of carbon dioxide. May stimulate the sodium/bicarbonate transporter activity of SLC4A4.,similarity:Belongs to the alpha-carbonic anhydrase family.,subunit:Interacts with SLC4A4.,tissue specificity:Expressed in the endothelium of the choriocapillaris in eyes (at protein level).,



Background

Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. This gene encodes a glycosylphosphatidyl-inositol-anchored membrane isozyme expressed on the luminal surfaces of pulmonary (and certain other) capillaries and proximal renal tubules. Its exact function is not known; however, it may have a role in inherited renal abnormalities of bicarbonate transport. [provided by RefSeq, Jul 2008],

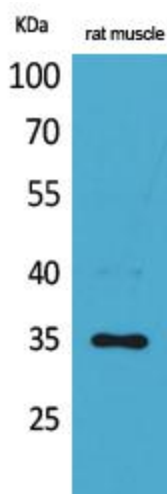
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using CA IV Monoclonal Antibody