

Unc18-1/2 (H-300): sc-33604

BACKGROUND

Unc18-1, 2 and 3 (also known as Syntaxin binding proteins 1-3, STXBP1-3, UNC18-a-c and Munc18-1-3) are chaperone molecules that block Syntaxin interactions with cognate SNARE (soluble NSF attachment protein (SNAP) receptors) 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. Thr 574 is a cyclin-dependent kinase 5 phosphorylation site that regulates Unc18-1/Syntaxin 1A interactions. Unc18-1 is phosphorylated on Ser 313 in response to phorbol ester treatment in adrenal chromaffin cells. Unc18-2 co-localizes with Syntaxin 3 at the apical plasma membrane of intestinal, proximal tubule and collecting duct epithelial cells.

REFERENCES

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- 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.
- Gladychева, S.E., et al. 2004. Regulation of syntaxin1A-munc18 complex for SNARE pairing in HEK293 cells. *J. Physiol.* 558: 857-871.
- 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.
- 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.
- Fu, J., et al. 2005. Protease-activated receptor-1 activation of endothelial cells induces protein kinase C α -dependent phosphorylation of syntaxin 4 and Munc18c: role in signaling P-Selectin expression. *J. Biol. Chem.* 280: 3178-3184.

SOURCE

Unc18-1/2 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Unc18-1 of human origin.

PRODUCT

Each vial contains 200 μ g 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

Unc18-1/2 (H-300) is recommended for detection of Unc18-1, Unc18-2 and, to a lesser extent, Unc18-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Unc18-1/2 (H-300) is also recommended for detection of Unc18-1, Unc18-2 and, to a lesser extent, Unc18-3 in additional species, including bovine, porcine and avian.

Molecular Weight of Unc18-1: 70 kDa.

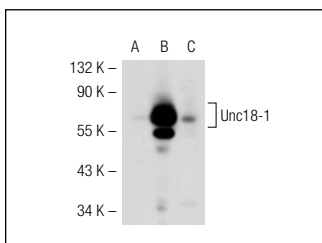
Molecular Weight of Unc18-2: 67 kDa.

Positive Controls: Unc18-1 (h): 293T Lysate: sc-175538, Unc18-1 (m): 293T Lysate: sc-127749 or IMR-32 cell lysate: sc-2409.

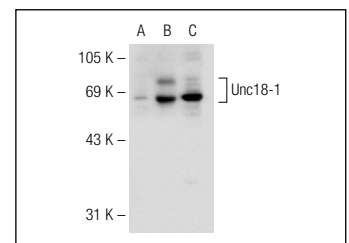
RECOMMENDED SECONDARY REAGENTS

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



Unc18-1/2 (H-300): sc-33604. Western blot analysis of Unc18-1 expression in non-transfected 293T: sc-117752 (A), mouse Unc18-1 transfected 293T: sc-127749 (B) and IMR-32 (C) whole cell lysates.



Unc18-1/2 (H-300): sc-33604. Western blot analysis of Unc18-1 expression in non-transfected 293T: sc-117752 (A), human Unc18-1 transfected 293T: sc-175538 (B) and IMR-32 (C) whole cell lysates.

RESEARCH USE

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

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Try **Unc18-1/2 (D-1): sc-133169** or **Unc18-1 (A-6): sc-514594**, our highly recommended monoclonal alternatives to Unc18-1/2 (H-300).