SANTA CRUZ BIOTECHNOLOGY, INC.

Calcyclin (E-20): sc-16137

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The Power to Question

BACKGROUND

Calcyclin, also known as Prolactin receptor-associated protein (PRA), growth factor-inducible protein 2A9, S-100 calcium-binding protein A6 (S-100A6) or MLN 4, is a homodimeric member of the S-100 calcium-binding protein family whose expression is upregulated in proliferating and differentiating cells. Calcyclin is inducible by growth factors and overexpressed in acute myeloid leukemias. It is expressed in a cell-specific manner in subpopulations of neurons and astrocytes and in epithelial cells and fibroblasts. Calcyclin is a specific target of S-100B protein *in vivo*. The binding of Calcyclin to S-100B is stabilized by S-100B-bound calcium and zinc. Calcyclin associates with both Annexin XI and CacyBP (calcyclin-binding protein). It functions to activate several processes along the calcium signal transduction pathway including the regulation of cell growth, proliferation, secretion and exocytosis.

CHROMOSOMAL LOCATION

Genetic locus: S100A6 (human) mapping to 1q21.3; S100a6 (mouse) mapping to 3 F1.

SOURCE

Calcyclin (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Calcyclin 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-16137 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Calcyclin (E-20) is recommended for detection of Calcyclin 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).

Calcyclin (E-20) is also recommended for detection of Calcyclin in additional species, including porcine and avian.

Suitable for use as control antibody for Calcyclin siRNA (h): sc-43655, Calcyclin siRNA (m): sc-60053, Calcyclin shRNA Plasmid (h): sc-43655-SH, Calcyclin shRNA Plasmid (m): sc-60053-SH, Calcyclin shRNA (h) Lentiviral Particles: sc-43655-V and Calcyclin shRNA (m) Lentiviral Particles: sc-60053-V.

Molecular Weight of Calcyclin: 11 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse lung extract: sc-2390 or human lung extract: sc-363767.

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.

SELECT PRODUCT CITATIONS

1. Ka, S.M., et al. 2006. Glomerular crescent-related biomarkers in a murine model of chronic graft versus host disease. Nephrol. Dial. Transplant. 21: 288-298.
2. Duval, D., et al. 2006. Apoptosis and differentiation commitment: novel insights revealed by gene profiling studies in mouse embryonic stem cells. Cell Death Differ. 13: 564-575.
3. Zietarska, M., et al. 2007. Molecular description of a 3D *in vitro* model for the study of epithelial ovarian cancer (EOC). Mol. Carcinog. 46: 872-885.
4. Lee, M.H., et al. 2008. Identification of formaldehyde-responsive genes by suppression subtractive hybridization. Toxicology 243: 224-235.

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.