

SCML2 (M-265): sc-98412

BACKGROUND

In *Drosophila*, the Polycomb (PcG) gene family encodes chromatin proteins that are required for the repression of homeotic loci in embryonic development. PcG proteins work in conjunction with the trithorax-group (trxG), which activate homeobox gene expression during embryonic development. SCM (sex comb on midleg) is an important *Drosophila* PcG protein involved in transcriptional repression. SCML2 (sex comb on midleg-like 2) is a human homolog of this *Drosophila* protein. SCML2 is a ubiquitously expressed protein with predominant expression in placenta, testis and thymus. Upon DNA damage, SCML2 may be phosphorylated by ATR or ATM. Due to alternative splicing, two isoforms exist for this protein.

REFERENCES

1. Montini, E., Buchner, G., Spalluto, C. Andolfi, G., Caruso, A., den Dunnen, J.T., Trump, D., Rocchi, M., Ballabio, A. and Franco, B. 1999. Identification of SCML2, a second human gene homologous to the *Drosophila* sex comb on midleg (SCM): a new gene cluster on Xp22. *Genomics* 58: 65-72.
2. Tomotsune, D., Takihara, Y., Berger, J., Duhl, D., Joo, S., Kyba, M., Shirai, M., Ohta, H., Matsuda, Y., Honda, B.M., Simon, J., Shimada, K., Brock, H.W. and Randazzo, F. 2000. A novel member of murine Polycomb-group proteins, Sex comb on midleg homolog protein, is highly conserved, and interacts with RAE28/mph1 *in vitro*. *Differentiation* 65: 229-239.

CHROMOSOMAL LOCATION

Genetic locus: Scml2 (mouse) mapping to X F4.

SOURCE

SCML2 (M-265) is a rabbit polyclonal antibody raised against amino acids 561-825 mapping at the C-terminus of SCML2 of mouse origin.

PRODUCT

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

APPLICATIONS

SCML2 (M-265) is recommended for detection of SCML2 of mouse and rat 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 SCML2 siRNA (m): sc-153261, SCML2 shRNA Plasmid (m): sc-153261-SH and SCML2 shRNA (m) Lentiviral Particles: sc-153261-V.

Molecular Weight of human SCML2: 77 kDa.

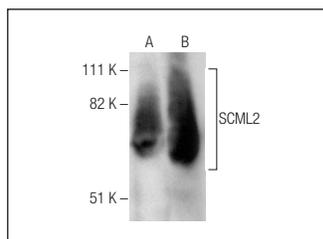
Molecular Weight of mouse SCML2: 93 kDa.

Positive Controls: rat testis extract: sc-2400, rat lung extract: sc-2396 or NIH/3T3 whole cell lysate: sc-2210.

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



SCML2 (M-265): sc-98412. Western blot analysis of SCML2 expression in rat testis (A) and rat lung (B) tissue extracts.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **SCML2 (F-7): sc-271097** or **SCML2 (E-12): sc-271096**, our highly recommended monoclonal alternatives to SCML2 (M-265).