

Syntaxin 11 (32): sc-136091

BACKGROUND

Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain C-terminal hydrophobic domains that direct them to their respective intracellular compartments. Syntaxin 11, also known as STX11, FHL4, HLH4 or HPLH4 is a 287 amino acid protein that contains one t-SNARE coiled-coil homology domain and localizes to the membrane of the *trans*-Golgi network. Interacting with SNAP 23 and VAMP, Syntaxin 11 functions to regulate protein transport between the *trans*-Golgi network and late endosomes. Defects in the gene encoding Syntaxin 11 are the cause of familial hemophagocytic lymphohistiocytosis type 4 (FHL4), a genetically heterogeneous autosomal recessive disorder that is characterized by fever, hepatosplenomegaly, cytopenia, hypertriglyceridemia, hypofibrinogenemia, seizures, cranial nerve deficits and ataxia.

REFERENCES

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2. Valdez, A.C., et al. 1999. Syntaxin 11 is associated with SNAP 23 on late endosomes and the *trans*-Golgi network. *J. Cell Sci.* 112 Pt. 6: 845-854.
3. Zur Stadt, U., et al. 2005. Linkage of familial hemophagocytic lymphohistiocytosis (FHL) type-4 to chromosome 6q24 and identification of mutations in Syntaxin 11. *Hum. Mol. Genet.* 14: 827-834.
4. Yamamoto, K., et al. 2005. Mutations of Syntaxin 11 and SNAP 23 genes as causes of familial hemophagocytic lymphohistiocytosis were not found in Japanese people. *J. Hum. Genet.* 50: 600-603.
5. Zur Stadt, U., et al. 2006. Mutation spectrum in children with primary hemophagocytic lymphohistiocytosis: molecular and functional analyses of PRF1, UNC13D, STX11, and Rab 27a. *Hum. Mutat.* 27: 62-68.
6. Bryceson, Y.T., et al. 2007. Defective cytotoxic lymphocyte degranulation in Syntaxin 11 deficient familial hemophagocytic lymphohistiocytosis 4 (FHL4) patients. *Blood* 110: 1906-1915.
7. Arneson, L.N., et al. 2007. Cutting edge: Syntaxin 11 regulates lymphocyte-mediated secretion and cytotoxicity. *J. Immunol.* 179: 3397-3401.

CHROMOSOMAL LOCATION

Genetic locus: STX11 (human) mapping to 6q24.2; Stx11 (mouse) mapping to 10 A1.

SOURCE

Syntaxin 11 (32) is a mouse monoclonal antibody raised against amino acids 12-113 of Syntaxin 11 of human origin.

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. Not for resale.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Syntaxin 11 (32) is recommended for detection of Syntaxin 11 of mouse 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Syntaxin 11 siRNA (h): sc-95389, Syntaxin 11 siRNA (m): sc-153991, Syntaxin 11 shRNA Plasmid (h): sc-95389-SH, Syntaxin 11 shRNA Plasmid (m): sc-153991-SH, Syntaxin 11 shRNA (h) Lentiviral Particles: sc-95389-V and Syntaxin 11 shRNA (m) Lentiviral Particles: sc-153991-V.

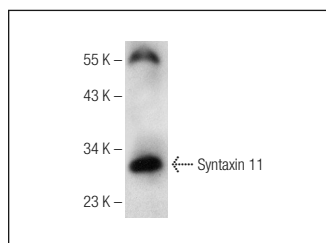
Molecular Weight of Syntaxin 11: 35 kDa.

Positive Controls: Human PBL whole cell lysate or mouse placenta tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Syntaxin 11 (32): sc-136091. Western blot analysis of Syntaxin 11 expression in human PBL whole cell lysate.

PROTOCOLS

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