10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CA1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1187a

Product Information

Application	WB, E
Primary Accession	P00915
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	9D6D7
Isotype	IgG1
Calculated MW	28870
Description	CA1: carbonic anhydrase I. 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. CA1 is closely linked to CA2 and CA3 genes on chromosome 8, and it encodes a cytosolic protein which is found at the highest level in erythrocytes. Transcript variants of CA1 utilizing alternative polyA_sites have been described in literature.
Immunogen	Purified recombinant fragment of CA1 (aa25-90) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	759
Other Names	Carbonic anhydrase 1, 4.2.1.1, Carbonate dehydratase I, Carbonic anhydrase B, CAB, Carbonic anhydrase I, CA-I, CA1
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CA1
Function	Catalyzes the reversible hydration of carbon dioxide (PubMed: 10550681, PubMed:16506782, PubMed:16686544, PubMed:16807956, PubMed:17127057, PubMed:17314045, PubMed:17407288, PubMed:18618712, PubMed:19186056, PubMed:19206230). Can hydrate cyanamide to urea (PubMed:10550681).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:B0BNN3}.

References

1. Res Exp Med (Berl). 1998 Dec;198(4):175-85. 2. Drugs Exp Clin Res. 2001;27(2):53-60.

Images

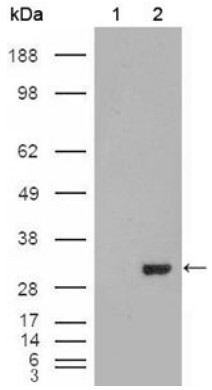

Figure 1: Western blot analysis using CA1 mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY CA1 cDNA (2).

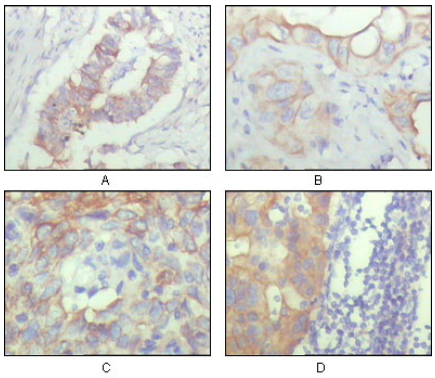

Figure 1: Immunohistochemical analysis of paraffin-embedded human ovary carcinoma (A), kidney carcinoma (B), lung carcinoma (C) and breast carcinoma (D), showing cytoplasmic and membrane localization with DAB staining using ALCAM mouse mAb.