

CHMP1A (FL-196): sc-67205

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. CHMP1 interacts with SKD1 and localizes to early endosomes. CHMP1 overexpression can lead to the dilation of endosomal compartments resulting in the disruption of normal distribution of endosomal markers.

REFERENCES

1. Stauffer, D.R., et al. 2001. CHMP1 is a novel nuclear matrix protein affecting chromatin structure and cell-cycle progression. *J. Cell Sci.* 114: 2383-2393.
2. Howard, T.L., et al. 2001. CHMP1 functions as a member of a newly defined family of vesicle trafficking proteins. *J. Cell Sci.* 114: 2395-2404.
3. Reid, E., et al. 2004. The hereditary spastic paraplegia protein spastin interacts with the ESCRT-III complex-associated endosomal protein CHMP1B. *Hum. Mol. Genet.* 14: 19-38.
4. Yang, K.S., et al. 2004. Molecular characterization of NbCHMP1 encoding a homolog of human CHMP1 in *Nicotiana benthamiana*. *Mol. Cells* 17: 255-261.

CHROMOSOMAL LOCATION

Genetic locus: CHMP1A (human) mapping to 16q24.3, CHMP1B (human) mapping to 18p11.21; Chmp1a (mouse) mapping to 8 E1, Chmp1b (mouse) mapping to 18 E1.

SOURCE

CHMP1A (FL-196) is a rabbit polyclonal antibody raised against amino acids 1-196 representing full length CHMP1A of human origin.

PRODUCT

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

APPLICATIONS

CHMP1A (FL-196) is recommended for detection of CHMP1A and, to a lesser extent, CHMP1B of human, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CHMP1A (FL-196) is also recommended for detection of CHMP1A and CHMP1B in additional species, including canine, bovine, porcine and avian.

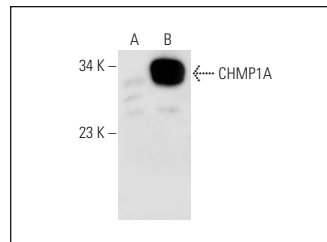
Molecular Weight of CHMP1A: 35 kDa.

Positive Controls: CHMP1A (m): 293T Lysate: sc-119235.

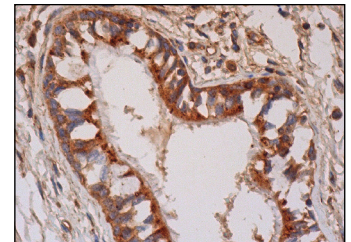
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CHMP1A (FL-196): sc-67205. Western blot analysis of CHMP1A expression in non-transfected: sc-117752 (A) and mouse CHMP1A transfected: sc-119235 (B) 293T whole cell lysates.



CHMP1A (FL-196): sc-67205. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Lutz, D., et al. 2013. Generation and nuclear translocation of sumoylated transmembrane fragment of cell adhesion molecule L1. *J. Biol. Chem.* 287: 17161-17175.
2. Skogberg, G., et al. 2015. Human thymic epithelial primary cells produce exosomes carrying tissue-restricted antigens. *Immunol. Cell Biol.* 93: 727-734.

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.


 MONOS
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Try **CHMP1A (B-5): sc-271617** or **CHMP1B (D-10): sc-514013**, our highly recommended monoclonal alternatives to CHMP1A (FL-196).