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#9020

## Synaptophysin (7H12) Mouse mAb (IF Formulated)



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<b>Applications:</b> IF-F	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P08247	<b>Entrez-Gene Id:</b> 6855
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<b>Product Usage Information</b>	<b>Application</b> Immunofluorescence (Frozen)	<b>Dilution</b> 1:200
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Synaptophysin (7H12) Mouse mAb (IF Formulated) recognizes endogenous levels of total synaptophysin protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a recombinant protein specific to the carboxy terminus of human synaptophysin protein.	
<b>Background</b>	Synaptophysin (SYP) is a neuronal synaptic vesicle glycoprotein that is expressed in neuroendocrine cells and neoplasms (1). Synaptophysin contains four transmembrane domains that form a hexameric channel or gap junction-like pore (2). 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 (3). Synaptophysin is also responsible for targeting synaptobrevin 2/VAMP2 to synaptic vesicles, a critical component of the fusion complex (4).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Wiedenmann, B. et al. (1986) <i>Proc Natl Acad Sci USA</i> 83, 3500-4.</li> <li>2. Valtorta, F. et al. (2004) <i>Bioessays</i> 26, 445-53.</li> <li>3. Arthur, C.P. and Stowell, M.H. (2007) <i>Structure</i> 15, 707-14.</li> <li>4. Bonanomi, D. et al. (2007) <i>Biochem J</i> 404, 525-34.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>IF-F:</b> Immunofluorescence (Frozen)
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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