

Anti-Syntaxin 1A Picoband Antibody

Catalog # ABO12099

Product Information

Application	WB
Primary Accession	Q16623
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Syntaxin-1A(STX1A) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6804
Other Names	Syntaxin-1A, Neuron-specific antigen HPC-1, STX1A, STX1
Calculated MW	33023
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane ; Single-pass type IV membrane protein . Cell junction, synapse, synaptosome . Cell membrane . Colocalizes with KCNB1 at the cell membrane. .
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. .
Source	Eukaryota
Protein Name	Syntaxin-1A
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Syntaxin 1a(1-28aa MKDRTQELRTAKDSDDDDVAVTVDRDR), different from the related mouse and rat sequences by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the syntaxin family.

Protein Information

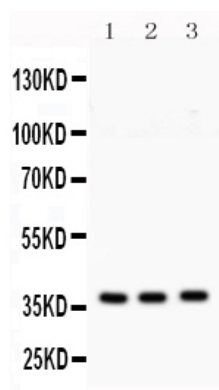
Name	STX1A
Synonyms	STX1
Function	Plays an essential role in hormone and neurotransmitter calcium-dependent exocytosis and endocytosis (PubMed: 26635000). Part of the SNARE (Soluble NSF Attachment Receptor) complex composed of SNAP25, STX1A and VAMP2 which mediates the fusion of synaptic vesicles with 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

Syntaxin-1A is 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. Syntaxin-1A is a key protein in ion channel regulation and synaptic exocytosis.

Images

Anti- Syntaxin 1a Picoband antibody, ABO12099, Western blotting
 All lanes: Anti Syntaxin 1a (ABO12099) at 0.5ug/ml
 Lane 1: Rat Brain Tissue Lysate at 50ug
 Lane 2: Mouse Brain Tissue Lysate at 50ug
 Lane 3: U87 Whole Cell Lysate at 40ug
 Predicted bind size: 33KD
 Observed bind size: 37KD



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