

CA12 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant CA12.

Catalog # AT1356a

Product Information

Application	WB, E
Primary Accession	O43570
Other Accession	NM_206925
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	1D4
Calculated MW	39451

Additional Information

Gene ID	771
Other Names	Carbonic anhydrase 12, Carbonate dehydratase XII, Carbonic anhydrase XII, CA-XII, Tumor antigen HOM-RCC-313, CA12
Target/Specificity	CA12 (NP_996808, 25 a.a. ~ 124 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	CA12 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

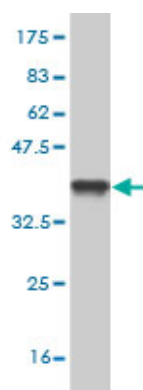
Background

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. 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. Two transcript variants encoding different isoforms have been identified for this gene.

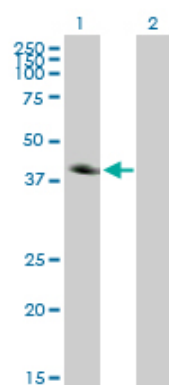
References

Carbonic anhydrases II and XII are up-regulated in osteoclast-like cells in advanced human atherosclerotic plaques-Tampere Vascular Study. Oksala N, et al. *Ann Med*, 2010 Jul. PMID 20509747. Carbonic anhydrase XII promotes invasion and migration ability of MDA-MB-231 breast cancer cells through the p38 MAPK signaling pathway. Hsieh MJ, et al. *Eur J Cell Biol*, 2010 Aug. PMID 20434230. The tumour-associated carbonic anhydrases CA II, CA IX and CA XII in a group of medulloblastomas and supratentorial primitive neuroectodermal tumours: an association of CA IX with poor prognosis. Nordfors K, et al. *BMC Cancer*, 2010 Apr 18. PMID 20398423. Differential modulation of the active site environment of human carbonic anhydrase XII by cationic quantum dots and polylysine. Manokaran S, et al. *Biochim Biophys Acta*, 2010 Jun. PMID 20215053. Expression of transmembrane carbonic anhydrases, CAIX and CAXII, in human development. Liao SY, et al. *BMC Dev Biol*, 2009 Mar 16. PMID 19291313.

Images

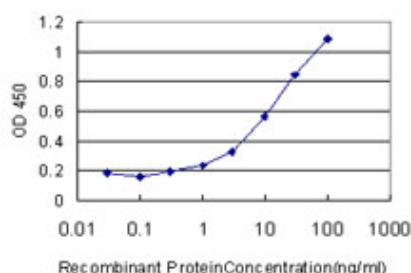


Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



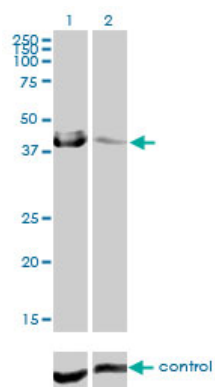
Western Blot analysis of CA12 expression in transfected 293T cell line by CA12 monoclonal antibody (M01), clone 1D4.

Lane 1: CA12 transfected lysate (39.5 KDa).
Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged CA12 is approximately 1 ng/ml as a capture antibody.

Western blot analysis of CA12 over-expressed 293 cell line, cotransfected with CA12 Validated Chimera RNAi (Cat # AT1356a)



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.