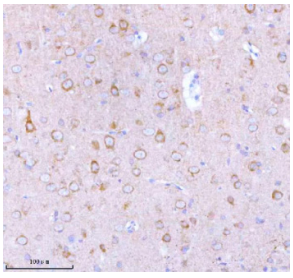
STXBP6 Antibody / Syntaxin-binding protein 6 (FY12616)

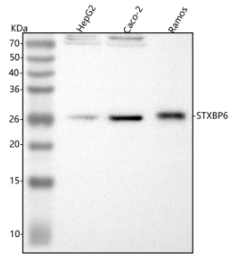
Catalog No.	Formulation	Size
FY12616	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

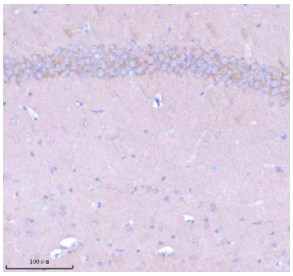
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8NFX7
Localization	Cytoplasm, cell membrane
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This STXBP6 antibody is available for research use only.



Immunohistochemical staining of STXBP6 using anti-STXBP6 antibody. STXBP6 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-STXBP6 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of STXBP6 using anti-STXBP6 antibody. Lane 1: human HepG2 whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human Ramos whole cell 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-STXBP6 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 enhanced chemiluminescent. The expected molecular weight of STXBP6 is ~24 kDa.



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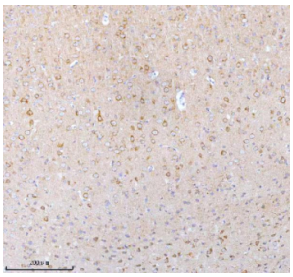

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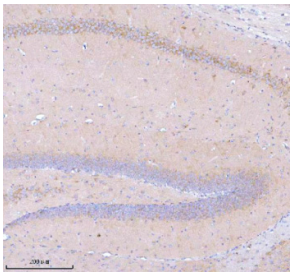

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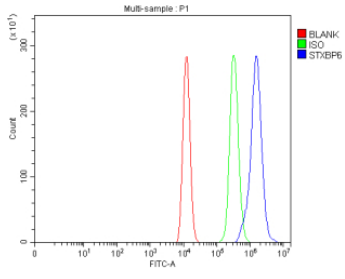

Flow Cytometry analysis of HEL cells using anti-STXBP6 antibody. Overlay histogram showing HEL cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-STXBP6 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 (Red line) was also used as a control.

Description

STXBP6 antibody detects Syntaxin-binding protein 6, also known as Amisyn, a vesicle trafficking protein that regulates membrane fusion and neurotransmitter release. STXBP6 interacts with syntaxin family members and SNARE complexes, modulating vesicular exocytosis and endocytosis. The STXBP6 antibody is widely used in neurobiology and cell trafficking research to study synaptic regulation, vesicle dynamics, and membrane fusion events.

STXBP6 is encoded by the STXBP6 gene located on human chromosome 14q23.2. The protein is approximately 246 amino acids long and contains coiled-coil domains that facilitate interaction with syntaxins such as STX1A and STX3.

STXBP6 localizes to the cytoplasm and plasma membrane, where it competes with other SNARE regulators to fine-tune exocytic activity.

The STXBP6 antibody detects a 28 kilodalton band by western blot and shows cytoplasmic and perinuclear puncta consistent with vesicle-associated localization. In neurons, STXBP6 modulates neurotransmitter release by inhibiting SNARE complex assembly under resting conditions and promoting controlled vesicle fusion upon stimulation. Beyond the nervous system, STXBP6 regulates exocytosis in endocrine and epithelial cells, influencing hormone and transporter release.

Loss or dysregulation of STXBP6 affects vesicle cycling, leading to synaptic transmission defects and altered cellular signaling. In cancer cells, altered STXBP6 expression influences migration and invasion through effects on membrane recycling and adhesion molecule trafficking. It also plays roles in insulin granule exocytosis and endosomal trafficking in non-neuronal tissues.

As a modulator of vesicle docking and fusion, STXBP6 serves as a versatile model for understanding SNARE-mediated transport and signal propagation. NSJ Bioreagents provides a validated STXBP6 antibody optimized for its applications, supporting research into synaptic physiology, secretion, and membrane dynamics.

Application Notes

Optimal dilution of the STXBP6 antibody should be determined by the researcher.

Immunogen

E.coli-derived human STXBP6 recombinant protein (Position: K9-R176) was used as the immunogen for the STXBP6 antibody.

Storage

After reconstitution, the STXBP6 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.