

#4686 Store at -20C

Chronophin/PDXP (C85E3) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Hm Mk B	Endogenous	31	Rabbit IgG	#Q96GD0	57026

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	Chronophin/PDXP (C85E3) Rabbit mAb detects endogenous levels of total chronophin/PDXP protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with recombinant mouse MBP-chronophin.	
Background	Cofilin is a conserved actin-severing protein required for processes that rely on actin dynamics, including cytokinesis and cell motility (reviewed in 1). Regulation of actin dynamics requires the controlled cycling between the phosphorylated and unphosphorylated forms of cofilin (2). The severing activity of cofilin is inhibited by LIMK or TESK phosphorylation at the conserved amino-terminal Ser3 of cofilin (3,4). Slingshot (SSH) phosphatase, for which there have been three mammalian isoforms identified, dephosphorylates cofilin <i>in vivo</i> (5). Chronophin (CIN, PDXP) is a haloacid dehalogenase phosphatase that also dephosphorylates cofilin. Alteration of CIN activity through overexpression of either the wildtype or phosphatase-inactive mutant CIN interferes with actin dynamics, cell morphology and cytokinesis (6).	
Background References	<ol style="list-style-type: none"> 1. Carlier, M.F. et al. (1999) <i>J. Biol. Chem.</i> 274, 33827-33830. 2. Huang, T.Y. et al. (2006) <i>Curr. Opin. Cell Biol.</i> 18, 26-31. 3. Arber, S. et al. (1998) <i>Nature</i> 393, 805-809. 4. Toshima, J. et al. (2001) <i>J. Biol. Chem.</i> 276, 31449-31458. 5. Niwa, R. et al. (2002) <i>Cell</i> 108, 233-246. 6. Gohla, A. et al. (2005) <i>Nat. Cell Biol.</i> 7, 21-29. 	

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	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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