

Syntaxin 11 (A-4): sc-377121

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

1. Tang, B.L., et al. 1998. Syntaxin 11: a member of the syntaxin family without a carboxyl terminal transmembrane domain. *Biochem. Biophys. Res. Commun.* 245: 627-632.
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: 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 SNAP23 genes as causes of familial hemophagocytic lymphohistiocytosis were not found in Japanese people. *J. Hum. Genet.* 50: 600-603.

CHROMOSOMAL LOCATION

Genetic locus: STX11 (human) mapping to 6q24.2.

SOURCE

Syntaxin 11 (A-4) is a mouse monoclonal antibody raised against amino acids 147-266 mapping near the C-terminus of Syntaxin 11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Syntaxin 11 (A-4) is available conjugated to agarose (sc-377121 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377121 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377121 PE), fluorescein (sc-377121 FITC), Alexa Fluor® 488 (sc-377121 AF488), Alexa Fluor® 546 (sc-377121 AF546), Alexa Fluor® 594 (sc-377121 AF594) or Alexa Fluor® 647 (sc-377121 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377121 AF680) or Alexa Fluor® 790 (sc-377121 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Syntaxin 11 (A-4) is recommended for detection of Syntaxin 11 of human origin by Western Blotting (starting dilution 1:100, 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 11 siRNA (h): sc-95389, Syntaxin 11 shRNA Plasmid (h): sc-95389-SH and Syntaxin 11 shRNA (h) Lentiviral Particles: sc-95389-V.

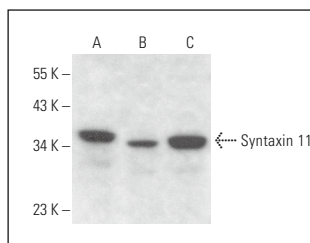
Molecular Weight of Syntaxin 11: 35 kDa.

Positive Controls: Syntaxin 11 (h): 293T Lysate: sc-114478, HL-60 whole cell lysate: sc-2209 or TF-1 cell lysate: sc-2412.

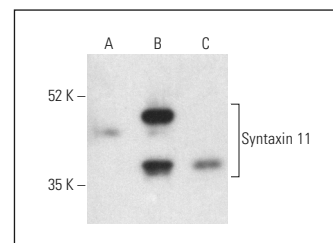
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Syntaxin 11 (A-4): sc-377121. Western blot analysis of Syntaxin 11 expression in HL-60 (A), Jurkat (B) and TF-1 (C) whole cell lysates.



Syntaxin 11 (A-4): sc-377121. Western blot analysis of Syntaxin 11 expression in non-transfected 293T: sc-117752 (A), human Syntaxin 11 transfected 293T: sc-114478 (B) and THP-1 (C) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.

SELECT PRODUCT CITATIONS

1. Viñas-Giménez, L., et al. 2020. Molecular analysis of the novel L243R mutation in STXBP2 reveals impairment of degranulation activity. *Int. J. Hematol.* 111: 440-450.
2. Sennett, C., et al. 2024. α-synuclein deletion impairs platelet function: a role for SNARE complex assembly. *Cells* 13: 2089.

RESEARCH USE

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

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