

Unc18-1/2 (N-19): sc-14560

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 colocalizes with syntaxin 3 at the apical plasma membrane of intestinal, proximal tubule, and collecting duct epithelial cells.

REFERENCES

- Schraw, T.D., et al. 2003. A role for Sec1/Munc18 proteins in platelet exocytosis. *Biochem. J.* 374: 207-217.
- Barclay, J.W., et al. 2003. Phosphorylation of Munc18 by protein kinase C regulates the kinetics of exocytosis. *J. Biol. Chem.* 278: 10538-10545.

CHROMOSOMAL LOCATION

Genetic locus: STXBP1 (human) mapping to 9q34.1, STXBP2 (human) mapping to 19p13.2; Stxbp1 (mouse) mapping to 2 B, Stxbp2 (mouse) mapping to 8 A1.

SOURCE

Unc18-1/2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus 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-14560 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Unc18-1/2 (N-19) is recommended for detection of Unc18-1 and 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).

Unc18-1/2 (N-19) is also recommended for detection of Unc18-1 and Unc18-2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of Unc18-1: 70 kDa.

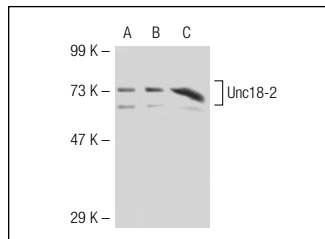
Molecular Weight of Unc18-2: 67 kDa.

Positive Controls: rat brain extract: sc-2392.

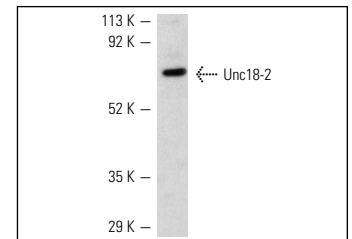
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Unc18-1/2 (N-19): sc-14560. Western blot analysis of Unc18-2 expression in non-transfected 293T: sc-117752 (A), mouse Unc18-2 transfected 293T: sc-124469 (B) and Jurkat (C) whole cell lysates.



Unc18-1/2 (N-19): sc-14560. Western blot analysis of Unc18-2 expression in rat brain extract.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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



Try **Unc18-1/2 (D-1): sc-133169** or **Unc18-1 (A-6): sc-514594**, our highly recommended monoclonal alternatives to Unc18-1/2 (N-19).