

CHMP4A (h): 293T Lysate: sc-372546

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) and are required for the formation of these bodies. During HIV-1 infection, the virus uses the ESCRT-III complex to mediate budding and exocytosis of viral proteins via the association of CHMP4 and a protein recruited by HIV-1 p6, called PDCD61P, which is present in viral $G_{\alpha\gamma}$ assembly and budding. CHMP4 is strongly expressed in kidney, liver, heart and skeletal muscle and to a lesser degree in lung, brain and pancreas. Three CHMP4 isoforms, encoded by distinct genes, are designated CHMP4A, CHMP4B and CHMP4C.

REFERENCES

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2. Katoh, K., Shibata, H., Hatta, K. and Maki, M. 2004. CHMP4b is a major binding partner of the ALG-2-interacting protein Alix among the three CHMP4 isoforms. *Arch. Biochem. Biophys.* 421: 159-165.
3. Katoh, K., Suzuki, H., Terasawa, Y., Mizuno, T., Yasuda, J., Shibata, H. and Maki, M. 2005. The penta-EF-hand protein ALG-2 interacts directly with the ESCRT-I component TSG101, and Ca^{2+} -dependently co-localizes to aberrant endosomes with dominant-negative AAA ATPase SKD1/Vps4B. *Biochem. J.* 391: 677-685.
4. 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: CHMP4A (human) mapping to 14q12.

PRODUCT

CHMP4A (h): 293T Lysate represents a lysate of human CHMP4A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CHMP4A (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CHMP4A antibodies. Recommended use: 10-20 µl per lane.

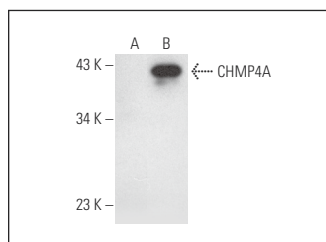
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CHMP4A (E-6): sc-514869 is recommended as a positive control antibody for Western Blot analysis of enhanced human CHMP4A expression in CHMP4A 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



CHMP4A (E-6): sc-514869. Western blot analysis of CHMP4A expression in non-transfected: sc-117752 (A) and human CHMP4A transfected: sc-372546 (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.