

CALML5 (1G2): sc-134294

BACKGROUND

The level of intracellular calcium is tightly regulated in all eukaryotic cells. A modest increase in this level can result in a myriad of physiological responses, most of which are mediated by calmodulin (CaM), the universal calcium sensor. CaM directly modulates the activity of protein kinases and phosphatases, ion channels and nitric oxide synthetases. CaM is generally involved in such diverse processes as cell proliferation, endocytosis, cellular adhesion, protein turnover and smooth muscle contraction. CALML5 (calmodulin-like 5), also known as CLSP, is a 146 amino acid protein that contains 4 EF-hand domains and shares functional similarity with CaM. Related to the calmodulin family of calcium binding proteins, CALML5 is a novel calcium binding protein expressed in the epidermis. CALML5 interacts with TGase3 and may be involved in terminal differentiation of keratinocytes.

REFERENCES

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2. Rhyner, J.A., Koller, M., Durussel-Gerber, I., Cox, J.A. and Strehler, E.E. 1992. Characterization of the human calmodulin-like protein expressed in *Escherichia coli*. *Biochemistry* 31: 12826-12832.
3. Mehul, B., Bernard, D. and Schmidt, R. 2001. Calmodulin-like skin protein: a new marker of keratinocyte differentiation. *J. Invest. Dermatol.* 116: 905-909.
4. Rogers, M.S., Kobayashi, T., Pittelkow, M.R. and Strehler, E.E. 2001. Human calmodulin-like protein is an epithelial-specific protein regulated during keratinocyte differentiation. *Exp. Cell Res.* 267: 216-224.
5. Durussel, I., Mehul, B., Bernard, D., Schmidt, R. and Cox, J.A. 2002. Cation- and peptide-binding properties of human calmodulin-like skin protein. *Biochemistry*. 41: 5439-5448.
6. Mehul, B., Bernard, D., Brouard, M., Delattre, C. and Schmidt, R. 2006. Influence of calcium on the proteolytic degradation of the calmodulin-like skin protein (calmodulin-like protein 5) in psoriatic epidermis. *Exp. Dermatol.* 15: 469-477.
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CHROMOSOMAL LOCATION

Genetic locus: CALML5 (human) mapping to 10p15.1.

SOURCE

CALML5 (1G2) is a mouse monoclonal antibody raised against recombinant CALML5 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CALML5 (1G2) is recommended for detection of CALML5 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

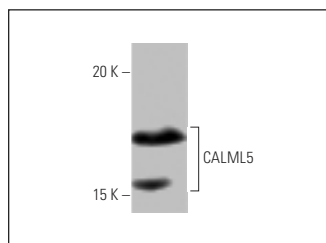
Suitable for use as control antibody for CALML5 siRNA (h): sc-72779, CALML5 shRNA Plasmid (h): sc-72779-SH and CALML5 shRNA (h) Lentiviral Particles: sc-72779-V.

Molecular Weight of CALML5: 16 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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).

DATA



CALML5 (1G2): sc-134294. Western blot analysis of CALML5 expression in transfected 293T whole cell lysate.

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.