

#2830
Store at -20°C

Bmi1 Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	41, 43	Rabbit	#P35226	648

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	Bmi1 Antibody detects endogenous levels of total Bmi1 protein.	
Species predicted to react based on 100% sequence homology:	Bovine	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminus of the human Bmi1 protein. Antibodies are purified by peptide affinity chromatography.	
Background	<p>The polycomb group (PcG) of proteins contributes to the maintenance of cell identity, stem cell self-renewal, cell cycle regulation, and oncogenesis by maintaining the silenced state of genes that promote cell lineage specification, cell death, and cell-cycle arrest (1-4). PcG proteins exist in two complexes that cooperate to maintain long-term gene silencing through epigenetic chromatin modifications. The first complex, EED-EZH2, is recruited to genes by DNA-binding transcription factors and methylates histone H3 on Lys27. This histone methyl-transferase activity requires the Ezh2, Eed, and Suz12 subunits of the complex (5). Histone H3 methylation at Lys27 facilitates the recruitment of the second complex, PRC1, which ubiquitinylates histone H2A on Lys119 (6). Bmi1 is a component of the PRC1 complex, which together with Ring1 strongly enhances the E3 ubiquitin ligase activity of the Ring2 catalytic subunit (7). Bmi1 plays an important role in the regulation of cell proliferation and senescence through repression of the p16 INK4A and p19 ARF genes and is required for maintenance of adult hematopoietic and neural stem cells (3,4,8-10).</p>	
Background References	<ol style="list-style-type: none"> Boyer, L.A. et al. (2006) <i>Nature</i> 441, 349-53. Lee, T.I. et al. (2006) <i>Cell</i> 125, 301-13. Park, I.K. et al. (2003) <i>Nature</i> 423, 302-5. Molofsky, A.V. et al. (2003) <i>Nature</i> 425, 962-7. Cao, R. and Zhang, Y. (2004) <i>Mol Cell</i> 15, 57-67. Wang, H. et al. (2004) <i>Nature</i> 431, 873-8. Cao, R. et al. (2005) <i>Mol Cell</i> 20, 845-54. Molofsky, A.V. et al. (2005) <i>Genes Dev</i> 19, 1432-7. Jacobs, J.J. et al. (1999) <i>Nature</i> 397, 164-8. Jacobs, J.J. et al. (1999) <i>Genes Dev</i> 13, 2678-90. 	

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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