

# CA XI (L-16): sc-54742

## 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 XI, also referred to as carbonic anhydrase-related protein 11 precursor (CA-RP XI) or carbonic anhydrase-related protein 2 (CA-RP II), is a member of the carbonic anhydrase family that lacks two of the three Zn-binding motifs essential for carbonic anhydrase activity. For this reason, CA XI does not exhibit catalytic activity. It is expressed primarily in brain but is also found in spinal cord and thyroid. CA XI may play a role in brain development.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CA11 (human) mapping to 19q13.33; Car11 (mouse) mapping to 7 B4.

## SOURCE

CA XI (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CA XI 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.

Blocking peptide available for competition studies, sc-54742 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CA XI (L-16) is recommended for detection of CA XI of mouse, rat and human 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 XI (L-16) is also recommended for detection of CA XI in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for CA XI siRNA (h): sc-62042, CA XI siRNA (m): sc-62043, CA XI shRNA Plasmid (h): sc-62042-SH, CA XI shRNA Plasmid (m): sc-62043-SH, CA XI shRNA (h) Lentiviral Particles: sc-62042-V and CA XI shRNA (m) Lentiviral Particles: sc-62043-V.

Molecular Weight of CA XI: 36 kDa.

Positive Controls: Mouse brain extract: sc-2253.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.