

## Anti-Carbonic Anhydrase VB Antibody (31792)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	31792
Purification:	Protein A

## Applications

Verified Activity:	1. Immunochemical staining of human CA5B in human placenta with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).
	2. Immunochemical staining of human CA5B in human lung with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).
	3. Immunochemical staining of human CA5B in human kidney with rabbit monoclonal antibody (1:100, formalin-fixed paraffin embedded sections).
Application:	IHC-P
Recommended	IHC-P: 1:50-1:200

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human Carbonic Anhydrase VB / CA5B protein (TMPY-02133)
Antigen Species:	Human
Synonyms:	CA-VB;MGC39962;carbonic anhydrase VB, mitochondrial

## Research Background

Carbonic anhydrase 5B, also known as carbonate dehydratase VB, carbonic anhydrase VB, CA-VB and CA5B, is a member 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

## A DRUG SCREENING EXPERT

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(phosphonoformate trisodium salt).

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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