



L3MBTL (h): 293T Lysate: sc-115550

BACKGROUND

L3MBTL is member of the Polycomb group of proteins that function as transcriptional repressors in large protein complexes. L3MBTL contains 3 repeats of 100 residues called MBT repeats, and a C-terminal α -helical structure within a cavity lined by aromatic amino acids. The protein undergoes monoallelic methylation in hematopoietic tissues and is expressed in most human adult normal tissues. During interphase, L3MBTL localizes to the nucleus and completely associates with condensed chromosomes in mitotic cells. Together with Trithorax group proteins, L3MBTL is responsible for the coordinated regulation of patterns of gene activity. The human L3MBTL gene lies in a region of chromosome 20q13.12 that is frequently deleted in patients with myeloid malignancies and has been proposed as a candidate 20q tumor suppressor gene, implicating L3MBTL expression in some cases of myeloid leukemia.

REFERENCES

1. Koga, H., et al. 1999. A human homolog of *Drosophila* lethal(3)malignant brain tumor (L3MBT) protein associates with condensed mitotic chromosomes. *Oncogene* 18: 3799-3809.
2. Boccuni, P., et al. 2003. The human L3MBT interacts physically and functionally with TEL (ETV6). *J. Biol. Chem.* 278: 15412-15420.
3. Sathiyamurthy, A., et al. 2003. Crystal structure of the malignant brain tumor (MBT) repeats in sex comb on Midleg-like 2 (SCML2). *J. Biol. Chem.* 278: 46968-46973.
4. Wang, W.K., et al. 2003. Malignant brain tumor repeats: a three-leaved propeller architecture with ligand/peptide binding pockets. *Structure* 11: 775-789.
5. Yohn, C.B., et al. 2003. l(3)malignant brain tumor and three novel genes are required for *Drosophila* germ-cell formation. *Genetics* 165: 1889-1900.
6. Bench, A.J., et al. 2004. Characterization of the imprinted polycomb gene L3MBTL, a candidate 20q tumour suppressor gene, in patients with myeloid malignancies. *Br. J. Haematol.* 127: 509-518.
7. Li, J., et al. 2004. Imprinting of the human L3MBTL gene, a polycomb family member located in a region of chromosome 20 deleted in human myeloid malignancies. *Proc. Natl. Acad. Sci. USA* 101: 7341-7346.
8. MacGrogan, D., et al. 2004. Structural integrity and expression of the L3MBTL gene in normal and malignant hematopoietic cells. *Genes Chromosomes Cancer* 41: 203-213.

CHROMOSOMAL LOCATION

Genetic locus: L3MBTL1 (human) mapping to 20q13.12.

PRODUCT

L3MBTL (h): 293T Lysate represents a lysate of human L3MBTL transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

L3MBTL (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive L3MBTL antibodies. Recommended use: 10-20 μ l per lane.

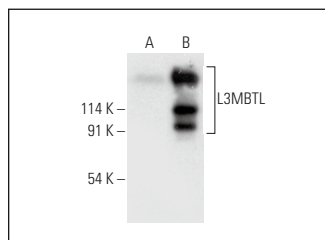
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

L3MBTL (D-9): sc-166905 is recommended as a positive control antibody for Western Blot analysis of enhanced human L3MBTL expression in L3MBTL transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

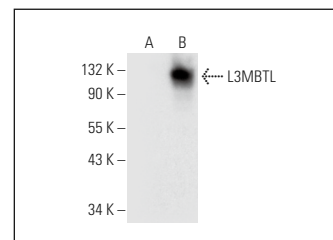
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



L3MBTL (D-9): sc-166905. Western blot analysis of L3MBTL expression in non-transfected: sc-117752 (A) and human L3MBTL transfected: sc-115550 (B) 293T whole cell lysates.



L3MBTL (D-10): sc-398603. Western blot analysis of L3MBTL expression in non-transfected: sc-117752 (A) and human L3MBTL transfected: sc-115550 (B) 293T whole cell lysates.

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.