

CA VII (h): 293T Lysate: sc-115027

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 VII, also known as carbonate dehydratase VII, is a highly conserved mammalian carbonic anhydrase. It localizes to the cytoplasm and is ubiquitously expressed at low levels, but is present at significant levels in brain and salivary glands. CA VII may influence GABAergic excitation in neurons and contribute to the triggering of convulsions common to neurological disorders. Due to the high expression level of CA VII in brain, it may be useful in the development of pharmacologic agents for managing epilepsy and Alzheimer's disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CA7 (human) mapping to 16q22.1.

PRODUCT

CA VII (h): 293T Lysate represents a lysate of human CA VII transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

CA VII (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CA VII antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

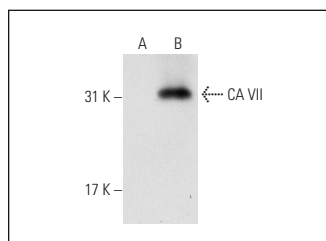
CA VII (G-7): sc-166721 is recommended as a positive control antibody for Western Blot analysis of enhanced human CA VII expression in CA VII transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

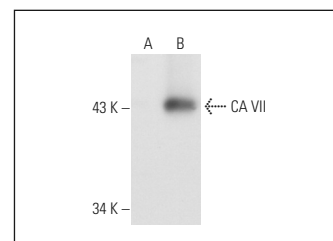
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CA VII (G-7): sc-166721. Western blot analysis of CA VII expression in non-transfected: sc-117752 (A) and human CA VII transfected: sc-115027 (B) 293T whole cell lysates.



CA VII (H-4): sc-166783. Western blot analysis of CA VII expression in non-transfected: sc-117752 (A) and human CA VII transfected: sc-115027 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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