SANTA CRUZ BIOTECHNOLOGY, INC.

Syntaxin 6 (D-15): sc-23453

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The Power to Question

BACKGROUND

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. Synaptin 6 is a 255 amino acid protein that is widely expressed, with higher expression levels in brain, lung and kidney. This synaptin co-localizes with vesicle associated membrane protein (VAMP) 4 to tubular and vesicular membranes of the Golgi apparatus. The cytosolic domain of Syntaxin 6 reduces the rate on Glut4 reinternalization upon Insulin withdrawl and is involved in a memrane-trafficking process that removes Glut4 from traffic directed to the plasma membrane. Syntaxin 6 is upregulated in activated macrophages in conjunction with an increase in the secretion of cytokines. The delivery of microdomain-associated lipids and proteins to the cell surface is regulated by Syntaxin 6.

REFERENCES

1. Bennett, M.K., Garcia-Arraras, J.E., Elferink, L.A., Peterson, K., Fleming, A.M., Hazuka, C.D. and Scheller, R.H., 1993. The Syntaxin family of vesicular transport receptors. Cell 74: 863-873.
2. Bock, J.B., Lin, R.C. and Scheller, R.H. 1996. A new Syntaxin family member implicated in targeting of intracellular transport vesicles. J. Biol. Chem. 271: 17961-17965.
3. Bock, J.B., Klumperman, J., Davanger, S. and Scheller, R.H. 1997. Syntaxin 6 functions in *trans*-Golgi network vesicle trafficking. Mol. Biol. Cell 8: 1261-1271.
4. Wendler, F., Page, L., Urbe, S. and Tooze, S.A. 2001. Homotypic fusion of immature secretory granules during maturation requires Syntaxin 6. Mol. Biol. Cell 12: 1699-1709.
5. Wendler, F. and Tooze, S. 2001. Syntaxin 6: the promiscuous behaviour of a SNARE protein. Traffic 2: 606-611.
6. LocusLink Report (LocusID: 10228).http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: STX6 (human) mapping to 1q25.3; Stx6 (mouse) mapping to 1 G3.

SOURCE

Syntaxin 6 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Syntaxin 6 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-23453 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

Syntaxin 6 (D-15) is recommended for detection of Syntaxin 6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Syntaxin 6 (D-15) is also recommended for detection of Syntaxin 6 in additional species, including equine.

Suitable for use as control antibody for Syntaxin 6 siRNA (h): sc-41332, Syntaxin 6 siRNA (m): sc-41333, Syntaxin 6 shRNA Plasmid (h): sc-41332-SH, Syntaxin 6 shRNA Plasmid (m): sc-41333-SH, Syntaxin 6 shRNA (h) Lentiviral Particles: sc-41332-V and Syntaxin 6 shRNA (m) Lentiviral Particles: sc-41333-V.

Molecular Weight (predicted) of Syntaxin 6: 29 kDa.

Molecular Weight (observed) of Syntaxin 6: 34 kDa.

Positive Controls: Mouse brain extract: sc-2253 or 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) 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.

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.