Best Tools for immunology Research

CA II Polyclonal Antibody

Catalog No :	YT0573
Reactivity :	Human;Rat
Applications :	WB;IHC;IF;ELISA
Target :	CA II
Fields :	>>Nitrogen metabolism;>>Metabolic pathways;>>Proximal tubule bicarbonate reclamation;>>Collecting duct acid secretion;>>Gastric acid secretion;>>Pancreatic secretion;>>Bile secretion
Gene Name :	CA2
Protein Name :	Carbonic anhydrase 2
Human Gene Id :	760
Human Swiss Prot No :	P00918
Mouse Swiss Prot No :	P00920
Rat Gene Id :	54231
Rat Swiss Prot No :	P27139
Immunogen :	The antiserum was produced against synthesized peptide derived from human CA II. AA range:180-229
Specificity :	CA II Polyclonal Antibody detects endogenous levels of CA II protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 29kD

Cell Pathway : Nitrogen metabolism;

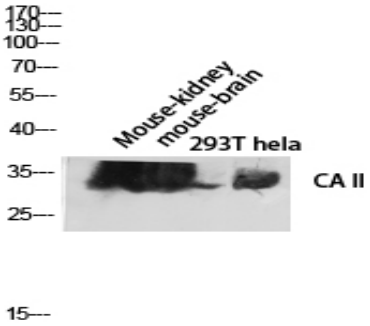
Background : The protein encoded by this gene is one of several isozymes of carbonic anhydrase, which catalyzes reversible hydration of carbon dioxide. Defects in this enzyme are associated with osteopetrosis and renal tubular acidosis. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2014],

Function : catalytic activity:H(2)CO(3) = CO(2) + H(2)O.,cofactor:Zinc.,disease:Defects in CA2 are the cause of autosomal recessive osteopetrosis 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.,function:Essentia

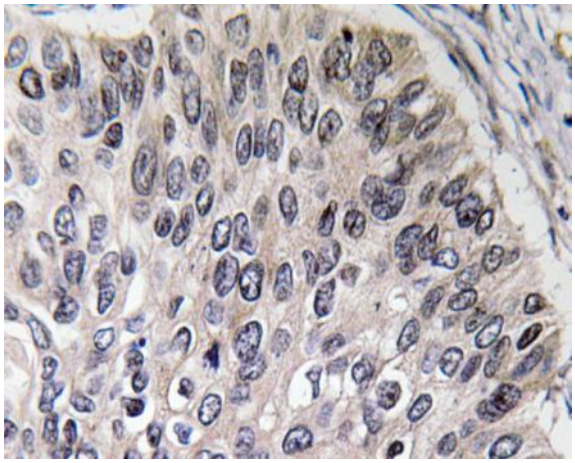
Subcellular Location : Cytoplasm . Cell membrane . Colocalized with SLC26A6 at the surface of the cell membrane in order to form a bicarbonate transport metabolon. Displaced from the cytosolic surface of the cell membrane by PKC in phorbol myristate acetate (PMA)-induced cells. .

Expression : Ovary,

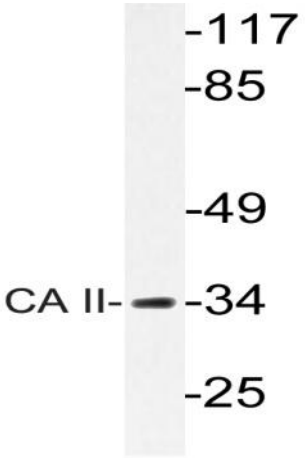
Products Images



Western blot analysis of Mouse-kidney mouse-brain 293T hela lysis using CA II antibody. Antibody was diluted at 1:2000



Immunohistochemistry analysis of CA II antibody in paraffin-embedded human lung carcinoma tissue.



Western blot analysis of lysate from rat heart cells, using CA II antibody.