

CALML5 (h2): 293T Lysate: sc-375033

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 four 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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3. Méhul, 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., Méhul, 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. Méhul, 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.

PRODUCT

CALML5 (h2): 293T Lysate represents a lysate of human CALML5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CALML5 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CALML5 antibodies. Recommended use: 10-20 µl per lane.

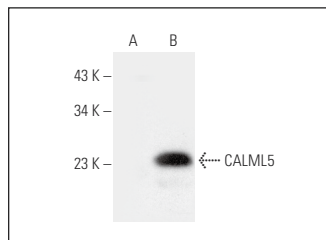
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CALML5 (A-3): sc-393637 is recommended as a positive control antibody for Western Blot analysis of enhanced human CALML5 expression in CALML5 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



CALML5 (A-3): sc-393637. Western blot analysis of CALML5 expression in non-transfected: sc-117752 (A) and human CALML5 transfected: sc-375033 (B) 293T whole cell lysates.

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.