

## Summary

|                        |                                  |
|------------------------|----------------------------------|
| <b>Production Name</b> | CA VB Rabbit Polyclonal Antibody |
| <b>Description</b>     | Rabbit Polyclonal Antibody       |
| <b>Host</b>            | Rabbit                           |
| <b>Application</b>     | IF, WB, IHC, ELISA               |
| <b>Reactivity</b>      | Human, Mouse, Rat                |

## Performance

|                     |  |
|---------------------|--|
| <b>Conjugation</b>  | Unconjugated   |
| <b>Modification</b> | Unmodified   |
| <b>Isotype</b>      | IgG  |
| <b>Clonality</b>    | Polyclonal   |
| <b>Form</b>         | Liquid   |
| <b>Storage</b>      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| <b>Buffer</b>       | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.       |
| <b>Purification</b> | Affinity purification  |

## Immunogen

|                          |   |
|--------------------------|---|
| <b>Gene Name</b>         | CA5B  |
| <b>Alternative Names</b> | CA5B; Carbonic anhydrase 5B; mitochondrial; Carbonate dehydratase VB; Carbonic anhydrase VB; CA-VB        |
| <b>Gene ID</b>           | 11238.0   |
| <b>SwissProt ID</b>      | Q9Y2D0. The antiserum was produced against synthesized peptide derived from human CA5B. AA range: 241-290 |

## Application

|                         |  |
|-------------------------|--|
| <b>Dilution Ratio</b>   | WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications. |
| <b>Molecular Weight</b> | 38kD   |

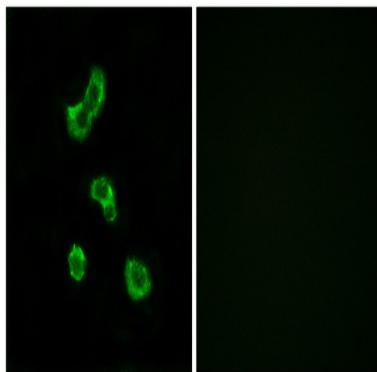
## Background

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. They show extensive diversity in tissue distribution and in their subcellular localization. CA VB is localized in the mitochondria and shows the highest sequence similarity to the other mitochondrial CA, CA VA. It has a wider tissue distribution than 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. [provided by RefSeq, Jul 2008], catalytic activity:  $\text{H}_2\text{CO}_3 = \text{CO}_2 + \text{H}_2\text{O}$ , cofactor: Zinc, function: Reversible hydration of carbon dioxide, similarity: Belongs to the alpha-carbonic anhydrase family, tissue specificity: Strongest expression in heart, pancreas, kidney, placenta, lung, and skeletal muscle. Not expressed in liver.,

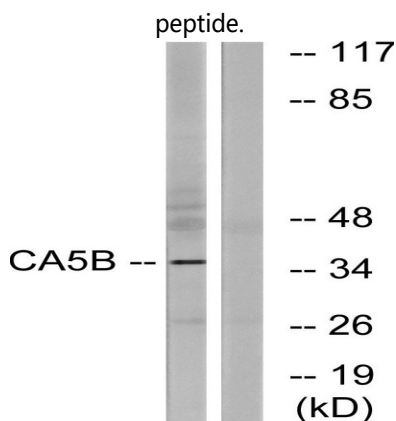
## Research Area

Nitrogen metabolism;

## Image Data



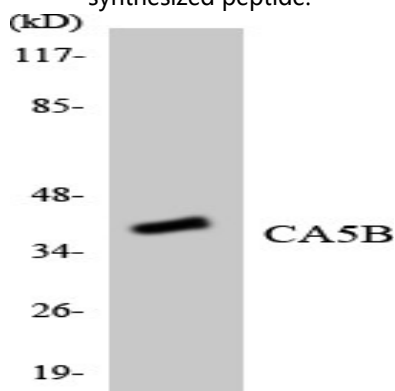
Immunofluorescence analysis of MCF7 cells, using CA5B Antibody. The picture on the right is blocked with the synthesized



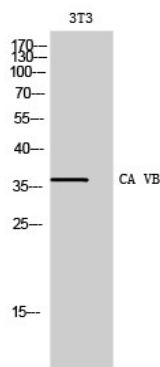
**Product Name: CA VB Rabbit Polyclonal Antibody**  
**Catalog #: APRab07771**



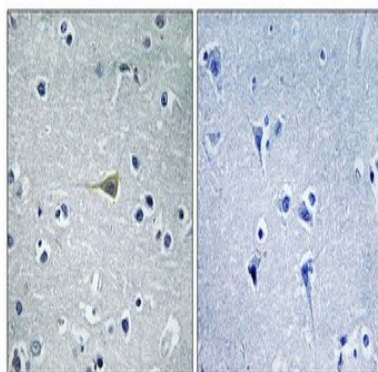
Western blot analysis of lysates from NIH/3T3 cells, using CA5B Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HT-29 cells using CA5B antibody.



Western Blot analysis of 3T3 cells using CA VB Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°, overnight) . High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

## Note

For research use only.