

Alexa Fluor® 647 anti-Synaptophysin Antibody

Catalog# / Size	837105 / 25 µg 837106 / 100 µg
Clone	SP17
Regulatory Status	RUO
Other Names	SYP, Synaptophysin, Major synaptic vesicle protein P38
Isotype	Mouse IgM, κ
Description	Synaptophysin, also known as major synaptic vesicle protein P38, is encoded by the SYP gene in humans and is located on the short arm of the X chromosome. Synaptophysin is expressed in neuroendocrine cells as well as all neurons in the CNS that participate in synaptic transmission. Synaptophysin is a synaptic vesicle glycoprotein, and interacts with synaptobrevin. It has been implicated in X-linked mental retardation and can be used as a specific marker for cells of the adrenal medulla and pancreatic islets. As such, it can be used to identify tumors that are derived from those cells, including neuroblastoma, retinoblastoma, medulloblastoma, and others.

Product Details

Verified Reactivity	Human, Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This antibody was raised against a crude synaptic preparation from post mortem human brain.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	IHC-P - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 1.0 - 5.0 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Excitation Laser	Red Laser (633 nm)
Application Notes	SP17 reacts with native, denatured and recombinant synaptic vesicle protein synaptophysin expressed in CHO cells. The antibody is particularly valuable for immunocytochemical studies of the brain due to its stability in formalin sections.

Application References

(PubMed link indicates
BioLegend citation)

1. Frigo DE and McDonnell DP. 2008. *Mol. Cancer Ther.* 3:659. (WB) [PubMed](#)
2. Wolf AB, *et al.* 2012. *J Alzheimers Dis.* 1:217. (ELISA) [PubMed](#)
3. Wolf A, *et al.* 2012. *J Alzheimers Dis.* 32:217-232. (ELISA) [PubMed](#)
4. McDonnell D 2008. *Mol Cancer Ther.* 7:659-669. (WB) [PubMed](#)

RRID

AB_3662339 (BioLegend Cat. No. 837105)
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Antigen Details

Structure	Synaptophysin is a 313 amino acid protein with an apparent molecular mass of 34 kD.
Distribution	Tissue distribution: Brain, pancreas, adipose and soft tissue, gastrointestinal tract, bone marrow, and immune system. Cellular Distribution: Plasma and synaptic vesicle membrane.
Function	Synaptophysin plays a role in synaptic vesicle docking and membrane fusion.
Interaction	SRCIN1, also interact with itself to form homohexamer or homotetramer
Biology Area	Cell Biology, Neuroscience, Synaptic Biology
Molecular Family	Presynaptic proteins
Antigen References	<ol style="list-style-type: none">1. Zhang L, <i>et al.</i> 2018. <i>Medicine (Baltimore).</i> 97(29):e114872. Moris, <i>et al.</i> 2018. <i>Anticancer res.</i> 38(2):6013. Hami J, <i>et al.</i> 2017. <i>J pediatr Neurosci.</i> 12(3):215
Gene ID	6855

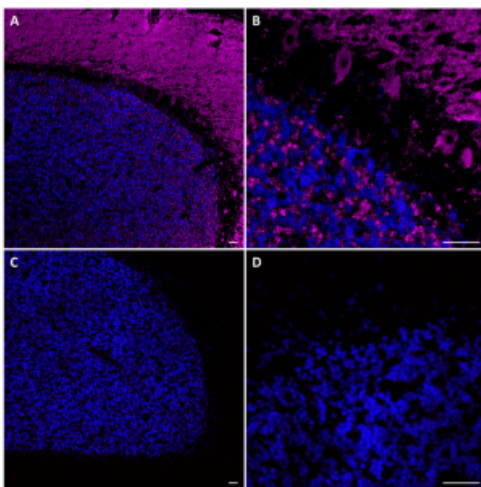
Related Protocols

- [Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

Other Formats

Purified anti-Synaptophysin, Alexa Fluor® 647 anti-Synaptophysin

Product Data



IHC staining of Alexa Fluor® 647 anti-Synaptophysin (clone SP17) on formalin-fixed paraffin-embedded human brain. Following antigen retrieval using 1X Citrate Buffer (Cat. No. 420902), the tissue was then incubated with (panels A and B) and without (panels C and D) Alexa Fluor® 647 anti-Synaptophysin (clone SP17). Nuclei were counterstained with DAPI (Cat. No. 422801). Images were captured with a 10X (panels A and C) or a 40X (panels B and D) objective. Scale bar: 50 µm

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