

Calcipressin-3 (C-14): sc-79888

BACKGROUND

Calcipressin-3, also known as RCAN3 (regulator of calcineurin 3), DSCR1L2 (down syndrome candidate region 1-like protein 2) and MCIP3 (myocyte-enriched calcineurin-interacting protein 3), is a 241 amino acid protein that potentially is involved in central nervous system development. As its name suggests, Calcipressin-3 binds to calcineurin. Overexpression of Calcipressin-3 results in inhibition of calcineurin activity towards the nuclear factor of activated T cells (NFAT) transcription factors and also downregulates NFAT-dependent cytokine gene expression in activated Jurkat T cells. Though expressed ubiquitously at low levels, high expression of Calcipressin-3 is found in kidney, heart, liver, peripheral blood lymphocytes and skeletal muscle. Calcipressin-3 also interacts with cardiac Troponin I, suggesting that it may play a role in cardiac contraction events. There are two isoforms of Calcipressin-3 that are produced as a result of alternative splicing events.

REFERENCES

1. Strippoli, P., et al. 2000. The murine DSCR1-like (down syndrome candidate region 1) gene family: conserved syntenicity with the human orthologous genes. *Gene* 257: 223-232.
2. Strippoli, P., et al. 2000. A new gene family including DSCR1 (down syndrome candidate region 1) and ZAKI-4: characterization from yeast to human and identification of DSCR1-like 2, a novel human member (DSCR1L2). *Genomics* 64: 252-263.
3. Ermak, G., et al. 2006. RCAN1 (DSCR1 or Adapt78) stimulates expression of GSK-3 β . *FEBS J.* 273: 2100-2109.
4. Canaider, S., et al. 2006. Proteins encoded by human down syndrome critical region gene 1-like 2 (DSCR1L2) mRNA and by a novel DSCR1L2 mRNA isoform interact with cardiac Troponin I (TNNI3). *Gene* 372: 128-136.
5. Abbasi, S., et al. 2006. Protein kinase-mediated regulation of calcineurin through the phosphorylation of modulatory calcineurin-interacting protein 1. *J. Biol. Chem.* 281: 7717-7726.
6. Zobel, C., et al. 2007. Mechanisms of Ca²⁺-dependent calcineurin activation in mechanical stretch-induced hypertrophy. *Cardiology* 107: 281-290.

CHROMOSOMAL LOCATION

Genetic locus: RCAN3 (human) mapping to 1p36.11; Rcan3 (mouse) mapping to 4 D3.

SOURCE

Calcipressin-3 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Calcipressin-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79888 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calcipressin-3 (C-14) is recommended for detection of Calcipressin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for Calcipressin-3 siRNA (h): sc-72777, Calcipressin-3 siRNA (m): sc-72778, Calcipressin-3 shRNA Plasmid (h): sc-72777-SH, Calcipressin-3 shRNA Plasmid (m): sc-72778-SH, Calcipressin-3 shRNA (h) Lentiviral Particles: sc-72777-V and Calcipressin-3 shRNA (m) Lentiviral Particles: sc-72778-V.

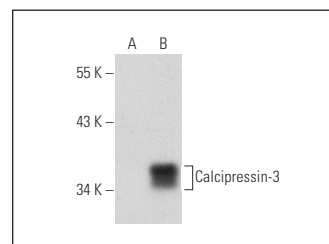
Molecular Weight of Calcipressin-3: 35 kDa.

Positive Controls: mouse heart extract: sc-2254 or Calcipressin-3 (h): 293T Lysate: sc-115421.

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



Calcipressin-3 (C-14): sc-79888. Western blot analysis of Calcipressin-3 expression in non-transfected: sc-117752 (A) and human Calcipressin-3 transfected: sc-115421 (B) 293T whole cell lysates.

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.