

**STX1A Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9813a****Specification**

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**STX1A Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q16623](#)**STX1A Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 6804**Other Names**

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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**STX1A Antibody (N-term) Blocking Peptide - Protein Information****Name** STX1A**Synonyms** STX1**Function**

Plays an essential role in hormone and neurotransmitter calcium-dependent exocytosis and endocytosis (PubMed:<a href="http://www.uniprot.org/citations/26635000" target="\_blank">26635000</a>). 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:<a href="http://www.uniprot.org/citations/23091057" target="\_blank">23091057</a>). 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

**STX1A Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**STX1A Antibody (N-term) Blocking Peptide - Images****STX1A Antibody (N-term) Blocking Peptide - 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.

**STX1A Antibody (N-term) Blocking Peptide - References**

Yoshida, T., et al. Int. J. Mol. Med. 24(2):233-246(2009)Hamdan, F.F., et al. Ann. Neurol. 65(6):748-753(2009)Corominas, R., et al. Neurosci. Lett. 455(2):105-109(2009)Chen, C.S., et al. J. Biol. Chem. 284(11):6877-6884(2009)Ramakrishnan, N.A., et al. J. Biol. Chem. 284(3):1364-1372(2009)Tian, J.H., et al. J. Biol. Chem. 278(28):26265-26274(2003)