

CA VIII (S-16): sc-54705



The Power to Question

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 VIII, also referred to as carbonic anhydrase-related protein VIII (CA-RP VIII), is a member of the carbonic anhydrase family that lacks the Zn-binding motif essential for carbonic anhydrase activity. For this reason, CA VIII does not exhibit catalytic activity. Instead it may be important in synaptic vesicle formation and transport. In addition, CA VIII may be involved in the invasiveness of non-small cell lung carcinomas and may also play a role in the growth of colon cancer cells.

REFERENCES

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4. Jiao, Y., et al. 2005. Carbonic anhydrase-related protein VIII deficiency is associated with a distinctive lifelong gait disorder in waddles mice. *Genetics* 171: 1239-1246.
5. Ishihara, T., et al. 2006. Carbonic anhydrase-related protein VIII increases invasiveness of non-small cell lung adenocarcinoma. *Virchows Arch.* 448: 830-837.
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8. Supuran, C.T. 2007. Carbonic anhydrases as drug targets-an overview. *Curr. Top. Med. Chem.* 7: 825-833.
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CHROMOSOMAL LOCATION

Genetic locus: CA8 (human) mapping to 8q12.1; Car8 (mouse) mapping to 4 A1.

SOURCE

CA VIII (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CA VIII of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-54705 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CA VIII (S-16) is recommended for detection of CA VIII of mouse, rat and human 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).

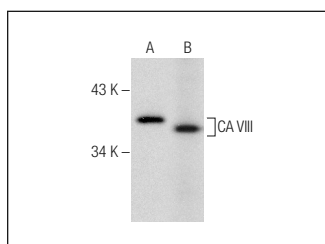
CA VIII (S-16) is also recommended for detection of CA VIII in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CA VIII siRNA (h): sc-62038, CA VIII siRNA (m): sc-62039, CA VIII shRNA Plasmid (h): sc-62038-SH, CA VIII shRNA Plasmid (m): sc-62039-SH, CA VIII shRNA (h) Lentiviral Particles: sc-62038-V and CA VIII shRNA (m) Lentiviral Particles: sc-62039-V.

Molecular Weight of CA VIII: 33 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, mouse cerebellum extract: sc-2403 or SK-MEL-28 cell lysate: sc-2236.

DATA



CA VIII (S-16): sc-54705. Western blot analysis of CA VIII expression in C32 whole cell lysate (A) and mouse cerebellum tissue extract (B).

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **CA VIII (E-4): sc-166626** or **CA VIII (C-5): sc-271162**, our highly recommended monoclonal alternatives to CA VIII (S-16).