

Calmodulin (D1F7J) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	17	Rabbit IgG	#PODP23	801

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Calmodulin (D1F7J) Rabbit mAb recognizes endogenous levels of total calmodulin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human calmodulin protein.

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 Ca²⁺ ions, calmodulin undergoes conformational changes, allowing this complex to bind to and activate many enzymes including protein kinases, protein phosphatases, ion channels, Ca²⁺ pumps, nitric oxide synthase, inositol triphosphate kinase, and cyclic nucleotide phosphodiesterase (2,3). Since calmodulin binds Ca²⁺ in a cooperative fashion, small changes in cytosolic Ca²⁺ levels lead to large changes in the level of active calmodulin and its target proteins (4).

Background References

1. Persechini, A. et al. (1989) *Trends Neurosci* 12, 462-7.
2. Finn, B.E. et al. (1995) *Nat Struct Biol* 2, 777-83.
3. Agell, N. et al. (2002) *Cell Signal* 14, 649-54.
4. Porter, J.A. et al. (1993) *Science* 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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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