

# PCGF6 (E-15): sc-160649

## BACKGROUND

Polycomb group (PcG) proteins form multiprotein complexes that regulate expression patterns of developmental and cell proliferation genes. Several members of the PcG contain ring finger domains and are identified as a subclass of RING finger proteins. The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain the RING-type zinc finger conserved domain are generally involved in the ubiquitination pathway of protein degradation. PCGF6 (polycomb group ring finger 6), also known as MBLR or RNF134, is a 350 amino acid nuclear protein that is ubiquitously expressed and contains one RING-type zinc finger. PCGF6 acts as a transcriptional repressor and regulates the level of histone H3K4Me3 by activating SmcY histone demethylase. PCGF6 exists as two alternatively spliced isoforms.

## REFERENCES

1. Kanno, M., et al. 1995. Mel-18, a Polycomb group-related mammalian gene, encodes a transcriptional negative regulator with tumor suppressive activity. *EMBO J.* 14: 5672-5678.
2. Satijn, D.P., et al. 1997. RING1 is associated with the polycomb group protein complex and acts as a transcriptional repressor. *Mol. Cell. Biol.* 17: 4105-4113.
3. Joazeiro, C.A. and Weissman, A.M. 2000. RING finger proteins: mediators of ubiquitin ligase activity. *Cell* 102: 549-552.
4. Akasaka, T., et al. 2002. MBLR, a new RING finger protein resembling mammalian Polycomb gene products, is regulated by cell cycle-dependent phosphorylation. *Genes Cells* 7: 835-850.
5. Tuckfield, A., et al. 2002. Binding of the RING polycomb proteins to specific target genes in complex with the grainyhead-like family of developmental transcription factors. *Mol. Cell. Biol.* 22: 1936-1946.
6. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607816. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: PCGF6 (human) mapping to 10q24.33; Pcgf6 (mouse) mapping to 19 C3.

## SOURCE

PCGF6 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PCGF6 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.

Blocking peptide available for competition studies, sc-160649 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

PCGF6 (E-15) is recommended for detection of PCGF6 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with PCGF1, PCGF3 or PCGF5.

Suitable for use as control antibody for PCGF6 siRNA (h): sc-90663, PCGF6 siRNA (m): sc-152109, PCGF6 shRNA Plasmid (h): sc-90663-SH, PCGF6 shRNA Plasmid (m): sc-152109-SH, PCGF6 shRNA (h) Lentiviral Particles: sc-90663-V and PCGF6 shRNA (m) Lentiviral Particles: sc-152109-V.

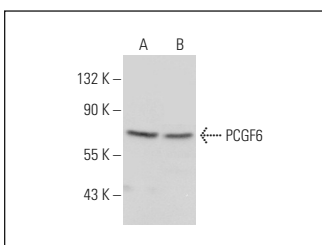
Molecular Weight of PCGF6: 39 kDa.

Positive Controls: mouse testis extract: sc-2405 or F9 cell lysate: sc-2245.

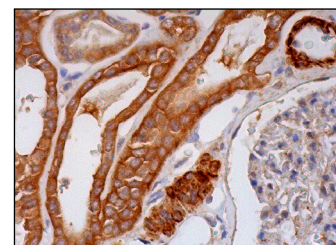
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



PCGF6 (E-15): sc-160649. Western blot analysis of PCGF6 expression in mouse testis tissue extract (A) and F9 whole cell lysate (B).



PCGF6 (E-15): sc-160649. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules and smooth muscle cells.

## STORAGE

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

## RESEARCH USE

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