


Store at -20C  #5461	Synaptophysin (D35E4) Rabbit mAb	
		<b>Orders:</b> 877-616-CELL (2355) orders@cellsignal.com
		<b>Support:</b> 877-678-TECH (8324)
		<b>Web:</b> info@cellsignal.com cellsignal.com
3 Trask Lane   Danvers   Massachusetts   01923   USA		

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	38	Rabbit IgG	#P08247	6855
<b>Product Usage Information</b>	<b>Application</b>		<b>Dilution</b>			
	Western Blotting		1:1000			
	Immunoprecipitation		1:25			
<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 (D35E4) Rabbit mAb detects endogenous levels of total synaptophysin protein.					
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide surrounding Ala230 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>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>W:</b> Western Blotting <b>IP:</b> Immunoprecipitation
<b>Cross-Reactivity Key</b>	<b>H:</b> Human <b>M:</b> Mouse <b>R:</b> Rat
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