Product Name: Syntaxin 1 Rabbit Polyclonal Antibody
Catalog #: APRab18510

Summary

Production Name	Syntaxin 1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	STX1A
Alternative Names	STX1A; STX1; Syntaxin-1A; Neuron-specific antigen HPC-1
Gene ID	6804.0
SwissProt ID	Q16623.The antiserum was produced against synthesized peptide derived from human Syntaxin 1A. AA range:1-50

Application

Dilution Ratio	WB 1:500 - 1:2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	35kD

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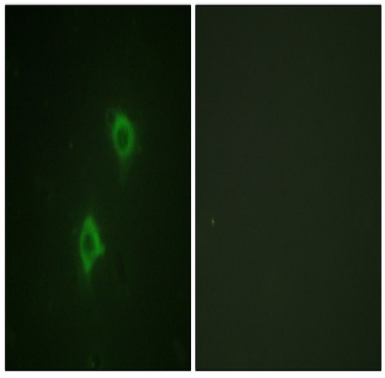
Background

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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009],disease:Haploinsufficiency of STX1A may be the cause of certain cardiovascular and musculo-skeletal abnormalities observed in Williams-Beuren syndrome (WBS), a rare developmental disorder. It is a contiguous gene deletion syndrome involving genes from chromosome band 7q11.23.,function:Potentially involved in docking of synaptic vesicles at presynaptic active zones. May play a critical role in neurotransmitter exocytosis.,similarity:Belongs to the syntaxin family.,similarity:Contains 1 t-SNARE coiled-coil homology domain.,subunit:Part of the SNARE core complex containing SNAP25, VAMP2 and STX1A. This complex binds to CPLX1. Binds SYTL4 and STXBP6. Found in a ternary complex with STX1A and SNAP25. Interacts with OTOF (By similarity). Found in a complex with VAMP8 and SNAP23. Interacts with VAPA and SYBU.,tissue specificity:Isoform 1 is highly expressed in embryonic spinal chord and ganglia and in adult cerebellum and cerebral cortex. Isoform 2 is expressed in heart, liver, fat, skeletal muscle, kidney and brain.,

Research Area

SNARE interactions in vesicular transport;

Image Data



Immunofluorescence analysis of NIH/3T3 cells, using Syntaxin 1A Antibody. The picture on the right is blocked with the synthesized peptide.

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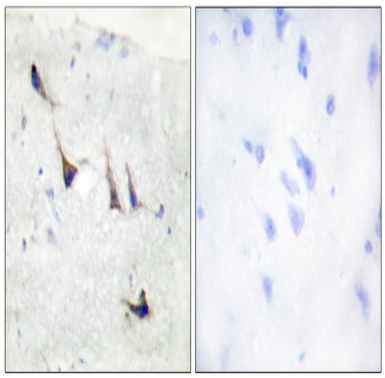
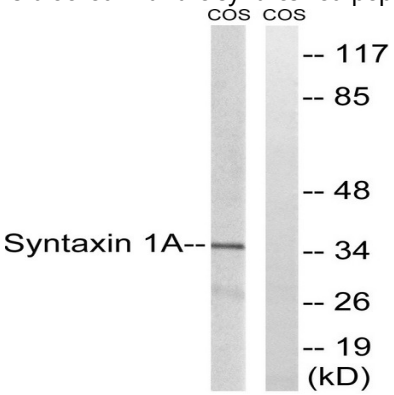
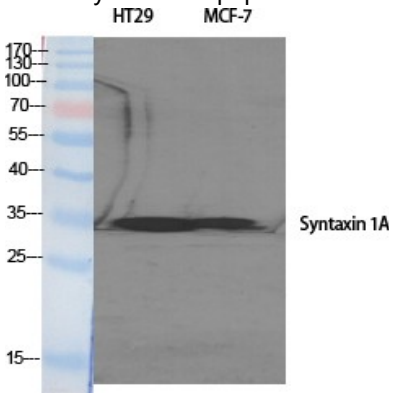


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Syntaxin 1A Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, using Syntaxin 1A Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Syntaxin 1 Polyclonal Antibody

Note

For research use only.