

Ring1A Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk	58 kDa	Rabbit**

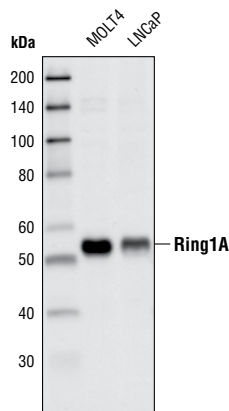
Background: Ring1A plays a role in Polycomb-group protein function. Polycomb-group (PcG) proteins form two distinct complexes that are critically involved in transcriptional repression of Hox genes during development (1,2). These complexes are (a) EED-EZH2 and (b) the PRC complex, which is comprised of at least Bmi-1 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 (3). It has recently been shown that PcG proteins silence a group of developmentally important regulator genes, referred to as bivalent genes (4). 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 (5).

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 References:

- (1) Cao, R. et al. (2005) *Mol Cell* 20, 845–54.
- (2) Otte, A.P. and Kwaks, T.H. (2003) *Curr Opin Genet Dev* 13, 448–54.
- (3) Cao, R. et al. (2005) *Mol Cell* 20, 845–54.
- (4) Stock, J.K. et al. (2007) *Nat Cell Biol* 9, 1428–35.
- (5) Spemann, A. and van Lohuizen, M. (2006) *Nat Rev Cancer* 6, 846–56.



Western blot analysis of extracts of MOLTA and LNCaP cells using Ring1A Antibody.

Entrez-Gene ID #6015
Swiss-Prot Acc. #Q06587

Storage: Supplied in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°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.cellsignaling.com.

Please visit www.cellsignaling.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, 0.1% Tween-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.