

CA VB (H-50): sc-67328

BACKGROUND

Carbonic anhydrases (CAs) are members of a large family of zinc metalloenzymes responsible for catalyzing the reversible hydration of carbon dioxide. CAs show extensive diversity in their distribution and subcellular localization. They are involved in a variety of biological processes, including calcification, bone resorption, respiration, acid-base balance and the formation of aqueous humor, saliva, gastric juice and cerebrospinal fluid. CA VB, also known as carbonate dehydratase VB, is one of two isoforms of CA V. It localizes to the mitochondria and is involved in metabolic processes. CA VB is predominantly expressed in heart, pancreas, lung, placenta, kidney and skeletal muscle. It exhibits highest homology with family member CA VA (the second isoform of CA V); however, unlike CA VA, it is not expressed in the liver, suggesting that it plays a significantly different physiological role.

CHROMOSOMAL LOCATION

Genetic locus: CA5B (human) mapping to Xp22.2; Car5b (mouse) mapping to X F5.

SOURCE

CA VB (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-terminus of CA VB of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CA VB (H-50) is recommended for detection of CA VB of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CA VB (H-50) is also recommended for detection of CA VB in additional species, including canine.

Suitable for use as control antibody for CA VB siRNA (h): sc-62034, CA VB siRNA (m): sc-62035, CA VB shRNA Plasmid (h): sc-62034-SH, CA VB shRNA Plasmid (m): sc-62035-SH, CA VB shRNA (h) Lentiviral Particles: sc-62034-V and CA VB shRNA (m) Lentiviral Particles: sc-62035-V.

Molecular Weight of CA VB precursor: 36 kDa.

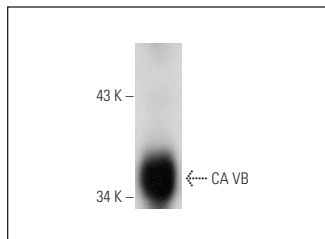
Molecular Weight of mature CA VB: 32 kDa.

Positive Controls: mouse liver extract: sc-2256 or rat liver extract: sc-2395.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CA VB (H-50): sc-67328. Western blot analysis of CA VB expression in rat liver tissue extract.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **CA VB (D-9): sc-393852** or **CA VB (G-1): sc-393851**, our highly recommended monoclonal alternatives to CA VB (H-50).