

CA XIII (G-16): sc-54767

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 XIII, also referred to as carbonate dehydratase XIII, is predominantly expressed in spleen, prostate, thymus, ovary, testis, colon and small intestine localizing to the cytoplasm. It exhibits highest homology with family members CA I, CA II and CA III. CA XIII may play a role in embryogenesis. Efficient inhibitors of CA XIII activity are sulfaniloyl-sulfonamide type inhibitors.

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CHROMOSOMAL LOCATION

Genetic locus: Car13 (mouse) mapping to 3 A1.

SOURCE

CA XIII (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CA XIII of mouse origin.

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-54767 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CA XIII (G-16) is recommended for detection of CA XIII of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 XIII (G-16) is also recommended for detection of CA XIII in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CA XIII siRNA (m): sc-62045, CA XIII shRNA Plasmid (m): sc-62045-SH and CA XIII shRNA (m) Lentiviral Particles: sc-62045-V.

Molecular Weight of CA XIII: 30 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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