

Calcipressin-3 (E-15): sc-79889

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 syntenies 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. Mulero, M.C., et al. 2007. RCAN3, a novel calcineurin inhibitor that downregulates NFAT-dependent cytokine gene expression. *Biochim. Biophys. Acta* 1773: 330-341.
7. Zobel, C., et al. 2007. Mechanisms of Ca²⁺-dependent calcineurin activation in mechanical stretch-induced hypertrophy. *Cardiology* 107: 281-290.
8. Facchin, F., et al. 2008. Identification and analysis of human RCAN3 (DSCR1L2) mRNA and protein isoforms. *Gene* 407: 159-168.

CHROMOSOMAL LOCATION

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

SOURCE

Calcipressin-3 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-79889 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calcipressin-3 (E-15) 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), 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).

Calcipressin-3 (E-15) is also recommended for detection of Calcipressin-3 in additional species, including equine, canine, bovine, porcine and avian.

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.

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.



Try **Calcipressin-2/3 (B-9): sc-374454** or **Calcipressin-2/3 (F-7): sc-374453**, our highly recommended monoclonal alternatives to Calcipressin-3 (E-15).