

# SFMBT1 (N-14): sc-99627

## BACKGROUND

SFMBT1 (Scm-like with four MBT domains protein 1), also known as renal ubiquitous protein 1 (RU1), is a 866 amino acid protein with high sequence similarity to the *Drosophila* Scm protein. *Drosophila* Scm is a transcriptional repressor essential for *Drosophila* development. SFMBT1 is expressed in all cell lines and normal tissues, including the thymus and localizes to the nucleus. SFMBT1 contains four MBT repeats and one SAM (sterile  $\alpha$  motif) domain. The MBT motif has been identified as a key domain capable of methyl-lysine histone recognition. Considered a polycomb protein, SFMBT1 strongly associates with chromatin and may function as a transcriptional repressor. Two isoforms exist due to alternative splicing events.

## REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607319. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Bocconi, P., MacGrogan, D., Scandura, J.M. and Nimer, S.D. 2003. The human L(3)MBT polycomb group protein is a transcriptional repressor and interacts physically and functionally with TEL (ETV6). *J. Biol. Chem.* 278: 15412-15420.
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5. Wu, S., Trievel, R.C. and Rice, J.C. 2007. Human SFMBT is a transcriptional repressor protein that selectively binds the N-terminal tail of Histone H3. *FEBS Lett.* 581: 3289-3296.
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## CHROMOSOMAL LOCATION

Genetic locus: SFMBT1 (human) mapping to 3p21.1; Sfmbt1 (mouse) mapping to 14 B.

## SOURCE

SFMBT1 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of SFMBT1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99627 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SFMBT1 (N-14) is recommended for detection of SFMBT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with SFMBT2.

SFMBT1 (N-14) is also recommended for detection of SFMBT1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for SFMBT1 siRNA (h): sc-78271, SFMBT1 siRNA (m): sc-153397, SFMBT1 shRNA Plasmid (h): sc-78271-SH, SFMBT1 shRNA Plasmid (m): sc-153397-SH, SFMBT1 shRNA (h) Lentiviral Particles: sc-78271-V and SFMBT1 shRNA (m) Lentiviral Particles: sc-153397-V.

Molecular Weight of SFMBT1: 98 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **SFMBT1 (FT-34): sc-135559**, our highly recommended monoclonal alternative to SFMBT1 (N-14).