SANTA CRUZ BIOTECHNOLOGY, INC.

# Unc18-3 (h): 293T Lysate: sc-116071

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*The Power to Question*

## 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


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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. Gladycheva, 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. Ciufo, L.F., et al. 2005. Munc18-1 regulates early and late stages of exo-cytosis 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 $\alpha$-dependent phosphorylation of syntaxin 4 and Munc18c: role in signaling P-Selectin expression. J. Biol. Chem. 280: 3178-3184.


## CHROMOSOMAL LOCATION

Genetic locus: STXBP3 (human) mapping to 1p13.3.

## PRODUCT

Unc18-3 (h): 293T Lysate represents a lysate of human Unc18-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## 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.

## APPLICATIONS

Unc18-3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Unc18-3 antibodies. Recommended use: 10-20 µl per lane.

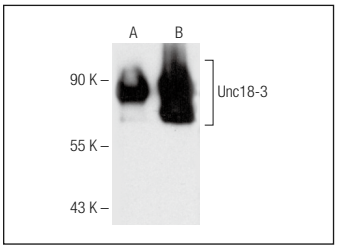
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Unc18-3 (H-7): sc-373813 is recommended as a positive control antibody for Western Blot analysis of enhanced human Unc18-3 expression in Unc18-3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG$\kappa$ BP-HRP: sc-516102 or m-IgG$\kappa$ 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.

## DATA




Unc18-3 (H-7): sc-373813. 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.

## PROTOCOLS

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