

PCGF6 (A-6): sc-518220

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., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: PCGF6 (human) mapping to 10q24.33.

SOURCE

PCGF6 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 55-77 of PCGF6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PCGF6 (A-6) is available conjugated to agarose (sc-518220 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518220 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518220 PE), fluorescein (sc-518220 FITC), Alexa Fluor® 488 (sc-518220 AF488), Alexa Fluor® 546 (sc-518220 AF546), Alexa Fluor® 594 (sc-518220 AF594) or Alexa Fluor® 647 (sc-518220 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518220 AF680) or Alexa Fluor® 790 (sc-518220 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PCGF6 (A-6) is recommended for detection of PCGF6 of human origin by Western Blotting (starting dilution 1:100, 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 PCGF6 siRNA (h): sc-90663, PCGF6 shRNA Plasmid (h): sc-90663-SH and PCGF6 shRNA (h) Lentiviral Particles: sc-90663-V.

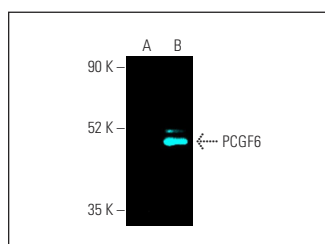
Molecular Weight of PCGF6: 39 kDa.

Positive Controls: PCGF6 (h): 293T Lysate: sc-112270.

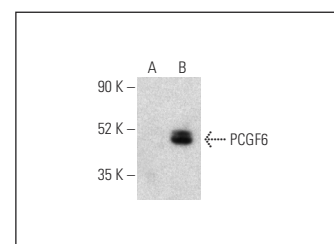
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PCGF6 (A-6): sc-518220. Fluorescent western blot analysis of PCGF6 expression in non-transfected: sc-117752 (A) and human PCGF6 transfected: sc-112270 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 647: sc-533664.



PCGF6 (A-6): sc-518220. Western blot analysis of PCGF6 expression in non-transfected: sc-117752 (A) and human PCGF6 transfected: sc-112270 (B) 293T whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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