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#5467

Synaptophysin (D40C4) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 38	Source/Isotype: Rabbit IgG	UniProt ID: #P08247	Entrez-Gene Id: 6855
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Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
Storage	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.	
Specificity/Sensitivity	Synaptophysin (D40C4) Rabbit mAb detects endogenous levels of total synaptophysin protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide surrounding Pro195 of human synaptophysin protein.	
Background	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).	
Background References	<ol style="list-style-type: none"> 1. Wiedenmann, B. et al. (1986) <i>Proc Natl Acad Sci USA</i> 83, 3500-4. 2. Valtorta, F. et al. (2004) <i>Bioessays</i> 26, 445-53. 3. Arthur, C.P. and Stowell, M.H. (2007) <i>Structure</i> 15, 707-14. 4. Bonanomi, D. et al. (2007) <i>Biochem J</i> 404, 525-34. 	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.	
Applications Key	W: Western Blotting IP: Immunoprecipitation	
Cross-Reactivity Key	H: Human M: Mouse R: Rat	
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