



Unc18-1 (m): 293T Lysate: sc-127749

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

1. Schraw, T.D., et al. 2003. A role for Sec1/Munc18 proteins in platelet exocytosis. *Biochem. J.* 374: 207-217.
2. Barclay, J.W., et al. 2003. Phosphorylation of Munc18 by protein kinase C regulates the kinetics of exocytosis. *J. Biol. Chem.* 278: 10538-10545.
3. Gaisano, H.Y., et al. 2004. Alcoholic chronic pancreatitis involves displacement of Munc18c from the pancreatic acinar basal membrane surface. *Pancreas* 28: 395-400.
4. 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.
5. Gladychewa, S.E., et al. 2004. Regulation of Syntaxin1A-Munc18 complex for SNARE pairing in HEK293 cells. *J. Physiol.* 558: 857-871.
6. 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.
7. 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.
8. 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.
9. Nigam, R., et al. 2005. Expression and transcriptional regulation of Munc18 isoforms in mast cells. *Biochim. Biophys. Acta* 1728: 77-83.

CHROMOSOMAL LOCATION

Genetic locus: Stxbp1 (mouse) mapping to 2 B.

PRODUCT

Unc18-1 (m): 293T Lysate represents a lysate of mouse Unc18-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Unc18-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Unc18-1 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.