CALM (h): 293T Lysate: sc-111583



The Power to Question

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.

REFERENCES

- 1. Kirchhausen, T., Nathanson, K.L., Matsui, W., Vaisberg, A., Chow, E.P., Burne, C., Keen, J.H. and Davis, A.E. 1989. Structural and functional division into two domains of the large (100 to 115 kDa) chains of the clathrin-associated protein complex AP-2. Proc. Natl. Acad. Sci. USA 86: 2612-2616.
- 2. Robinson, M.S. 1989. Cloning of cDNAs encoding two related 100 kD coated vesicle proteins (α -Adaptins). J. Cell Biol. 108: 833-842.
- Robinson, M.S. 1990. Cloning and expression of γ-Adaptin, a component of clathrin-coated vesicles associated with the Golgi apparatus. J. Cell Biol. 111: 2319-2326.
- Ponnambalam, S., Robinson, M.S., Jackson, A.P., Peiperl, L. and Parham, P. 1990. Conservation and diversity in families of coated vesicle adaptins. J. Biol. Chem. 265: 4814-4820.
- Morris, S.A., Schroder, S., Plessmann, U., Weber, K. and Ungewickell, E. 1993. Clathrin assembly protein AP180: primary structure, domain organization and identification of a clathrin binding site. EMBO J. 12: 667-675.
- 6. Ball, C.L., Hunt, S.P. and Robinson, M.S. 1995. Expression and localization of α -adaptin isoforms. J. Cell Sci. 108: 2865-2875.
- 7. Mellman, I. 1996. Endocytosis and molecular sorting. Annu. Rev. Cell Dev. Biol. 12: 575-625.
- Dreyling, M.H., Martinez-Climent, J.A., Zheng, M., Mao, J., Rowley, J.D. and Bohlander, S.K. 1996. The t(10;11) (p13;q14) in the U937 cell line results in the fusion of the AF10 gene and CALM, encoding a new member of the AP-3 clathrin assembly protein family. Proc. Natl. Acad. Sci. USA 93: 4804-4809.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: PICALM (human) mapping to 11q14.2.

PRODUCT

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

APPLICATIONS

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

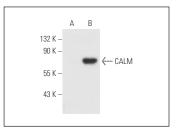
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CALM (D-8): sc-166522 is recommended as a positive control antibody for Western Blot analysis of enhanced human CALM expression in CALM 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-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CALM (D-8): sc-166522. Western blot analysis of CALM expression in non-transfected: sc-117752 (A) and human CALM transfected: sc-111583 (B) 293T whole cell Ivsates.

RESEARCH USE

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