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Goat Anti-STX1A / STX1B Antibody
Peptide-affinity purified goat antibody
Catalog # AF2048a

Specification

Goat Anti-STX1A / STX1B Antibody - Product Information

Application	**WB**
Primary Accession	Q16623
Other Accession	NP_443106, 6804, 112755, 20907 (mouse), 116470 (rat)
Reactivity	**Mouse**
Predicted	**Human, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**33023**

Goat Anti-STX1A / STX1B Antibody - Additional Information

Gene ID 6804

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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-STX1A / STX1B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-STX1A / STX1B Antibody - 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}

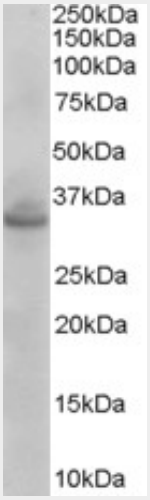
Tissue Location
[Isoform 1]: Highly expressed in embryonic spinal cord and ganglia and in adult cerebellum and cerebral cortex

Goat Anti-STX1A / STX1B 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 Cytomety
- Cell Culture

Goat Anti-STX1A / STX1B Antibody - Images



AF2048a (0.003 µg/ml) staining of Mouse Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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Goat Anti-STX1A / STX1B Antibody - 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.

Goat Anti-STX1A / STX1B Antibody - References

Proteome analysis of the thalamus and cerebrospinal fluid reveals glycolysis dysfunction and potential biomarkers candidates for schizophrenia. Martins-de-Souza D, et al. J Psychiatr Res, 2010 May 14. PMID 20471030.
Evidence of syntaxin 1A involvement in migraine susceptibility: a Portuguese study. Lemos C, et al. Arch Neurol, 2010 Apr. PMID 20385907.
Association of genetic variants with chronic kidney disease in individuals with different lipid profiles. Yoshida T, et al. Int J Mol Med, 2009 Aug. PMID 19578796.
De novo STXBP1 mutations in mental retardation and nonsyndromic epilepsy. Hamdan FF, et al. Ann Neurol, 2009 Jun. PMID 19557857.
Contribution of syntaxin 1A to the genetic susceptibility to migraine: a case-control association study in the Spanish population. Corominas R, et al. Neurosci Lett, 2009 May 15. PMID 19368856.