

STX1A Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9813a

Specification

STX1A Antibody (N-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	O16623
Other Accession	P32851 , O35526
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33023
Antigen Region	29-57

STX1A Antibody (N-term) - Additional Information

Gene ID 6804

Other Names

Syntaxin-1A, Neuron-specific antigen HPC-1, STX1A, STX1

Target/Specificity

This STX1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 29-57 amino acids from the N-terminal region of human STX1A.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

STX1A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

STX1A Antibody (N-term) - Protein Information

Name STX1A

Synonyms STX1

Function Plays an essential role in hormone and neurotransmitter calcium-dependent exocytosis and endocytosis (PubMed:[26635000](#)). Part of the SNARE (Soluble NSF Attachment Receptor) complex composed of SNAP25, STX1A and VAMP2 which mediates the fusion of synaptic vesicles with the presynaptic plasma membrane. STX1A and SNAP25 are localized on the plasma membrane while VAMP2 resides in synaptic vesicles. The pairing of the three SNAREs from the N-terminal SNARE motifs to the C-terminal anchors leads to the formation of the SNARE complex, which brings membranes into close proximity and results in final fusion. Participates in the calcium-dependent regulation of acrosomal exocytosis in sperm (PubMed:[23091057](#)). Also plays an important role in the exocytosis of hormones such as insulin or glucagon-like peptide 1 (GLP-1) (By similarity).

Cellular Location

Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:O35526}; Single-pass type IV membrane protein {ECO:0000250|UniProtKB:O35526}. Synapse, synaptosome {ECO:0000250|UniProtKB:O35526}. Cell membrane {ECO:0000250|UniProtKB:P32851}. Note=Colocalizes with KCNB1 at the cell membrane. {ECO:0000250|UniProtKB:P32851}

Tissue Location

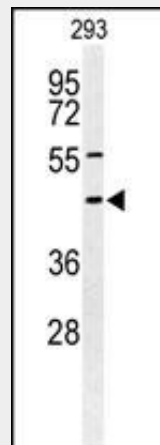
[Isoform 1]: Highly expressed in embryonic spinal cord and ganglia and in adult cerebellum and cerebral cortex

STX1A Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

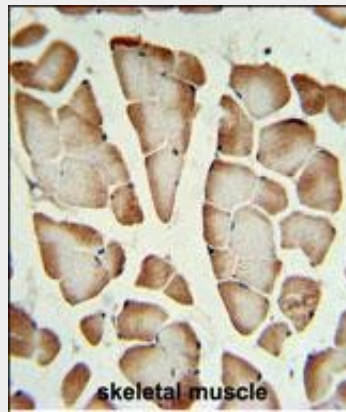
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

STX1A Antibody (N-term) - Images

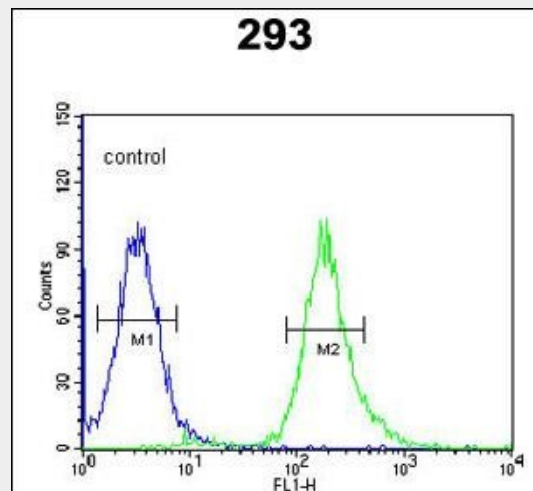


Western blot analysis of STX1A Antibody (N-term) (Cat. #AP9813a) in 293 cell line lysates

(35ug/lane). STX1A (arrow) was detected using the purified Pab.



STX1A Antibody (N-term) (Cat. #AP9813a) IHC analysis in formalin fixed and paraffin embedded skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the STX1A Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



STX1A Antibody (N-term) (Cat. #AP9813a) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

STX1A Antibody (N-term) - Background

This gene encodes a member of the syntaxin superfamily. Syntaxins are nervous system-specific proteins implicated in the docking of synaptic vesicles with the presynaptic plasma membrane. Syntaxins possess a single C-terminal transmembrane domain, a SNARE [Soluble NSF (N-ethylmaleimide-sensitive fusion protein)-Attachment protein REceptor] domain (known as H3), and an N-terminal regulatory domain (Habc). Syntaxins bind synaptotagmin in a calcium-dependent fashion and interact with voltage dependent calcium and potassium channels via the C-terminal H3 domain. This gene product is a key molecule in ion channel regulation and synaptic exocytosis.

STX1A Antibody (N-term) - References

- Yoshida, T., et al. *Int. J. Mol. Med.* 24(2):233-246(2009)
- Hamdan, F.F., et al. *Ann. Neurol.* 65(6):748-753(2009)
- Corominas, R., et al. *Neurosci. Lett.* 455(2):105-109(2009)
- Chen, C.S., et al. *J. Biol. Chem.* 284(11):6877-6884(2009)
- Ramakrishnan, N.A., et al. *J. Biol. Chem.* 284(3):1364-1372(2009)

Tian, J.H., et al. J. Biol. Chem. 278(28):26265-26274(2003)