

# RING1 (H-110): sc-28736

## BACKGROUND

In *Drosophila*, the Polycomb (PcG) gene family encodes chromatin proteins that are required for the repression of homeotic loci during embryonic development. The human PcG homologues form two distinct multimeric protein complexes, the EED/EZH protein complex and the HPC/HPH protein complex, which have mutually exclusive expression patterns. The HPC/HPH PcG complex contains the human polycomb 2 (HPC2), human polyhomeotic (HPH), Bmi-1 and RING1 proteins. The human RING1 gene, which is proximal to the major histocompatibility complex region on chromosome six, encodes for a protein that contains a RING finger motif, a zinc-binding domain found in many regulatory proteins, but unlike the other human PcG genes, RING1 displays no homology to known *Drosophila* PcG genes. RING1 strongly represses *En-2*, the mammalian homolog of the *Drosophila* engrailed gene, and when over-expressed, it mediates an increase in the expression of proto-oncogenes, such as *c-Jun* and *c-Fos*. Also, loss of RING1 and Bmi-1 expression correlates with the differentiation of B cells, which suggests a role for RING1 in germinal center development.

## CHROMOSOMAL LOCATION

Genetic locus: RING1 (human) mapping to 6p21.32; Ring1 (mouse) mapping to 17 B1.

## SOURCE

RING1 (H-110) is a rabbit polyclonal antibody raised against amino acids 121-230 mapping within an internal region of RING1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28736 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

RING1 (H-110) is recommended for detection of RING1 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RING1 siRNA (h): sc-38197, RING1 siRNA (m): sc-38198, RING1 shRNA Plasmid (h): sc-38197-SH, RING1 shRNA Plasmid (m): sc-38198-SH, RING1 shRNA (h) Lentiviral Particles: sc-38197-V and RING1 shRNA (m) Lentiviral Particles: sc-38198-V.

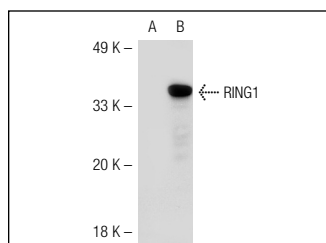
RING1 (H-110) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: RING1 (m): 293T Lysate: sc-123204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



RING1 (H-110): sc-28736. Western blot analysis of RING1 expression in non-transfected: sc-117752 (A) and mouse RING1 transfected: sc-123204 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Jacob, E., et al. 2008. Unconventional association of the polycomb group proteins with cytokine genes in differentiated T helper cells. *J. Biol. Chem.* 283: 13471-13481.
- Sustacková, G., et al. 2012. Acetylation-dependent nuclear arrangement and recruitment of BMI1 protein to UV-damaged chromatin. *J. Cell. Physiol.* 227: 1838-1850.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **RING1 (8C12F4): sc-517221**, our highly recommended monoclonal alternative to RING1 (H-110).