

Syntaxin 1A Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP53323

Product Information

Application	WB
Primary Accession	Q16623
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33023

Additional Information

Gene ID	6804
Other Names	Syntaxin-1A, Neuron-specific antigen HPC-1, STX1A, STX1
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

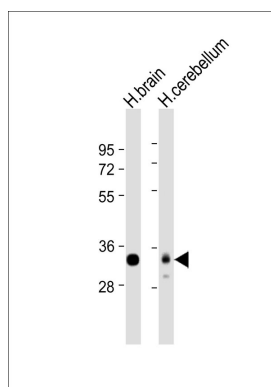
Background

Potentially involved in docking of synaptic vesicles at presynaptic active zones. May play a critical role in neurotransmitter exocytosis. May mediate Ca(2+)-regulation of exocytosis acrosomal reaction in sperm.

References

Zhang R.-D.,et al.Gene 159:293-294(1995).
Osborne L.R.,et al.Am. J. Hum. Genet. 61:449-452(1997).
Wu Y.-Q.,et al.Am. J. Med. Genet. 109:121-124(2002).
Jagadish M.N.,et al.Biochem. J. 321:151-156(1997).
Nakayama T.,et al.Genomics 42:173-176(1997).

Images



All lanes : Anti-Syntaxin 1A Antibody at 1:1000 dilution
Lane 1: human brain lysate Lane 2: human cerebellum lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.
Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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