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SYP Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1385a

Product Information

Application	WB, IHC, E
Primary Accession	P08247
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	7H12
Isotype	IgG1
Calculated MW	33845
Description	Synaptophysin (p38) is an integral membrane protein of small synaptic vesicles in brain and endocrine cells.Synaptophysin contains four transmembrane domains that form a hexameric channel or gap junction-like pore. Synaptophysin binds to the SNARE protein synaptobrevin/VAMP, which prevents the inclusion of synaptobrevin in the synaptic vesicle fusion complex and creates a pool of synaptobrevin for exocytosis when synapse activity increases. Synaptophysin is also responsible for targeting synaptobrevin 2/VAMP2 to synaptic vesicles, a critical component of the fusion complex.
Immunogen	Purified recombinant fragment of SYP expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	6855
Other Names	Synaptophysin, Major synaptic vesicle protein p38, SYP
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
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	SYP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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)

References

1. Cancer. 2007 Oct 15;110(8):1776-81. 2. J Gastroenterol Hepatol. 2008 Oct;23(10):1574-85. 3. Virchows Arch. 2009 Aug;455(2):125-32.

Images

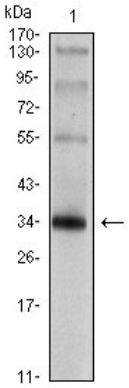


Figure 1: Western blot analysis using SYP mouse mAb against rat brain tissue lysate.

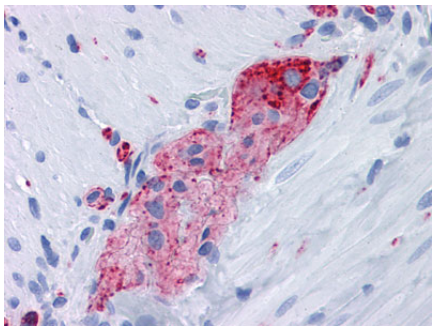


Figure 2: Immunohistochemical analysis of paraffin-embedded human Small Intestine, myenteric plexus tissues using anti-SYP mouse mAb

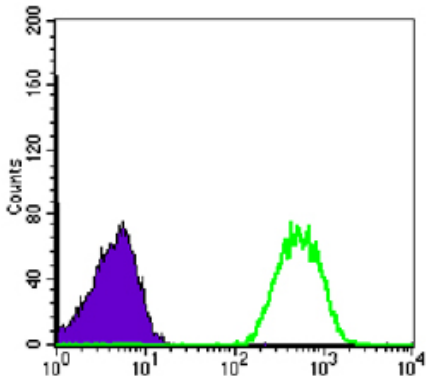


Figure 4: Flow cytometric analysis of Jurkat cells using NME1 mouse mAb (green) and negative control (purple).

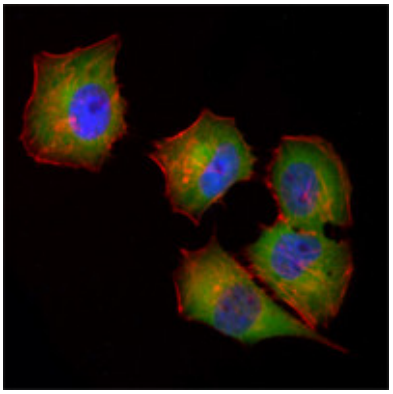


Figure 2:Immunofluorescence analysis of Hela cells using NME1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

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