

CHMP3 (m): 293T Lysate: sc-119240

BACKGROUND

The charged multivesicular body proteins, commonly designated CHMPs, belong to the vacuolar sorting protein family and function as chromatin-modifying proteins. CHMP1–6 are all components of ESCRT (endosomal sorting complex required for transport) I, II or III complexes. These complexes are crucial for sorting endosomal articles into multivesicular bodies (MVBs), as well as required for the formation of these bodies. CHMP3, also known as Vps24, associates directly with CHMP2 and CHMP4 for the disassembly of ESCRT-III complex in an ATP-dependent manner. During HIV-1 infection, the virus uses the ESCRT-III complex to mediate budding and exocytosis of viral proteins. Overexpression of CHMP3 strongly inhibits HIV-1 release. CHMP3 is expressed in brain, skeletal muscle, heart, lung, kidney and liver.

REFERENCES

1. von Schwedler, U.K., Stuchell, M., Müller, B., Ward, D.M., Chung, H.Y., Morita, E., Wang, H.E., Davis, T., He, G.P., Cimbara, D.M., Scott, A., Kräusslich, H.G., Kaplan, J., Morham, S.G. and Sundquist, W.I. 2003. The protein network of HIV budding. *Cell* 114: 701-713.
2. Agromayor, M. and Martin-Serrano, J. 2006. Interaction of AMSH with ESCRT-III and deubiquitination of endosomal cargo. *J. Biol. Chem.* 281: 23083-23091.
3. Muziol, T., Pineda-Molina, E., Ravelli, R.B., Zamborlini, A., Usami, Y., Gottlinger, H. and Weissenhorn, W. 2006. Structural basis for budding by the ESCRT-III factor CHMP3. *Dev. Cell* 10: 821-830.
4. Bache, K.G., Stuffers, S., Malerod, L., Slagvsold, T., Raiborg, C., Lechardeur, D., Walchli, S., Lukacs, G.L., Brech, A. and Stenmark, H. 2006. The ESCRT-III subunit hVps24 is required for degradation but not silencing of the epidermal growth factor receptor. *Mol. Biol. Cell* 17: 2513-2523.

CHROMOSOMAL LOCATION

Genetic locus: Vps24 (mouse) mapping to 6 C1.

PRODUCT

CHMP3 (m): 293T Lysate represents a lysate of mouse CHMP3 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

CHMP3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CHMP3 antibodies. Recommended use: 10-20 µl per lane.

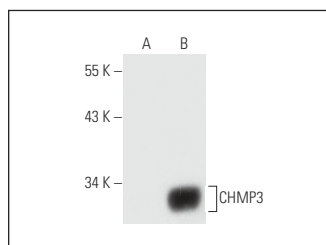
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CHMP3 (C-6): sc-271501 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CHMP3 expression in CHMP3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

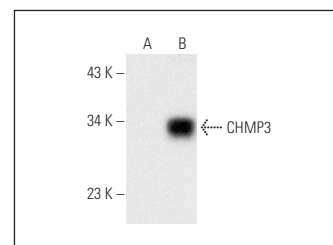
RECOMMENDED SUPPORT REAGENTS

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



CHMP3 (C-6): sc-271501. Western blot analysis of CHMP3 expression in non-transfected: sc-117752 (A) and mouse CHMP3 transfected: sc-119240 (B) 293T whole cell lysates.



CHMP3 (A-7): sc-393817. Western blot analysis of CHMP3 expression in non-transfected: sc-117752 (A) and mouse CHMP3 transfected: sc-119240 (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.