

CHMP6 (B-3): sc-398963

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), as well as 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. CHMP6, also known as VPS20, interacts with CHMP4 of the ESCRT-III complex. CHMP6 also interacts with SNF8, VPS25 and VPS36 of the ESCRT-II complex, where it regulates cargo sorting by acting as an acceptor for ESCRT-II on endosome membranes.

CHROMOSOMAL LOCATION

Genetic locus: CHMP6 (human) mapping to 17q25.3; Chmp6 (mouse) mapping to 11 E2.

SOURCE

CHMP6 (B-3) is a mouse monoclonal antibody raised against amino acids 1-201 representing full length CHMP6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CHMP6 (B-3) is available conjugated to agarose (sc-398963 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398963 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398963 PE), fluorescein (sc-398963 FITC), Alexa Fluor® 488 (sc-398963 AF488), Alexa Fluor® 546 (sc-398963 AF546), Alexa Fluor® 594 (sc-398963 AF594) or Alexa Fluor® 647 (sc-398963 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398963 AF680) or Alexa Fluor® 790 (sc-398963 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

CHMP6 (B-3) is recommended for detection of CHMP6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CHMP6 siRNA (h): sc-60376, CHMP6 siRNA (m): sc-60377, CHMP6 shRNA Plasmid (h): sc-60376-SH, CHMP6 shRNA Plasmid (m): sc-60377-SH, CHMP6 shRNA (h) Lentiviral Particles: sc-60376-V and CHMP6 shRNA (m) Lentiviral Particles: sc-60377-V.

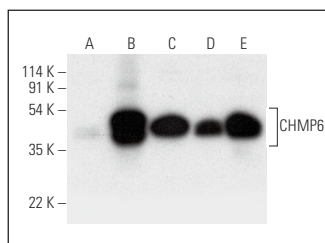
Molecular Weight of CHMP6: 23 kDa.

Positive Controls: CHMP6 (h): 293T Lysate: sc-371845, MCF7 whole cell lysate: sc-2206 or Hep G2 cell lysate: sc-2227.

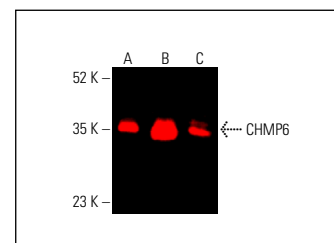
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CHMP6 (B-3): sc-398963. Western blot analysis of CHMP6 expression in non-transfected 293T: sc-117752 (A), human CHMP6 transfected 293T: sc-371845 (B), MCF7 (C), JEG-3 (D) and Hep G2 (E) whole cell lysates.



CHMP6 (B-3): sc-398963. Near-Infrared western blot analysis of CHMP6 expression in MCF7 (A), Hep G2 (B) and HeLa (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 790: sc-533666.

SELECT PRODUCT CITATIONS

- Kumar, B., et al. 2016. ESCRT-I protein Tsg101 plays a role in the post-macropinocytic trafficking and infection of endothelial cells by Kaposi's sarcoma-associated herpesvirus. *PLoS Pathog.* 12: e1005960.
- Kim, S.B., et al. 2017. Caspase-8 controls the secretion of inflammatory lysyl-tRNA synthetase in exosomes from cancer cells. *J. Cell Biol.* 216: 2201-2216.
- Dai, E., et al. 2020. ESCRT-III-dependent membrane repair blocks ferroptosis. *Biochem. Biophys. Res. Commun.* 522: 415-421.
- Dai, E., et al. 2020. AIFM2 blocks ferroptosis independent of ubiquinol metabolism. *Biochem. Biophys. Res. Commun.* 523: 966-971.
- Rodger, C., et al. 2020. *De novo* VPS4A mutations cause multisystem disease with abnormal neurodevelopment. *Am. J. Hum. Genet.* 107: 1129-1148.
- Feng, Z., et al. 2022. NMN recruits GSH to enhance GPX4-mediated ferroptosis defense in UV irradiation induced skin injury. *Biochim. Biophys. Acta Mol. Basis Dis.* 1868: 166287.

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.