

Rabbit anti-Human Carbonic Anhydrase III Monoclonal Antibody | anti-CA3 antibody

Recombinant Anti-Carbonic Anhydrase III Antibody, Rabbit Monoclonal

CATALOG # AAA254969	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunoprecipitation, Western Blot
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PRODUCT SYNONYMS

Carbonic Anhydrase III; Monoclonal Antibody; Recombinant Anti-Carbonic Anhydrase III Antibody; Rabbit Monoclonal; Carbonic Anhydrase III/CA3 Antibody; Rabbit MAb; carbonic anhydrase III; Anti-CAIII Antibody; Anti-Car3 Antibody; anti-CA3 antibody

PRODUCT SPECIFICATIONS

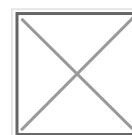
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	006
Specificity	Human Carbonic Anhydrase III/CA3
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CA3 antibody	IP (Immunoprecipitation), WB (Western Blot)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human Carbonic Anhydrase III/CA3 protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human Carbonic Anhydrase III/CA3 (rh Carbonic Anhydrase III/CA3).
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



IP (Immunoprecipitation)

CA3 was immunoprecipitated using: Lane A: 0.5 mg HepG2 Whole Cell Lysate 2 uL anti-CA3 rabbit monoclonal antibody and 15 ul of 50 % Protein G agarose. Primary antibody: Anti-CA3 rabbit monoclonal antibody, at 1:250 dilution Secondary antibody: Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution Developed using the odssey technique. Performed under reducing conditions. Predicted band size: 30 kDa Observed band size: 30 kDa



WB (Western Blot)

Anti-CA3 rabbit monoclonal antibody at 1:500 dilution Lane A: HepG2 Whole Cell Lysate Lane B: K562 Whole Cell Lysate Lysates/proteins at 30 ug per lane. Secondary Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. Developed using the Odyssey technique. Performed under reducing conditions. Predicted band size: 30 kDa Observed band size: 34 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-CA3 antibody	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. Carbonic anhydrases (CAs) form a family of enzymes that catalyze the rapid conversion of carbon dioxide and water to bicarbonate and protons, a reaction that occurs rather slowly in the absence of a catalyst. The active site of most carbonic anhydrases contains a zinc ion, they are therefore classified as metalloenzymes. Several forms of carbonic anhydrase occur in nature. The primary function of the enzyme in animals is to interconvert carbon dioxide and bicarbonate to maintain acid-base balance in blood and other tissues, and to help transport carbon dioxide out of tissues. Plants contain a different form called beta-carbonic anhydrase, which, from an evolutionary standpoint, is a distinct enzyme, but participates in the same reaction and also uses a zinc ion in its active site. Carbonic anhydrase 3, also known as Carbonate dehydratase III, CA-III and CA3, is a cytoplasm protein which belongs to the alpha-carbonic anhydrase family. CA3 is activated by proton donors such as imidazole and the dipeptide histidylhistidine. It is inhibited by coumarins and sulfonamide derivatives such as acetazolamide. At 6 weeks gestation, transcripts accumulate at low levels in the somites and at high levels throughout the notochord. As gestation continues, CA3 becomes abundant in all developing muscle masses and continues at high to moderate levels in the notochord.
References	Ivanov, S.V. et al., 1998, Proc. Natl. Acad. Sci. USA 95:12596-601. Sowden J. et al., 1998, Gene 214:157-65. Strausberg, R.L. et al., 2002, Proc. Natl. Acad. Sci. USA 99:16899-903. Liao, S.Y. et al., 2003, J. Med. Genet. 40: 257-62. Bataller, L. et al., 2004, Ann Neurol 56 (4): 575-9.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4885099
NCBI GeneID	761
NCBI Accession #	NP_005172.1
NCBI GenBank Nucleotide #	NM_005181.3
UniProt Accession #	P07451; O60842; B2R867; B3KUC8
Molecular Weight	29,557 Da
NCBI Official Full Name	carbonic anhydrase 3
NCBI Official Synonym Full Names	carbonic anhydrase III, muscle specific
NCBI Official Symbol	CA3
NCBI Official Synonym Symbols	Car3; CAIII
NCBI Protein Information	carbonic anhydrase 3; CA-III; carbonate dehydratase III
UniProt Protein Name	Carbonic anhydrase 3
UniProt Gene Name	CA3
UniProt Synonym Gene Names	CA-III
UniProt Entry Name	CAH3_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.