

# CHMP5 (Y-19): sc-49920

## 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 a 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 (Y-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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.

Blocking peptide available for competition studies, sc-49920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

CHMP5 (Y-19) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CHMP5 (Y-19) is also recommended for detection of CHMP5 in additional species, including equine, 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.

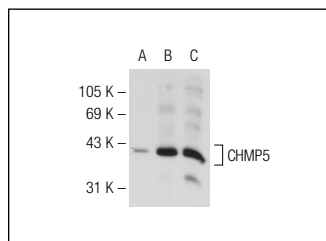
Molecular Weight of CHMP5: 32 kDa.

Positive Controls: CHMP5 (m): 293T Lysate: sc-125133, CHMP5 (h2): 293T Lysate: sc-173688 or K-562 whole cell lysate: sc-2203.

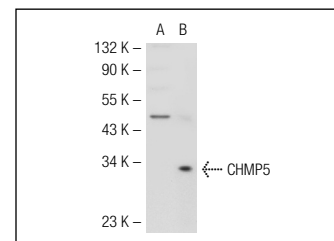
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use 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.

## DATA



CHMP5 (Y-19): sc-49920. Western blot analysis of CHMP5 expression in non-transfected 293T: sc-117752 (A), human CHMP5 transfected 293T: sc-173688 (B) and K-562 (C) whole cell lysates.



CHMP5 (Y-19): sc-49920. Western blot analysis of CHMP5 expression in non-transfected: sc-117752 (A) and mouse CHMP5 transfected: sc-125133 (B) 293T 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **CHMP5 (F-7): sc-374338** or **CHMP5 (D-11): sc-374337**, our highly recommended monoclonal alternatives to CHMP5 (Y-19).