

Anti-Syntaxin 1A Picoband Antibody
Catalog # ABO12099**Specification****Anti-Syntaxin 1A Picoband Antibody - 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.

Anti-Syntaxin 1A Picoband Antibody - Additional Information

Gene ID 6804

Other Names

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

Calculated MW

33023 MW KDa

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. .

Protein Name

Syntaxin-1A

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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 reconstitution, 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.

Anti-Syntaxin 1A Picoband Antibody - Protein Information

Name STX1A

Synonyms STX1

Function

Plays an essential role in hormone and neurotransmitter calcium-dependent exocytosis and endocytosis (PubMed:[26635000](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

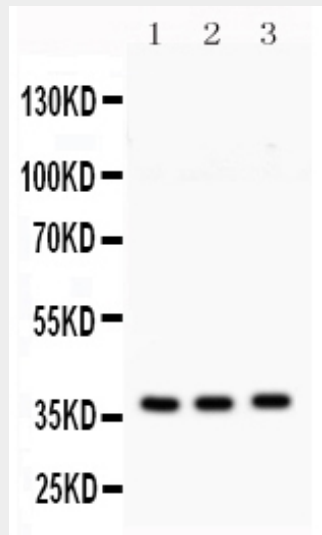
Anti-Syntaxin 1A Picoband Antibody - Protocols

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](#)

Anti-Syntaxin 1A Picoband Antibody - 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

Anti-Syntaxin 1A Picoband Antibody - 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.