

CHMP4C (Q-16): sc-82561

BACKGROUND

CHMP4C (chromatin modifying protein 4C), also known as Shax3 or SNF7-3, is a 233 amino acid protein that localizes to the cytoplasm and belongs to the chromatin-modifying protein/charged multivesicular body protein (CHMP). Members of the CHMP family, including CHMP4C, function as components of the ESCRT-III (endosomal sorting complex required for transport III) complex, which is involved in the formation of endocytic multivesicular bodies (MVBs) and in the degradation of surface receptor proteins. Expressed in kidney, heart and spleen, CHMP4C, as part of the ESCRT-III complex, plays a role in the delivery of transmembrane proteins into the lumen of the lysosome for degradation and may also be involved in HIV-1 infection, as the ESCRT-III complex serves as a budding site for viral proteins.

REFERENCES

1. Strack, B., et al. 2003. AIP1/ALIX is a binding partner for HIV-1 p6 and EIAV p9 functioning in virus budding. *Cell* 114: 689-699.
2. von Schwedler, U.K., et al. 2003. The protein network of HIV budding. *Cell* 114: 701-713.
3. Katoh, K., et al. 2003. The ALG-2-interacting protein Alix associates with CHMP4b, a human homologue of yeast Snf7 that is involved in multivesicular body sorting. *J. Biol. Chem.* 278: 39104-39113.
4. Katoh, K., et al. 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.
5. Peck, J.W., et al. 2004. Structure and function of human Vps20 and Snf7 proteins. *Biochem. J.* 377: 693-700.
6. Tsang, H.T., et al. 2006. A systematic analysis of human CHMP protein interactions: additional MIT domain-containing proteins bind to multiple components of the human ESCRT III complex. *Genomics* 88: 333-346.

CHROMOSOMAL LOCATION

Genetic locus: CHMP4C (human) mapping to 8q21.13; Chmp4c (mouse) mapping to 3 A1.

SOURCE

CHMP4C (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CHMP4C 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-82561 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

CHMP4C (Q-16) is recommended for detection of CHMP4C 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), 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); non cross-reactive with other CHMP family members.

Suitable for use as control antibody for CHMP4C siRNA (h): sc-72899, CHMP4C siRNA (m): sc-72900, CHMP4C shRNA Plasmid (h): sc-72899-SH, CHMP4C shRNA Plasmid (m): sc-72900-SH, CHMP4C shRNA (h) Lentiviral Particles: sc-72899-V and CHMP4C shRNA (m) Lentiviral Particles: sc-72900-V.

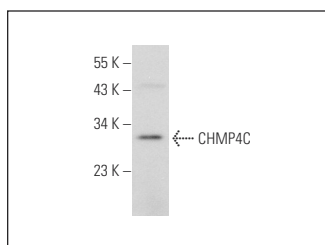
Molecular Weight of CHMP4C: 26 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

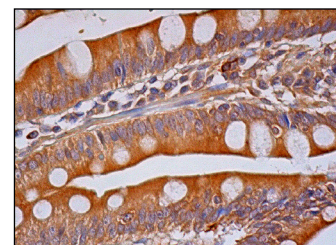
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CHMP4C (Q-16): sc-82561. Western blot analysis of CHMP4C expression in KNRK whole cell lysate.



CHMP4C (Q-16): sc-82561. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

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.