

Rabbit anti-Human Carbonic Anhydrase VB Monoclonal Antibody | anti-CA5B antibody

Recombinant Anti-Carbonic Anhydrase VB Antibody, Rabbit Monoclonal

CATALOG # AAA255557	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunohistochemistry
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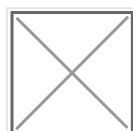
PRODUCT SYNONYMS

Carbonic Anhydrase VB; Monoclonal Antibody; Recombinant Anti-Carbonic Anhydrase VB Antibody; Rabbit Monoclonal; Carbonic Anhydrase VB/CA5B Antibody; Rabbit MAb; carbonic anhydrase VB; mitochondrial; Anti-CA-VB Antibody; Anti-MGC39962 Antibody; anti-CA5B antibody

PRODUCT SPECIFICATIONS

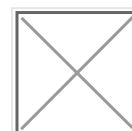
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	008
Specificity	Human Carbonic Anhydrase VB/CA5B. No cross-reactivity in ELISA with Human CA8, Human CA4 Has cross-reactivity in ELISA with Human CA2, Human CA3, Human CA5A
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CA5B antibody	IHC (Immunohistochemistry)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human Carbonic Anhydrase VB/CA5B protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human Carbonic Anhydrase VB/CA5B (rh Carbonic Anhydrase VB/CA5B).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Immunochemical staining of human CA5B in human kidney with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).



IHC (Immunohistochemistry)

Immunochemical staining of human CA5B in human lung with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).



IHC (Immunohistochemistry)
Immunochemical staining of human CA5B in human placenta with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

Related Product Information for anti-CA5B antibody	Carbonic anhydrase 5B, also known as carbonate dehydratase VB, carbonic anhydrase VB, CA-VB and CA5B, is amember of the alpha-carbonic anhydrase family. The strongest expression of CA5B/CA-VB is in heart, pancreas, kidney, placenta, lung, and skeletal muscle. It is not expressed in liver. Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes first discovered in 1933 that catalyze the reversible hydration of carbon dioxide. CAs 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. CAs show extensive diversity in tissue distribution and in their subcellular localization. CA5B/CA-VB is localized in the mitochondria and shows the highest sequence similarity to the other mitochondrial CA5A/CA-VA. CA5B/CA-VB has a wider tissue distribution than CA5A/CA-VA, which is restricted to the liver. The differences in tissue distribution suggest that the two mitochondrial carbonic anhydrases evolved to assume different physiologic roles. CA5A/CA-VA is activated by histamine, L-adrenaline, L-and D-histidine, and L-and D-phenylalanine. It is inhibited by coumarins, sulfonamide derivatives such as acetazolamide and Foscarnet (phosphonoformate trisodium salt). CA5B/CA-VB is inhibited by coumarins, sulfonamide derivatives such as acetazolamide (AZA), saccharin and Foscarnet (phosphonoformate trisodium salt).
References	Fujikawa-Adachi K, et al., 1999, J Biol Chem. 274 (30): 21228-33. Liao, S.Y. et al., 2003, J. Med. Genet. 40:257-262. Temperini C.et al., 2006, Chemistry 12: 7057-66. Temperini C.et al., 2006, J. Med. Chem. 49: 3019-27. Supuran, C. T. et al., 2008, Curr Pharm Des. 14 (7): 601-602. Elleuche, S. et al., 2009, Curr Genet. 55 (2): 211-222. Maresca, A.et al., 2009, J. Am. Chem. Soc. 131:3057-3062.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6005723
NCBI GeneID	11238
NCBI Accession #	NP_009151.1
NCBI GenBank Nucleotide #	NM_007220.3
UniProt Accession #	Q9Y2D0; A8K4T5
Molecular Weight	36,434 Da
NCBI Official Full Name	carbonic anhydrase 5B, mitochondrial
NCBI Official Synonym Full Names	carbonic anhydrase VB, mitochondrial
NCBI Official Symbol	CA5B
NCBI Official Synonym Symbols	CA-VB
NCBI Protein Information	carbonic anhydrase 5B, mitochondrial; carbonic dehydratase; carbonate dehydratase VB
UniProt Protein Name	Carbonic anhydrase 5B, mitochondrial
UniProt Gene Name	CA5B
UniProt Synonym Gene Names	CA-VB
UniProt Entry Name	CAH5B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

