



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#2820

Ring1A Antibody

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

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

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

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. Stock, J.K. et al. (2007) *Nat Cell Biol* 9, 1428-35.
4. Spemann, A. and van Lohuizen, M. (2006) *Nat Rev Cancer* 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

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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