

CHMP2B (H-107): sc-98550

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), and are also required for the formation of these bodies. CHMP2B, also known as CHMP2.5 or vacuolar protein-sorting-associated protein 2-2, is a 213 amino acid cytosolic protein. Widely expressed in brain, heart, skeletal muscle, small intestine, pancreas, lung, placenta and leukocytes, CHMP2B associates directly with CHMP2A and Vps4 for the disassembly of the ESCRT-III complex. Defects in the gene encoding CHMP2B have been shown to cause chromosome 3-linked frontotemporal dementia (FTD3).

REFERENCES

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- Talbot, K., et al. 2006. Recent advances in the genetics of amyotrophic lateral sclerosis and frontotemporal dementia: common pathways in neurodegenerative disease. *Hum. Mol. Genet.* 2: R182-R187.
- Momeni, P., et al. 2006. Genetic variability in CHMP2B and frontotemporal dementia. *Neurodegener Dis.* 3: 129-133.
- Parkinson, N., et al. 2006. ALS phenotypes with mutations in CHMP2B (charged multivesicular body protein 2B). *Neurology* 67: 1074-1077.
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- Momeni, P., et al. 2006. Sequence analysis of all identified open reading frames on the frontal temporal dementia haplotype on chromosome 3 fails to identify unique coding variants except in CHMP2B. *Neurosci. Lett.* 410: 77-79.
- Schumacher, A., et al. 2007. No association of chromatin-modifying protein 2B with sporadic frontotemporal dementia. *Neurobiol. Aging* 28: 1789-1790.

CHROMOSOMAL LOCATION

Genetic locus: CHMP2B (human) mapping to 3p11.2; Chmp2b (mouse) mapping to 16 C1.3.

SOURCE

CHMP2B (H-107) is a rabbit polyclonal antibody raised against amino acids 50-156 mapping within an internal region of CHMP2B 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.

RESEARCH USE

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

APPLICATIONS

CHMP2B (H-107) is recommended for detection of CHMP2B 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).

CHMP2B (H-107) is also recommended for detection of CHMP2B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CHMP2B siRNA (h): sc-72895, CHMP2B siRNA (m): sc-72896, CHMP2B shRNA Plasmid (h): sc-72895-SH, CHMP2B shRNA Plasmid (m): sc-72896-SH, CHMP2B shRNA (h) Lentiviral Particles: sc-72895-V and CHMP2B shRNA (m) Lentiviral Particles: sc-72896-V.

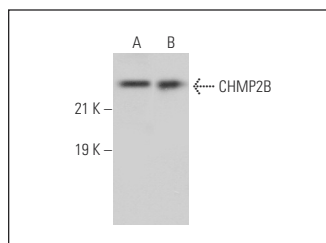
Molecular Weight of CHMP2B: 24 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or JAR cell lysate: sc-2276.

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.

DATA



CHMP2B (H-107): sc-98550. Western blot analysis of CHMP2B expression in JAR (A) and Hep G2 (B) 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.

PROTOCOLS

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