

Unc18-2 (B-2): sc-376639

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) 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 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 co-localizes with Syntaxin 3 at the apical plasma membrane of intestinal, proximal tubule and collecting duct epithelial cells.

REFERENCES

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- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: STXBP2 (human) mapping to 19p13.2; Stxbp2 (mouse) mapping to 8 A1.1.

SOURCE

Unc18-2 (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 481-519 within an internal region of Unc18-2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-376639 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Unc18-2 (B-2) is recommended for detection of Unc18-2 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 Unc18-2 siRNA (h): sc-42310, Unc18-2 siRNA (m): sc-42311, Unc18-2 shRNA Plasmid (h): sc-42310-SH, Unc18-2 shRNA Plasmid (m): sc-42311-SH, Unc18-2 shRNA (h) Lentiviral Particles: sc-42310-V and Unc18-2 shRNA (m) Lentiviral Particles: sc-42311-V.

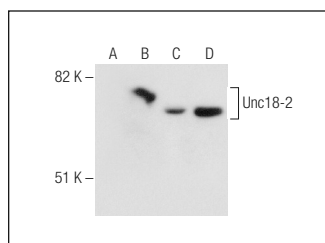
Molecular Weight of Unc18-2: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Unc18-2 (h): 293T Lysate: sc-374966.

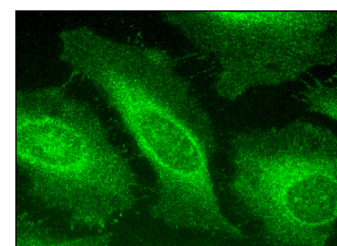
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



Unc18-2 (B-2): sc-376639. Western blot analysis of Unc18-2 expression in non-transfected 293T: sc-117752 (A), human Unc18-2 transfected 293T: sc-374966 (B), Jurkat (C) and K-562 (D) whole cell lysates.



Unc18-2 (B-2): sc-376639. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

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.