

# Unc18-3 (H-96): sc-28930

## BACKGROUND

Unc18-1, 2, and 3 (syntaxin binding proteins 1-3, STXBP1-3, UNC18-a-c, MUNC18-1-3) are chaperone molecules that block syntaxin interactions with cognate SNARE (soluble NSF attachment protein (SNAP) receptor) proteins and regulate exocytosis. Unc18-1-3 mRNA is present in RBL-2H3 mast cells, mouse bone marrow derived mast cells (BMMC), and platelets. Unc18-1 Ser 313 is a protein kinase C phosphorylation site and Thr 574 is a cyclin-dependent kinase 5 phosphorylation site that regulates Unc18-1/syntaxin1A interactions. Unc18-1 is phosphorylated on Ser 313 in response to phorbol ester treatment in adrenal chromaffin cells. Unc18-2 colocalizes with syntaxin 3 at the apical plasma membrane of intestinal, proximal tubule, and collecting duct epithelial cells.

## REFERENCES

- Schraw, T.D., et al. 2003. A role for Sec1/Munc18 proteins in platelet exocytosis. *Biochem. J.* 374: 207-217.
- Barclay, J.W., et al. 2003. Phosphorylation of Munc18 by protein kinase C regulates the kinetics of exocytosis. *J. Biol. Chem.* 278: 10538-10545.
- Gaisano, H.Y., et al. 2004. Alcoholic chronic pancreatitis involves displacement of Munc18c from the pancreatic acinar basal membrane surface. *Pancreas* 28: 395-400.
- Graham, M.E., et al. 2004. Syntaxin/Munc18 interactions in the late events during vesicle fusion and release in exocytosis. *J. Biol. Chem.* 279: 32751-32760.
- Liu, J., et al. 2004. Fluorescence resonance energy transfer reports properties of syntaxin1a interaction with Munc18-1 *in vivo*. *J. Biol. Chem.* 279: 55924-55936.
- Gladychева, S.E., et al. 2004. Regulation of syntaxin1A-munc18 complex for SNARE pairing in HEK293 cells. *J. Physiol.* 558: 857-871.
- Ciufo, L.F., et al. 2005. Munc18-1 regulates early and late stages of exocytosis via syntaxin-independent protein interactions. *Mol. Biol. Cell* 16: 470-482.

## CHROMOSOMAL LOCATION

Genetic locus: STXBP3 (human) mapping to 1p13.3; Stxbp3a (mouse) mapping to 3 F3.

## SOURCE

Unc18-3 (H-96) is a rabbit polyclonal antibody raised against amino acids 50-145 mapping near the N-terminus of Unc18-3 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

Unc18-3 (H-96) is recommended for detection of Unc18-3 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).

Unc18-3 (H-96) is also recommended for detection of Unc18-3 in additional species, including equine, canine and bovine.

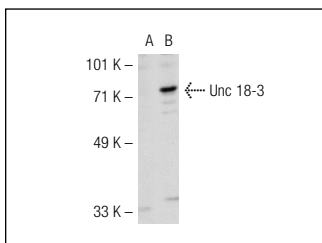
Suitable for use as control antibody for Unc18-3 siRNA (h): sc-42312, Unc18-3 siRNA (m): sc-42313, Unc18-3 shRNA Plasmid (h): sc-42312-SH, Unc18-3 shRNA Plasmid (m): sc-42313-SH, Unc18-3 shRNA (h) Lentiviral Particles: sc-42312-V and Unc18-3 shRNA (m) Lentiviral Particles: sc-42313-V.

Positive Controls: Unc18-3 (h): 293T Lysate: sc-116071.

## 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



Unc18-3 (H-96): sc-28930. Western blot analysis of Unc18-3 expression in non-transfected: sc-117752 (A) and human Unc18-3 transfected: sc-116071 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **Unc18-3 (H-7): sc-373813**, our highly recommended monoclonal alternative to Unc18-3 (H-96).