

Unc18-2 (I-14): sc-23014

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/Syntaxin 1A 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

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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.
- Ciuffo, 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 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Unc18-2 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-23014 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Unc18-2 (I-14) is recommended for detection of Unc18-2 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).

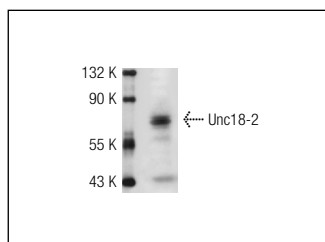
Unc18-2 (I-14) is also recommended for detection of Unc18-2 in additional species, including equine, bovine and porcine.

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: K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

DATA



Unc18-2 (I-14): sc-23014. Western blot analysis of Unc18-2 expression in K-562 whole cell lysates.

SELECT PRODUCT CITATIONS

- Frøsig, C., et al. 2007. Effects of endurance exercise training on Insulin signaling in human skeletal muscle: interactions at the level of phosphatidylinositol 3-kinase, Akt, and AS160. *Diabetes* 56: 2093-2102.

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.


 MONOS
Satisfaction
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Try **Unc18-2 (B-2): sc-376639** or **Unc18-2 (A-6): sc-390503**, our highly recommended monoclonal alternatives to Unc18-2 (I-14).