SANTA CRUZ BIOTECHNOLOGY, INC.

LIP5 (H-300): sc-134670

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

LIP5 (LYST-interacting protein 5), also known as VTA1 (Vps20-associated 1 homolog), DRG1 (dopamine-responsive protein DRG-1), SBP1 (SKD1 binding protein 1) or My012, is a 307 amino acid protein belonging to the VTA1 family. LIP5 plays a role in sorting membrane proteins, including lysosomal enzymes, lipids and stimulated growth factor receptors, for lysosomal degradation in a pathway known as the endosomal multivesicular bodies (MVB) pathway. Found in brain, liver, heart and kidney, LIP5 localizes to cytoplasm and both endosomal and peripheral membranes. RNAi studies demonstrate that LIP5 depletion decreases human immunodeficiency virus type 1 (HIV-1) budding, and LIP5 is known to interact with CHMP1B, CHMP2A, CHMP5, VPS4B, KIAA0174 (IST1) and possibly CHMP3.

REFERENCES

1. Shi, J., Cai, W., Chen, X., Ying, K., Zhang, K. and Xie, Y. 2001. Identification of dopamine responsive mRNAs in glial cells by suppression subtractive hybridization. Brain Res. 910: 29-37.
2. Fujita, H., Umezuki, Y., Imamura, K., Ishikawa, D., Uchimura, S., Nara, A., Yoshimori, T., Hayashizaki, Y., Kawai, J., Ishidoh, K., Tanaka, Y. and Himeno, M. 2004. Mammalian class E Vps proteins, SBP1 and mVps2/CHMP2A, interact with and regulate the function of an AAA-ATPase SKD1/Vps4B. J. Cell Sci. 117: 2997-3009.
3. Ward, D.M., Vaughn, M.B., Shiflett, S.L., White, P.L., Pollock, A.L., Hill, J., Schnegelberger, R., Sundquist, W.I. and Kaplan, J. 2005. The role of LIP5 and CHMP5 in multivesicular body formation and HIV-1 budding in mammalian cells. J. Biol. Chem. 280: 10548-10555.
4. Welsch, S., Habermann, A., Jäger, S., Müller, B., Krijnse-Locker, J. and Kräusslich, H.G. 2006. Ultrastructural analysis of ESCRT proteins suggests a role for endosome-associated tubular-vesicular membranes in ESCRT function. Traffic 7: 1551-1566.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610902. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: VTA1 (human) mapping to 6q24.1.

SOURCE

LIP5 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of LIP5 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

LIP5 (H-300) is recommended for detection of LIP5 of 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).

LIP5 (H-300) is also recommended for detection of LIP5 in additional species, including equine and bovine.

Suitable for use as control antibody for LIP5 siRNA (h): sc-95648, LIP5 shRNA Plasmid (h): sc-95648-SH and LIP5 shRNA (h) Lentiviral Particles: sc-95648-V.

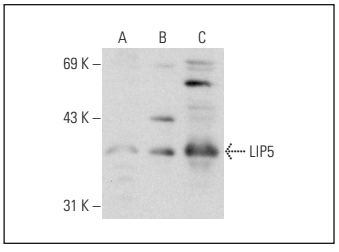
Molecular Weight of LIP5: 42 kDa.

Positive Controls: LIP5 (h): 293T Lysate: sc-173648, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

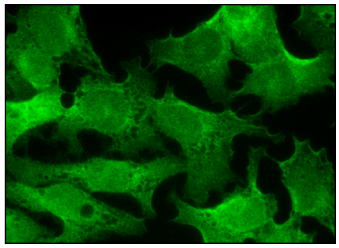
RECOMMENDED SECONDARY REAGENTS

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.

DATA



LIP5 (H-300): sc-134670. Western blot analysis of LIP5 expression in non-transfected 293T: sc-117752 (**A**), human LIP5 transfected 293T: sc-173648 (**B**) and Hep G2 (**C**) whole cell lysates.



LIP5 (H-300): sc-134670. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **LIP5 (D-6): sc-374012** or **LIP5 (C-1): sc-374013**, our highly recommended monoclonal alternatives to LIP5 (H-300).