RING1B (N-32): sc-101109

**BACKGROUND**

Polycomb group (PcG) proteins form multiprotein complexes that regulate expression patterns of developmental and cell proliferation genes. RING1B (E3 ubiquitin-protein ligase RING2), also known as RING2, RING finger protein BAP1, Dint protein or HIF2-interacting protein 3, is a PcG protein involved in protein degradation and ubiquitination pathways. As an E3 ubiquitin-protein ligase that mediates monoubiquitination of Histone H2A, RING1B is an essential component of the chromatin-associated class II PcG repressive complex 1 (PRC1/hPRC-H), a complex that represses transcription of many genes throughout development. RING1B contains one RING-type zinc finger domain that interacts with Huntington interacting protein 2 (HIP2) within the PRC1 complex during E3 ubiquitin ligase activity. Subcellularly localized in the nucleus, RING1B may be involved in random and imprinted inactivation of the X chromosome in female mammals. Underexpression of RING1B in mice cause axial skeletal abnormalities and reduced expression of some HOX genes, while mice completely lacking RING1B exhibit gastrulation arrest.

**CHROMOSOMAL LOCATION**

Genetic locus: RNF2 (human) mapping to 1q25.3; Rnf2 (mouse) mapping to 1 G2.

**SOURCE**

RING1B (N-32) is a mouse monoclonal antibody raised against recombinant RING1B of human origin.

**PRODUCT**

Each vial contains 100 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

RING1B (N-32) is recommended for detection of RING1B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:200, dilution range 1:30-1:3000).

Suitable for use as control antibody for RING1B siRNA (h): sc-62946, RING1B siRNA (m): sc-62947, RING1B shRNA Plasmid (h): sc-62946-SH, RING1B shRNA Plasmid (m): sc-62947-SH, RING1B shRNA (h) Lentiviral Particles: sc-62946-V and RING1B shRNA (m) Lentiviral Particles: sc-62947-V.

Molecular Weight of RING1B: 37 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, FHs 173We cell lysate: sc-2417 or C3H/10T1/2 cell lysate: sc-3801.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

1. Qian, T., et al. 2010. Id1 enhances RING1B E3 ubiquitin ligase activity through the Mel-18/Bmi-1 polycomb group complex. Oncogene 29: 5818-5827.

**SELECT PRODUCT CITATIONS**

For research use only, not for use in diagnostic procedures.

**RESEARCH USE**

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