

calcyclin (A-12): sc-22924

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.

REFERENCES

1. Calabretta, B., et al. 1986. Molecular cloning of the cDNA for a growth factor-inducible gene with strong homology to S-100, a calcium-binding protein. *J. Biol. Chem.* 261: 12628-12632.
2. Gabius, H.J., et al. 1989. Identification of a cell cycle-dependent gene product as a sialic acid-binding protein. *Biochem. Biophys. Res. Commun.* 163: 506-512.
3. Yamashita, N., et al. 1999. Distribution of a specific calcium-binding protein of the S100 protein family, S100A6 (calcyclin), in subpopulations of neurons and glial cells of the adult rat nervous system. *J. Comp. Neurol.* 404: 235-257.
4. Komatsu, K., et al. 2000. Increased expression of S100A6 (calcyclin), a calcium-binding protein of the S100 family, in human colorectal adenocarcinomas. *Clin. Cancer Res.* 6: 172-177.
5. Hoyaux, D., et al. 2000. S100A6, a calcium- and zinc-binding protein, is overexpressed in SOD1 mutant mice, a model for amyotrophic lateral sclerosis. *Biochim. Biophys. Acta* 1498: 264-272.
6. Nowotny, M., et al. 2000. Characterization of the interaction of calcyclin (S100A6) and calcyclin-binding protein. *J. Biol. Chem.* 275: 31178-31182.
7. Lesniak, W., et al. 2000. Regulation of cell specific expression of calcyclin (S100A6) in nerve cells and other tissues. *Acta Neurobiol. Exp.* 60: 569-575.
8. Deloulme, J.C., et al. 2000. S100A6 and S100A11 are specific targets of the calcium- and zinc-binding S100B protein *in vivo*. *J. Biol. Chem.* 275: 35302-35310.
9. Jorgensen, C.S., et al. 2000. Determination of autoantibodies to annexin XI in systemic autoimmune diseases. *Lupus* 9: 515-520.

SOURCE

calcyclin (A-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of calcyclin of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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-22924 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

calcyclin (A-12) 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).

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **Calcyclin (F-1): sc-271396** or **Calcyclin (7D11A8): sc-53950**, our highly recommended monoclonal alternatives to Calcyclin (A-12).