SANTA CRUZ BIOTECHNOLOGY, INC.

CHMP1A (m): 293T Lysate: sc-119235

BACKGROUND

The charged multivesicular body proteins or chromatin modifying 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. CHMP1 interacts with VPS4B and localizes to early endosomes. Two isoforms, encoded by distinct genes, exists for CHMP1. They are designated CHMP1A and CHMP1B. CHMP1 overexpression can lead to the dilation of endosomal compartments resulting in the disruption of normal distribution of endosomal markers.

REFERENCES

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2. Howard, T.L., Stauffer, D.R., Degnin, C.R. and Hollenberg, S.M. 2001. CHMP1 functions as a member of a newly defined family of vesicle trafficking proteins. J. Cell Sci. 114: 2395-2404.
3. Yang, K.S., Jin, U.H., Kim, J., Song, K., Kim, S.J., Hwang, I., Lim, Y.P. and Pai, H.S. 2004. Molecular characterization of NbCHMP1 encoding a homolog of human CHMP1 in *Nicotiana benthamiana*. Mol. Cells 17: 255-261.
4. Reid, E., Connell, J., Edwards, T.L., Duley, S., Brown, S.E. and Sanderson, C.M. 2004. The hereditary spastic paraplegia protein Spastin interacts with the ESCRT-III complex-associated endosomal protein CHMP1B. Hum. Mol. Genet. 14: 19-38.
5. Horii, M., Shibata, H., Kobayashi, R., Katoh, K., Yorikawa, C., Yasuda, J. and Maki, M. 2006. CHMP7, a novel ESCRT-III-related protein, associates with CHMP4b and functions in the endosomal sorting pathway. Biochem. J. 400: 23-32.

CHROMOSOMAL LOCATION

Genetic locus: Chmp1a (mouse) mapping to 8 E1.

PRODUCT

CHMP1A (m): 293T Lysate represents a lysate of mouse CHMP1A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CHMP1A (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CHMP1A antibodies. Recommended use: 10-20 µl per lane.

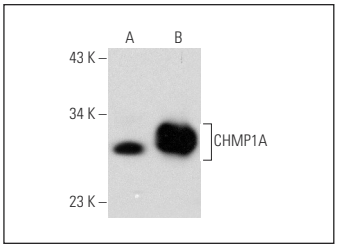
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CHMP1A (B-5): sc-271617 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CHMP1A expression in CHMP1A 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



CHMP1A (B-5): sc-271617. Western blot analysis of CHMP1A expression in non-transfected: sc-117752 (**A**) and mouse CHMP1A transfected: sc-119235 (**B**) 293T whole cell lysates.

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.

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.