

Syntaxin 5 (P-21): sc-26093

BACKGROUND

Correct vesicular transport is essential to the survival of eukaryotic cells. This process is determined by specific pairing of vesicle-associated SNAREs (v-SNAREs) with those on the target membrane (t-SNAREs). This complex then recruits soluble NSF attachment proteins (SNAPs) and N-ethylmaleimide-sensitive factor (NSF) to form the highly stable SNAP receptor (SNARE) complex. The formation of a SNARE complex pulls the vesicle and target membrane together and may provide the energy to drive fusion of the lipid bilayers. Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain carboxy-terminal hydrophobic domains that direct themselves to their respective intracellular compartments. Syntaxin 5 has a short transmembrane domain that directs this protein for *cis*-Golgi localization. Syntaxin 5 associates with p97 to regulate the assembly of transitional ER. Syntaxin 5 also exists in a SNARE complex containing Golgi Snare (GS) 28, GS15, and Ykt6.

REFERENCES

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- Ravichandran, V. and Roche, P.A. 1997. Cloning and identification of human Syntaxin 5 as a synaptobrevin/VAMP binding protein. *J. Mol. Neurosci.* 8: 159-161.
- Roy, L., Bergeron, J.J., Lavoie, C., Hendriks, R., Gushue, J., Fazel, A., Pelletier, A., Morre, D.J., Subramaniam, V.N., Hong, W. and Paiement, J. 2000. Role of p97 and Syntaxin 5 in the assembly of transitional endoplasmic reticulum. *Mol. Biol. Cell* 11: 2529-2542.
- Lavoie, C., Chevet, E., Roy, L., Tonks, N.K., Fazel, A., Posner, B.I., Paiement, J. and Bergeron, J.J. 2000. Tyrosine phosphorylation of p97 regulates transitional endoplasmic reticulum assembly *in vitro*. *Proc. Natl. Acad. Sci. USA* 97: 13637-13642.

CHROMOSOMAL LOCATION

Genetic locus: STX5A (human) mapping to 11q12.3; Stx5a (mouse) mapping to 19 A.

SOURCE

Syntaxin 5 (P-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Syntaxin 5 of rat 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-26093 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Syntaxin 5 (P-21) is recommended for detection of Syntaxin 5 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for Syntaxin 5 siRNA (h): sc-106586, Syntaxin 5 siRNA (m): sc-153994, Syntaxin 5 shRNA Plasmid (h): sc-106586-SH, Syntaxin 5 shRNA Plasmid (m): sc-153994-SH, Syntaxin 5 shRNA (h) Lentiviral Particles: sc-106586-V and Syntaxin 5 shRNA (m) Lentiviral Particles: sc-153994-V.

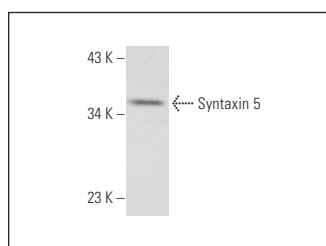
Molecular Weight of Syntaxin 5: 35/42 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

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



Syntaxin 5 (P-21): sc-26093. Western blot analysis of Syntaxin 5 expression in PC-12 whole cell lysate.

RESEARCH USE

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



Try **Syntaxin 5 (B-8): sc-365124**, our highly recommended monoclonal alternative to Syntaxin 5 (P-21).