SANTA CRUZ BIOTECHNOLOGY, INC.

Calpain 10 (C-20): sc-48454

The Power to Question

BACKGROUND

The CAPN10 (Calpain 10) gene encodes a ubiquitously expressed member of the Calpain-like cysteine protease family and shows association with type 2 diabetes Research suggests that Calpain 10 plays a role in an innovative pathway involved in the pathophysiology of diabetes, where Calpain-10 represents the third example of a protease contributing to the advancement of diabetes, the others being prohormone convertase-1 and prohormone-processing carboxypeptidase E, both of which are associated with diabetes and obesity. The CAPN10 human cDNA encodes a 672 amino-acid protein that shares 81.7% identity with the mouse ortholog, and analysis of human cDNA clones displays an intricate pattern of alternative splicing. CAPN10, which presumably plays a role in the regulation of Insulin secretion, is thought to contain a signature of the effects of positive natural selection within its genetic sequence.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CAPN10 (human) mapping to 2q37.3; Capn10 (mouse) mapping to 1 D.

SOURCE

Calpain 10 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Calpain 10 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-48454 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calpain 10 (C-20) is recommended for detection of Calpain 10 isoform A 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).

Calpain 10 (C-20) is also recommended for detection of Calpain 10 isoform A in additional species, including canine and porcine.

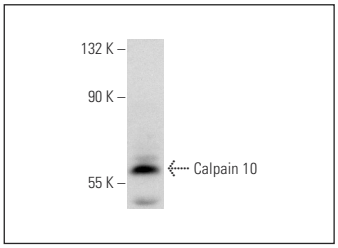
Suitable for use as control antibody for Calpain 10 siRNA (h): sc-60318, Calpain 10 siRNA (m): sc-60319, Calpain 10 shRNA Plasmid (h): sc-60318-SH, Calpain 10 shRNA Plasmid (m): sc-60319-SH, Calpain 10 shRNA (h) Lentiviral Particles: sc-60318-V and Calpain 10 shRNA (m) Lentiviral Particles: sc-60319-V.

Molecular Weight of Calpain 10: 75 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Calpain 10 (C-20): sc-48454. Western blot analysis of Calpain 10 expression in 293T whole cell lysate.

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.