

CHMP5 (H-90): sc-67230



The Power to Question

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 required for the formation of these bodies. During HIV-1 infection, the virus uses the ESCRT-III complex to mediate budding and exocytosis of viral proteins. CHMP5 interacts directly with LIP5, a protein required for HIV release. Depletion of LIP5 will reduce HIV-1 budding, whereas depletion of CHMP5 will increase HIV-1 release. Subsequently, overexpression of CHMP5 will reduce HIV-1 budding. CHMP5 also regulates late endosomal development downstream of MVB formation and a loss of CHMP5 will result in increased signal transduction due to a decrease in lysosomal degradation function.

CHROMOSOMAL LOCATION

Genetic locus: CHMP5 (human) mapping to 9p13.3; Chmp5 (mouse) mapping to 4 A5.

SOURCE

CHMP5 (H-90) is a rabbit polyclonal antibody raised against amino acids 130-219 of CHMP5 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.

STORAGE

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

APPLICATIONS

CHMP5 (H-90) is recommended for detection of CHMP5 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).

CHMP5 (H-90) is also recommended for detection of CHMP5 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for CHMP5 siRNA (h): sc-60374, CHMP5 siRNA (m): sc-60375, CHMP5 shRNA Plasmid (h): sc-60374-SH, CHMP5 shRNA Plasmid (m): sc-60375-SH, CHMP5 shRNA (h) Lentiviral Particles: sc-60374-V and CHMP5 shRNA (m) Lentiviral Particles: sc-60375-V.

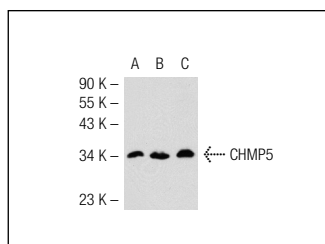
Molecular Weight of CHMP5: 32 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, SK-N-SH cell lysate: sc-2410 or K-562 whole cell lysate: sc-2203.

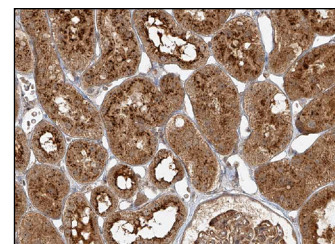
RECOMMENDED SECONDARY REAGENTS

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



CHMP5 (H-90): sc-67230. Western blot analysis of CHMP5 expression in HEL 92.1.7 (A), SK-N-SH (B) and K-562 (C) whole cell lysates



CHMP5 (H-90): sc-67230. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubules at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. De Domenico, I., et al. 2007. The molecular mechanism of hepcidin-mediated ferroportin down-regulation. *Mol. Biol. Cell* 18: 2569-2578.

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.

MONOS
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Guaranteed

Try **CHMP5 (F-7): sc-374338** or **CHMP5 (D-11): sc-374337**, our highly recommended monoclonal alternatives to CHMP5 (H-90).