10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Synaptophysin Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP2039a

Specification

Synaptophysin Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P08247

Synaptophysin Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 6855

Other Names
Synaptophysin, Major synaptic vesicle protein p38, SYP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2039a was selected from the N-term region of human Synaptophysin . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

Synaptophysin Antibody (N-term) Blocking Peptide - Protein Information

Name SYP

Function
Possibly involved in structural functions as organizing other membrane components or in targeting the vesicles to the plasma membrane. Involved in the regulation of short-term and long-term synaptic plasticity (By similarity).

Cellular Location
Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Multi-pass membrane protein. Synapse, synaptosome

Tissue Location
Expressed in the brain, with expression in the hippocampus, the neuropil in the dentate gyrus, where expression is higher in the outer half of the molecular layer than in the inner half, and in the neuropil of CA4 and CA3 (PubMed:8838578). Expressed in the putamen (at protein level)

(PubMed:17296554)

Synaptophysin Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Synaptophysin Antibody (N-term) Blocking Peptide - Images

Synaptophysin Antibody (N-term) Blocking Peptide - Background

Synaptophysin is a transmembrane glycoprotein present in neuronal presynaptic vesicles in brain, spinal cord, retina, vesicles of adrenal medulla, neuromuscular junctions, and endocrine cells. It is also expressed by neuroendocrine cells throughout the body. This protein consists of four transmembrane domains, with its amino- and carboxyl-terminus facing the cytoplasm. Coltage-dependent channel activity is seen when synaptophysin hexamers are reconstituted into lipid membranes, reminiscent of gap-junction proteins. Synaptophysin appears to be a significant cholesterol-binding protein in brain synaptic vesicles. A regioselective downregulation of synaptophysin is found in patients with Alzheimer.s disease and schizophrenia.

Synaptophysin Antibody (N-term) Blocking Peptide - References

Yao, P.J., et al., Neurobiol. Aging 24(1):173-178 (2003).Lietz, M., et al., Eur. J. Biochem. 270(1):2-9 (2003).Kazantseva, I.A., et al., Arkh Patol 64(5):8-13 (2002).Ulfig, N., et al., Neurosignals 11(2):95-102 (2002).Fisher, S.E., et al., Genomics 45(2):340-347 (1997).