

#3639 Store at -20°C

PRC1 Antibody


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3 Trask Lane | Danvers | Massachusetts | 01923 | USA
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Applications: WB	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 70	Source: Rabbit	UniProt ID: #O43663	Entrez-Gene Id: 9055
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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	PRC1 Antibody recognizes endogenous levels of total PRC1 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly522 of human PRC1 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Protein Regulator of Cytokinesis 1 (PRC1) is a member of the MAP65/ASE1 family of nonmotor microtubule-associated proteins, first described in budding yeast (1,2). PRC1 is a substrate of CDK1, which maintains PRC1 in an inactive, monomeric state (2). Cell-cycle dependent degradation of CDK1 leads to dephosphorylation of PRC1 and subsequent KIF4-mediated translocation to the plus ends of microtubules, where it promotes microtubule bundling by cross-linking antiparallel microtubules (3-5). The microtubule bundling functions of PRC1 play a critical role in maintaining structural integrity of the spindle midzone during cytokinesis (3,6,7).	
Background References	1. Pellman, D. et al. (1995) <i>J Cell Biol</i> 130, 1373-85. 2. Jiang, W. et al. (1998) <i>Mol Cell</i> 2, 877-85. 3. Kurasawa, Y. et al. (2004) <i>EMBO J</i> 23, 3237-48. 4. Zhu, C. and Jiang, W. (2005) <i>Proc Natl Acad Sci USA</i> 102, 343-8. 5. Subramanian, R. et al. (2010) <i>Cell</i> 142, 433-43. 6. Mollinari, C. et al. (2002) <i>J Cell Biol</i> 157, 1175-86. 7. Zhu, C. et al. (2006) <i>Proc Natl Acad Sci USA</i> 103, 6196-201.	

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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