

CHMP2A (H-105): sc-67227

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. CHMP2, also known as BC-2, associates directly with Vps4 for the disassembly of ESCRT-III complex in an ATP-dependant manner. During HIV-1 infection, the virus uses the ESCRT-III complex to mediate budding and exocytosis of viral proteins. Overexpression of CHMP2 strongly inhibits HIV-1 release.

REFERENCES

1. von Schwedler, U.K., Stuchell, M., Müller, B., Ward, D.M., Chung, H.Y., Morita, E., Wang, H.E., Davis, T., He, G.P., Cimbora, D.M., Scott, A., Kräusslich, H.G., Kaplan, J., Morham, S.G. and Sundquist, W.I. 2003. The protein network of HIV budding. *Cell* 114: 701-713.
2. Agromayor, M. and Martin-Serrano, J. 2006. Interaction of AMSH with ESCRT-III and deubiquitination of endosomal cargo. *J. Biol. Chem.* 281: 23083-23091.
3. Suo, Y.P., Wang, B.Y., Hong, Z., Yin, R.T., Wang, D.Q. and Peng, Z.L. 2006. Comparative study of that synergistic effect of cisplatin combined with compound herbal medicinal prescription for tonic quality and activating blood circulation is on SKOV3 cell proliferation and apoptosis. *Sichuan Da Xue Xue Bao Yi Xue Ban* 37: 542-546.

CHROMOSOMAL LOCATION

Genetic locus: CHMP2A (human) mapping to 19q13.43; Chmp2a (mouse) mapping to 7 A1.

SOURCE

CHMP2A (H-105) is a rabbit polyclonal antibody raised against amino acids 51-155 mapping near the N-terminus of CHMP2 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.

APPLICATIONS

CHMP2A (H-105) is recommended for detection of CHMP2 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).

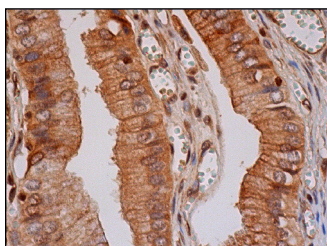
CHMP2A (H-105) is also recommended for detection of CHMP2 in additional species, including canine and bovine.

Molecular Weight of CHMP2A: 25 kDa.

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



CHMP2A (H-105): sc-67227. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells.

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.