

CALM (C-18): sc-6433

BACKGROUND

Clathrin-coated pits and vesicles are assembled for receptor-mediated endocytosis through interaction with clathrin associated protein complexes. Vesicle transport is mediated from the *trans*-Golgi network by the adapter complex AP-1 and from the plasma membrane by the AP-2 complex. The AP-1 and AP-2 adapter protein complexes consist of clathrin binding adaptin proteins (γ and β 1 for AP-1, α and β 2 for AP-2) and two smaller subunits known as AP50 and AP17. The α and β adaptin chains have a similar two-domain organization with C-terminal domains that vary in both sequence and length. α -Adaptin splice variants A and C display variable relative expression levels and differential distribution in different tissues. AP180 (also designated AP-3 or F1-20) is a synapse-specific clathrin assembly protein. The protein CALM (clathrin assembly protein lymphoid myeloid leukemia) is highly homologous to AP180 and may also be involved in clathrin assembly.

CHROMOSOMAL LOCATION

Genetic locus: PICALM (human) mapping to 11q14.2; Picalm (mouse) mapping to 7 E1.

SOURCE

CALM (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CALM of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6433 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CALM (C-18) is recommended for detection of CALM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

CALM (C-18) is also recommended for detection of CALM in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CALM siRNA (h): sc-29882, CALM siRNA (m): sc-29883, CALM shRNA Plasmid (h): sc-29882-SH, CALM shRNA Plasmid (m): sc-29883-SH, CALM shRNA (h) Lentiviral Particles: sc-29882-V and CALM shRNA (m) Lentiviral Particles: sc-29883-V.

Molecular Weight of CALM: 62-72 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

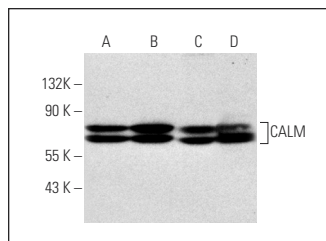
STORAGE

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

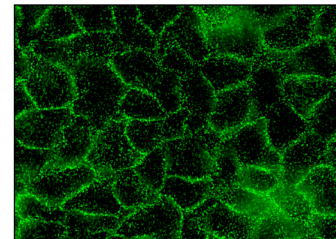
RESEARCH USE

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

DATA



CALM (C-18): sc-6433. Western blot analysis of CALM expression in A-431 (A), HeLa (B), Jurkat (C) and HL-60 (D) whole cell lysates.



CALM (C-18): sc-6433. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic vesicles localization.

SELECT PRODUCT CITATIONS

- Vecchi, M., et al. 2001. Nucleocytoplasmic shuttling of endocytic proteins. *J. Cell Biol.* 153: 1511-1517.
- Hinrichsen, L., et al. 2006. Bending a membrane: How clathrin affects budding. *Proc. Natl. Acad. Sci. USA* 103: 8715-8720.
- Petralia, R.S., et al. 2007. AP180 and CALM in the developing hippocampus: expression at the nascent synapse and localization to trafficking organelles. *J. Comp. Neurol.* 504: 314-327.
- Bushlin, I., et al. 2008. Clathrin assembly protein AP180 and CALM differentially control axogenesis and dendrite outgrowth in embryonic hippocampal neurons. *J. Neurosci.* 28: 10257-10271.
- Imelli, N., et al. 2009. Genetic reconstitution of the human adenovirus type 2 temperature-sensitive 1 mutant defective in endosomal escape. *Virology* 6: 174.
- Schwartz, C.M., et al. 2010. Clathrin assembly proteins AP180 and CALM in the embryonic rat brain. *J. Comp. Neurol.* 518: 3803-3818.
- Baig, S., et al. 2010. Distribution and expression of picalm in Alzheimer disease. *J. Neuropathol. Exp. Neurol.* 69: 1071-1077.
- Gautier, J.J., et al. 2011. Clathrin is required for Scar/Wave-mediated lamellipodium formation. *J. Cell Sci.* 124: 3414-3427.
- Antrobus, R. et al. 2011. Improved elution conditions for native co-immunoprecipitation. *PLoS ONE* 6: e18218.
- Deshpande, A.J., et al. 2011. The clathrin-binding domain of CALM and the OM-LZ domain of AF10 are sufficient to induce acute myeloid leukemia in mice. *Leukemia* 25: 1718-17127.

MONOS
Satisfaction
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Try **CALM (A-2): sc-271224** or **CALM (D-8): sc-166522**, our highly recommended monoclonal alternatives to CALM (C-18).