

Calcyclin (7D11A8): sc-53950

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 (7D11A8) is a mouse monoclonal antibody raised against purified truncated recombinant Calcyclin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Calcyclin (7D11A8) is available conjugated to agarose (sc-53950 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53950 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53950 PE), fluorescein (sc-53950 FITC), Alexa Fluor® 488 (sc-53950 AF488), Alexa Fluor® 546 (sc-53950 AF546), Alexa Fluor® 594 (sc-53950 AF594) or Alexa Fluor® 647 (sc-53950 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53950 AF680) or Alexa Fluor® 790 (sc-53950 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Calcyclin (7D11A8) 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), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

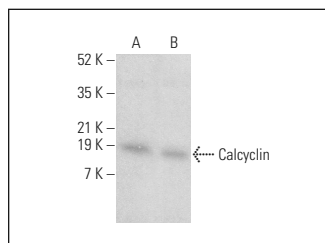
Molecular Weight of Calcyclin: 11 kDa.

Positive Controls: human lung extract: sc-363767, MH-S whole cell lysate: sc-364785 or RAW 264.7 whole cell lysate: sc-2211.

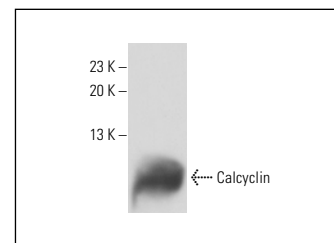
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BPHRP: sc-516140 or m-IgGκ BPHRP: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BPHRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Calcyclin (7D11A8): sc-53950. Western blot analysis of Calcyclin expression in MH-S (A) and RAW 264.7 (B) whole cell lysates.



Calcyclin (7D11A8): sc-53950. Western blot analysis of Calcyclin expression in human lung tissue extract.

SELECT PRODUCT CITATIONS

- Niu, D., et al. 2009. ITRAQ-coupled 2-D LC-MS/MS analysis of protein profile associated with HBV-modulated DNA methylation. *Proteomics* 9: 3856-3868.
- Zhang, H., et al. 2011. Adipocytes derived from human bone marrow mesenchymal stem cells exert inhibitory effects on osteoblastogenesis. *Curr. Mol. Med.* 11: 489-502.
- Duan, L., et al. 2014. S100A6 stimulates proliferation and migration of colorectal carcinoma cells through activation of the MAPK pathways. *Int. J. Oncol.* 44: 781-790.
- Zhang, H.L., et al. 2018. Identification of differentially expressed proteins in the gastric mucosal atypical hyperplasia tissue microenvironment. *Oncol. Lett.* 16: 2355-2365.

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 for detailed protocols and support products.