SANTA CRUZ BIOTECHNOLOGY, INC.

CHMP7 (E-16): sc-66207

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The Power to Question

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

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.

CHROMOSOMAL LOCATION

Genetic locus: CHMP7 (human) mapping to 8p21.3; Chmp7 (mouse) mapping to 14 D2.

SOURCE

CHMP7 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-66207 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CHMP7 (E-16) 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 (E-16) is also recommended for detection of CHMP7 in additional species, including equine, canine, bovine and avian.

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.

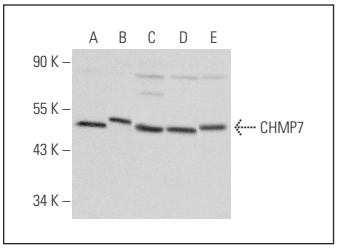
Molecular Weight of CHMP7: 51 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, KNRK whole cell lysate: sc-2214 or HEK293 whole cell lysate: sc-45136.

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 (E-16): sc-66207. Western blot analysis of CHMP7 expression in RAW 264.7 (**A**), KNRK (**B**), HEK293 (**C**), RT-4 (**D**) and U-251-MG (**E**) whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.