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STX1A Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9813a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q16623
Other Accession	P32851, O35526
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24554
Calculated MW	33023
Antigen Region	29-57

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~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
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.

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

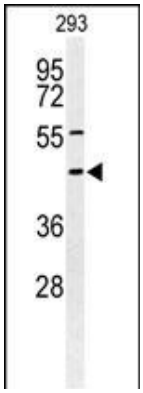
Background

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.

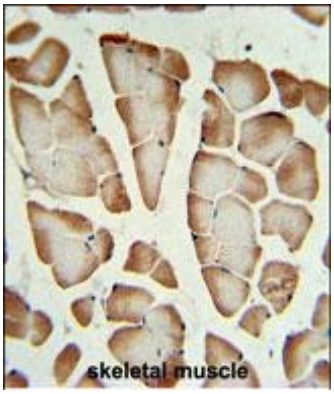
References

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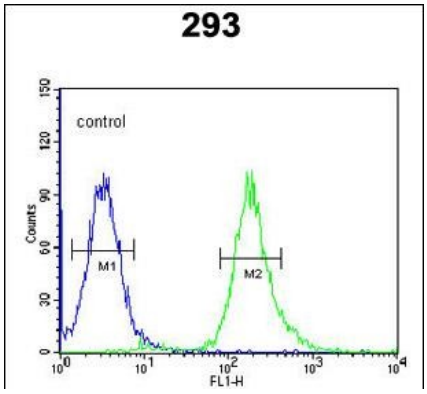
Images



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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.