

Unc18-1 (P-17): sc-14557

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

- 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 9q34.11; Stxbp1 (mouse) mapping to 2 B.

SOURCE

Unc18-1 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Unc18-1 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-14557 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Unc18-1 (P-17) is recommended for detection of Unc18-1 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 (P-17) is also recommended for detection of Unc18-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Unc18-1 siRNA (h): sc-42308, Unc18-1 siRNA (m): sc-42309, Unc18-1 shRNA Plasmid (h): sc-42308-SH, Unc18-1 shRNA Plasmid (m): sc-42309-SH, Unc18-1 shRNA (h) Lentiviral Particles: sc-42308-V and Unc18-1 shRNA (m) Lentiviral Particles: sc-42309-V.

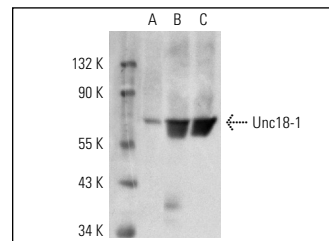
Molecular Weight of Unc18-1: 67 kDa.

Positive Controls: Unc18-1 (m): 293T Lysate: sc-127749, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

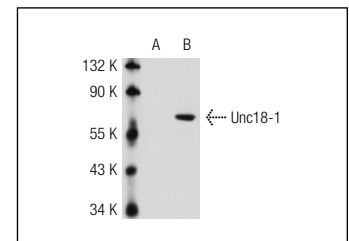
RECOMMENDED SECONDARY REAGENTS

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 (P-17): sc-14557. Western blot analysis of Unc18-1 expression in IMR-32 whole cell lysate (A) and mouse brain (B) and rat brain (C) tissue extracts.



Unc18-1 (P-17): sc-14557. Western blot analysis of Unc18-1 expression in non-transfected: sc-117752 (A) and mouse Unc18-1 transfected: sc-127749 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Bastone, A., et al. 2009. Proteomic profiling of cervical and lumbar spinal cord reveals potential protective mechanisms in the wobbler mouse, a model of motor neuron degeneration. *J. Proteome Res.* 8: 5229-5240.

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.

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 (P-17).