

#2820 Store at -20C

Ring1A Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	54	Rabbit	#Q06587	6015

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	Ring1A Antibody detects endogenous levels of total Ring1A protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to human Ring1A. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Ring1A plays a role in polycomb group (PcG) protein function. PcG proteins are critically involved in transcriptional repression of Hox genes during development (1,2). PcG proteins form two distinct complexes: EED-EZH2 and the PRC complex, which is composed of at least Bmi1 and Ring1A/Ring1B. The EZH2-containing complex is responsible for the methylation of H3K27, and the PRC complex ubiquitylates H2A. EZH2 methylation is required prior to PRC ubiquitylation, and both are essential for Hox gene repression (1). It has recently been shown that PcG proteins silence a group of developmentally important regulator genes, referred to as bivalent genes (3). This regulation may be responsible for the ability of stem cells to self renew or switch to differentiate into multipotent progenitors. Aberrant epigenetic silencing by PcG proteins is also thought to be important in tumorigenesis (4).	
Background References	<ol style="list-style-type: none"> 1. Cao, R. et al. (2005) <i>Mol Cell</i> 20, 845-54. 2. Otte, A.P. and Kwaks, T.H. (2003) <i>Curr Opin Genet Dev</i> 13, 448-54. 3. Stock, J.K. et al. (2007) <i>Nat Cell Biol</i> 9, 1428-35. 4. Sparmann, A. and van Lohuizen, M. (2006) <i>Nat Rev Cancer</i> 6, 846-56. 	

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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