

Calcipressin-3 (H-25): sc-130710

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. Mulero, M.C., et al. 2007. RCAN3, a novel calcineurin inhibitor that downregulates NFAT-dependent cytokine gene expression. *Biochim. Biophys. Acta* 1773: 330-341.

CHROMOSOMAL LOCATION

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

SOURCE

Calcipressin-3 (H-25) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of Calcipressin-3 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Calcipressin-3 (H-25) is recommended for detection of Calcipressin-3 of mouse 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)] 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.

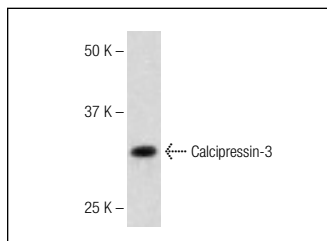
Molecular Weight of Calcipressin-3: 35 kDa.

Positive Controls: mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



Calcipressin-3 (H-25): sc-130710. Western blot analysis of Calcipressin-3 expression in mouse heart tissue extract.

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.

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Try **Calcipressin-2/3 (B-9): sc-374454** or **Calcipressin-2/3 (F-7): sc-374453**, our highly recommended monoclonal alternatives to Calcipressin-3 (H-25).