

# CHMP7 (C-19): sc-66206

## 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. CHMP7 is an ESCRT-III-related protein that associates with CHMP4B. CHMP7 contains an SNF7 domain in the C-terminus and is most similar to CHMP6. CHMP7 also binds to the microtubule interacting and transport (MIT) domain of the deubiquitinating enzyme, UBPY. The overexpression of CHMP7 inhibits EGFR degradation.

## REFERENCES

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2. Howard, T.L., Stauffer, D.R., Degrin, 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 (Pt. 13): 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: CHMP7 (human) mapping to 8p21.3; Chmp7 (mouse) mapping to 14 D2.

## SOURCE

CHMP7 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CHMP7 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.

Blocking peptide available for competition studies, sc-66206 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CHMP7 (C-19) is recommended for detection of CHMP7 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CHMP7 (C-19) is also recommended for detection of CHMP7 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CHMP7 siRNA (h): sc-62106, CHMP7 siRNA (m): sc-62107, CHMP7 shRNA Plasmid (h): sc-62106-SH, CHMP7 shRNA Plasmid (m): sc-62107-SH, CHMP7 shRNA (h) Lentiviral Particles: sc-62106-V and CHMP7 shRNA (m) Lentiviral Particles: sc-62107-V.

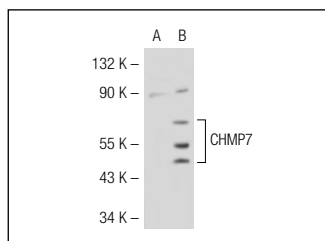
Molecular Weight of CHMP7: 51 kDa.

Positive Controls: CHMP7 (m2): 293T Lysate: sc-119242.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CHMP7 (C-19): sc-66206. Western blot analysis of CHMP7 expression in non-transfected: sc-117752 (A) and mouse CHMP7 transfected: sc-119242 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **CHMP7 (F-8): sc-271805**, our highly recommended monoclonal alternative to CHMP7 (C-19).