

## Rabbit Carbonic Anhydrase III Polyclonal Antibody | anti-CA3 antibody

Anti-Carbonic Anhydrase III Antibody, Rabbit Polyclonal

| CATALOG # | HOST   | REACTIVITY                                                                                                         | APPLICATIONS                      |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| AAA255125 | Rabbit | MousePredicted to React with: Human, Rat, Bovine, Pig (Species predicted to react based on 100% sequence homology) | Immunoprecipitation, Western Blot |

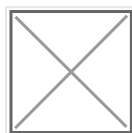
### PRODUCT SYNONYMS

Carbonic Anhydrase III; Polyclonal Antibody; Anti-Carbonic Anhydrase III Antibody; Rabbit Polyclonal; Carbonic Anhydrase III/CA3 Antibody; Rabbit PAb; Antigen Affinity Purified; carbonic anhydrase III; anti-CA3 antibody

### PRODUCT SPECIFICATIONS

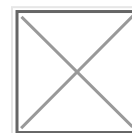
|                                               |                                                                                                                                                                                                                                                    |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                          | Rabbit                                                                                                                                                                                                                                             |
| Reactivity                                    | Mouse<br>Predicted to React with: Human, Rat, Bovine, Pig (Species predicted to react based on 100% sequence homology)                                                                                                                             |
| Clonality                                     | Polyclonal                                                                                                                                                                                                                                         |
| Isotype                                       | Rabbit IgG                                                                                                                                                                                                                                         |
| Specificity                                   | Mouse Carbonic Anhydrase III                                                                                                                                                                                                                       |
| Purity/Purification                           | Protein A & Antigen Affinity                                                                                                                                                                                                                       |
| Form/Format                                   | Liquid; PBS, pH7.0 with 0.03% Proclin300                                                                                                                                                                                                           |
| Applicable Applications for anti-CA3 antibody | IP (Immunoprecipitation), WB (Western Blot)                                                                                                                                                                                                        |
| Immunogen                                     | A synthetic peptide corresponding to the center region of the Mouse Carbonic Anhydrase III/CA3                                                                                                                                                     |
| Conjugation                                   | Unconjugated                                                                                                                                                                                                                                       |
| Preparation                                   | Produced in rabbits immunized with a synthetic peptide corresponding to the center region of the Mouse Carbonic Anhydrase III/CA3, and purified by antigen affinity chromatography.                                                                |
| 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. Avoid repeated freeze-thaw cycles. |

### IMAGES



#### IP (Immunoprecipitation)

CA3 was immunoprecipitated using: Lane A: 0.5 mg Mouse pancreas Whole Cell Lysate + 4 uL anti-CA3 rabbit polyclonal antibody and 60 ug of Immunomagnetic beads Protein A/G. Primary antibody: Anti-CA3 rabbit polyclonal antibody, at 1:100 dilution. Secondary antibody: Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 30 kDa. Observed band size: 28 kDa.



#### WB (Western Blot)

Anti-CA3 rabbit polyclonal antibody at 1:500 dilution. Lane A: Mouse spleen tissue lysate. Lane B: Mouse pancreas tissue lysate. Lysates/proteins at 30 ug per lane. Secondary: Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 30 kDa. Observed band size: 30 kDa.

## ADDITIONAL INFORMATION

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|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-CA3 antibody</b> | 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. |
| <b>References</b>                                        | 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

|                                         |                                                 |
|-----------------------------------------|-------------------------------------------------|
| <b>NCBI GI #</b>                        | <a href="#">31982861</a>                        |
| <b>NCBI GeneID</b>                      | <a href="#">12350</a>                           |
| <b>NCBI Accession #</b>                 | <a href="#">NP_031632.2</a>                     |
| <b>NCBI GenBank Nucleotide #</b>        | <a href="#">NM_007606.3</a>                     |
| <b>UniProt Accession #</b>              | <a href="#">P16015</a> ; <a href="#">Q9ERN8</a> |
| <b>Molecular Weight</b>                 | 29,366 Da                                       |
| <b>NCBI Official Full Name</b>          | carbonic anhydrase 3                            |
| <b>NCBI Official Synonym Full Names</b> | carbonic anhydrase 3                            |
| <b>NCBI Official Symbol</b>             | Car3                                            |
| <b>NCBI Official Synonym Symbols</b>    | Ca3; Car-3; BB219044                            |
| <b>NCBI Protein Information</b>         | carbonic anhydrase 3                            |
| <b>UniProt Protein Name</b>             | Carbonic anhydrase 3                            |
| <b>UniProt Gene Name</b>                | <b>Ca3</b>                                      |
| <b>UniProt Synonym Gene Names</b>       | Car3; CA-III                                    |

**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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

Online datasheet: <https://stage.aaabiotech.com/polyclonal/carbonic-anhydrase-iii-antibody-immunoprecipitation-western-blot-elisa/255125>