

#4830 Store at -20°C

Calmodulin Antibody


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

Applications: WB	Reactivity: M R	Sensitivity: Endogenous	MW (kDa): 17	Source: Rabbit	UniProt ID: #P0DP23	Entrez-Gene Id: 801
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Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Calmodulin Antibody detects endogenous levels of total calmodulin protein.	
Species predicted to react based on 100% sequence homology:	Human, Monkey, Xenopus, Pig	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Glu140 of human calmodulin. Antibodies are purified by peptide affinity chromatography.	
Background	Calmodulin is a ubiquitously expressed small protein mediating many cellular effects such as short-term and long-term memory, nerve growth, inflammation, apoptosis, muscle contraction and intracellular movement (1). Upon binding of four Ca ²⁺ ions, calmodulin undergoes conformational changes, allowing this complex to bind to and activate many enzymes including protein kinases, protein phosphatases, ion channels, Ca ²⁺ pumps, nitric oxide synthase, inositol triphosphate kinase, and cyclic nucleotide phosphodiesterase (2,3). Since calmodulin binds Ca ²⁺ in a cooperative fashion, small changes in cytosolic Ca ²⁺ levels lead to large changes in the level of active calmodulin and its target proteins (4).	
Background References	1. Persechini, A. et al. (1989) <i>Trends Neurosci</i> 12, 462-7. 2. Finn, B.E. et al. (1995) <i>Nat Struct Biol</i> 2, 777-83. 3. Agell, N. et al. (2002) <i>Cell Signal</i> 14, 649-54. 4. Porter, J.A. et al. (1993) <i>Science</i> 262, 1038-42.	

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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