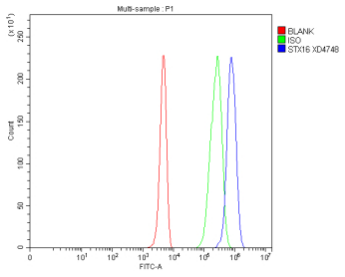
STX16 Antibody / Syntaxin 16 (FY12018)

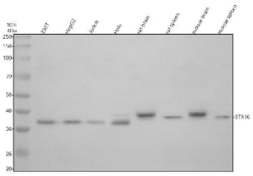
Catalog No.	Formulation	Size
FY12018	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O14662
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This STX16 antibody is available for research use only.



Flow Cytometry analysis of 293T cells using anti-STX16 antibody. Overlay histogram showing 293T cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-STX16 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of STX16 using anti-STX16 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human 293T whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human Hela whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat spleen tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse spleen tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-STX16 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for Syntaxin 16/STX16 at approximately 37 kDa. The expected band size for STX16 is at 37 kDa.

Description

STX16 antibody detects Syntaxin 16, encoded by the STX16 gene. Syntaxin 16 is a member of the SNARE family of proteins that regulate vesicle trafficking, membrane fusion, and intracellular transport. STX16 antibody provides researchers with a specific reagent for studying Golgi and endosomal transport, protein sorting, and cellular homeostasis.

Syntaxin 16 is a membrane-anchored protein localized primarily to the Golgi apparatus and endosomal compartments. Research using STX16 antibody has shown that it forms SNARE complexes with vesicle associated membrane proteins and SNAP proteins, enabling membrane fusion during trafficking. This function is essential for recycling receptors, delivering enzymes, and maintaining compartment identity.

Studies with STX16 antibody have revealed that Syntaxin 16 is critical for retrograde transport from endosomes to the Golgi. By interacting with the retromer complex and cargo adaptors, it ensures retrieval of proteins such as the cation independent mannose-6-phosphate receptor. This pathway maintains lysosomal enzyme delivery and Golgi organization, demonstrating the importance of STX16 in vesicle logistics.

Dysfunction of Syntaxin 16 has been implicated in disease. Research using STX16 antibody has shown that chromosomal rearrangements near the STX16 gene contribute to pseudohypoparathyroidism type 1b, a metabolic disorder characterized by abnormal imprinting and hormone resistance. Altered expression of STX16 has also been observed in cancer and neurodegenerative conditions, linking vesicle transport to disease mechanisms.

Syntaxin 16 is further implicated in glucose metabolism. Studies with STX16 antibody have demonstrated that it participates in trafficking of glucose transporters, affecting insulin responsive glucose uptake. This places Syntaxin 16 within networks connecting vesicle trafficking with metabolic regulation, emphasizing its diverse cellular roles.

STX16 antibody is widely used in western blotting, immunofluorescence, and immunohistochemistry. Western blotting quantifies expression and isoform diversity, immunofluorescence demonstrates Golgi localization and co-localization with trafficking machinery, and immunohistochemistry reveals tissue-specific expression. These applications make STX16 antibody indispensable in vesicle transport research.

By supplying validated STX16 antibody reagents, NSJ Bioreagents supports studies into vesicle fusion, Golgi biology, and disease. Detection of Syntaxin 16 provides insights into how SNARE proteins regulate trafficking pathways and maintain homeostasis.

Application Notes

Optimal dilution of the STX16 antibody should be determined by the researcher.

Immunogen

E.coli-derived human Syntaxin 16/STX16 recombinant protein (Position: M1-K301) was used as the immunogen for the STX16 antibody.

Storage

After reconstitution, the STX16 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.