

Anti-Synaptophysin Picoband Antibody

Catalog # ABO12100

Product Information

Application	WB
Primary Accession	P08247
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Synaptophysin(SYP) 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	6855
Other Names	Synaptophysin, Major synaptic vesicle protein p38, SYP
Calculated MW	33845
Application Details	Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human
Subcellular Localization	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Multi-pass membrane protein. Cell junction, synapse, synaptosome.
Tissue Specificity	Characteristic of a type of small (30-80 nm) neurosecretory vesicles, including presynaptic vesicles, but also vesicles of various neuroendocrine cells of both neuronal and epithelial phenotype.
Source	Eukaryota
Protein Name	Synaptophysin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Synaptophysin(1-26aa MLLADMDVWNQLVAGGQFRVKEPL), identical to the related mouse and rat sequences.
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

Sequence Similarities

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Belongs to the synaptophysin/synaptobrevin family.

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)

Background

SYP(Synaptophysin) is located on the short arm of X chromosome (Xp11.23-p11.22). The protein is a synaptic vesicle glycoprotein with four transmembrane domains weighing 38kDa. It is present in neuroendocrine cells and in virtually all neurons in the brain and spinal cord that participate in synaptic transmission. It acts as a marker for neuroendocrine tumors, and its ubiquity at the synapse has led to the use of synaptophysin immunostaining for quantification of synapses. Also, the protein binds cholesterol and is thought to direct targeting of vesicle-associated membrane protein 2 (synaptobrevin) to intracellular compartments. Mutations in this gene are associated with X-linked mental retardation (XLMR).

Images



Anti- Synaptophysin Picoband antibody, ABO12100,
Western blotting All lanes: Anti Synaptophysin (ABO12100)
at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2:
Mouse Brain Tissue Lysate at 50ug Predicted bind size:
34KD Observed bind size: 34KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.