

CA I (h): 293T Lysate: sc-114146

BACKGROUND

Carbonic anhydrases (CAs), also designated carbonate dehydratases or carbonate hydrolyases, form a large family of genes that encode zinc metalloenzymes of great physiologic importance. As catalysts of the reversible hydration of carbon dioxide, these enzymes participate in a variety of biologic processes; including respiration, acid-base balance, bone resorption and calcification as well as the formation of aqueous humor, cerebrospinal fluid, saliva and gastric acid. Genes in the α -carbonic anhydrase family encode either active carbonic anhydrase isozymes or "acatalytic" (devoid of CO₂ hydration activity) carbonic anhydrase-related proteins. Human CA I (CA1) is encoded by the CA1 gene, which has been assigned to chromosome 8 and harbors a cluster of CA genes. CA I localizes to the cytoplasm and research indicates that a severe deficiency of CA I does not result in any obvious hematological or renal consequences.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CA1 (human) mapping to 8q21.2.

PRODUCT

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

APPLICATIONS

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

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

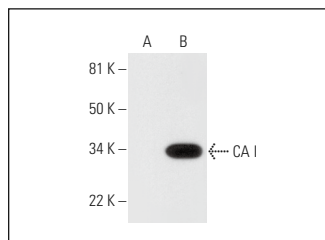
CA I (F-11): sc-393497 is recommended as a positive control antibody for Western Blot analysis of enhanced human CA I expression in CA I transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

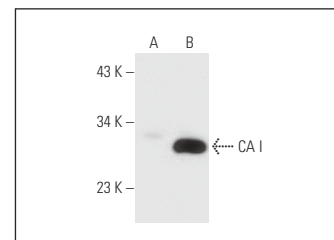
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 I (F-11): sc-393497. Western blot analysis of CA I expression in non-transfected: sc-117752 (A) and human CA I transfected: sc-114146 (B) 293T whole cell lysates.



CA I (G-6): sc-271452. Western blot analysis of CA I expression in non-transfected: sc-117752 (A) and human CA I transfected: sc-114146 (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.