

**For Research Use Only. Not For Use In Diagnostic Procedures.**

Entrez-Gene ID #57026  
UniProt ID #Q96GDO

Applications W Endogenous	Species Cross-Reactivity* H, M, R, Mk, Hm, B	Molecular Wt. 31 kDa	Isotype Rabbit IgG**
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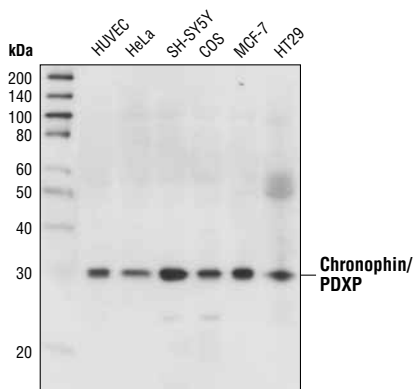
**Background:** Cofilin is a conserved actin-severing protein required for processes that rely on actin dynamics, including cytokinesis and cell motility (reviewed in 1). Regulation of actin dynamics requires the controlled cycling between the phosphorylated and unphosphorylated forms of cofilin (2). 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 *in vivo* (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).

**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 References:**

- (1) Carlier, M.F. et al. (1999) *J. Biol. Chem.* 274, 33827–33830.
- (2) Huang, T.Y. et al. (2006) *Curr. Opin. Cell Biol.* 18, 26–31.
- (3) Arber, S. et al. (1998) *Nature* 393, 805–809.
- (4) Toshima, J. et al. (2001) *J. Biol. Chem.* 276, 31449–31458.
- (5) Niwa, R. et al. (2002) *Cell* 108, 233–246.
- (6) Gohla, A. et al. (2005) *Nat. Cell Biol.* 7, 21–29.



Western blot analysis of extracts from various cell types using Chronophin/PDXP (C85E3) Rabbit mAb.

**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  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting 1:1000

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, .1% Tween<sup>®</sup>20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.