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Product datasheet for TA600574

CA12 Mouse Monoclonal Capture Antibody [Clone ID: OTI2E9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2E9
Applications:	ELISA
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CA12(NP_001209) produced in HEK293T cell.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	0.5mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Predicted Protein Size:	39.5 kDa
Gene Name:	carbonic anhydrase 12
Database Link:	NP_001209 Entrez Gene 771 Human O43570

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Background: Carbonic anhydrase 12 (CA12) is an enzyme that in humans is encoded by the CA12 gene. 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. This gene product is a type I membrane protein that is highly expressed in normal tissues, such as kidney, colon and pancreas, and has been found to be overexpressed in 10% of clear cell renal carcinomas. Loss of function mutations in the CA12 gene result in defects in fluids and carbonate secretions, which is involved in cystic fibrosis-like syndrome with normal cystic fibrosis transmembrane conductance regulator (CFTR) protein levels, pancreatitis, Sjögren's syndrome and Xerostomia or dry mouth syndrome. It has been shown that CA12 expression is associated with a better prognosis in an unselected series of invasive breast carcinoma patients. Moreover, serum CA12 levels have been found significantly higher in lung cancer patients than in healthy controls, supporting that CA12 may be a promising diagnostic marker for lung cancer.

Synonyms: CA-XII; CAXII; HsT18816; T18816

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Nitrogen metabolism