SANTA CRUZ BIOTECHNOLOGY, INC.

L3MBTL (H-85): sc-98449

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The Power to Question

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 20 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 (l(3)mbt) protein associates with condensed mitotic chromosomes. Oncogene 18: 3799-3809.
2. Boccuni, P., et al. 2003. The human L(3)MBT interacts physically and functionally with TEL (ETV6). J. Biol. Chem. 278: 15412-15420.
3. Sathyamurthy, 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. 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.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: L3MBTL (human) mapping to 20q13.12; L3mbtl (mouse) mapping to 2 H2.

SOURCE

L3MBTL (H-85) is a rabbit polyclonal antibody raised against amino acids 581-665 mapping near the C-terminus of L3MBTL 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.

RESEARCH USE

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

APPLICATIONS

L3MBTL (H-85) is recommended for detection of L3MBTL 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

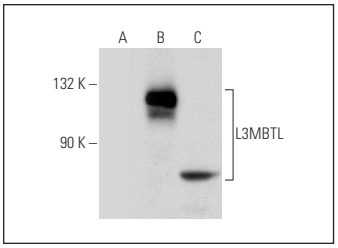
L3MBTL (H-85) is also recommended for detection of L3MBTL in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for L3MBTL siRNA (h): sc-60915, L3MBTL siRNA (m): sc-146624, L3MBTL shRNA Plasmid (h): sc-60915-SH, L3MBTL shRNA Plasmid (m): sc-146624-SH, L3MBTL shRNA (h) Lentiviral Particles: sc-60915-V and L3MBTL shRNA (m) Lentiviral Particles: sc-146624-V.

Molecular Weight of L3MBTL: 86 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, L3MBTL (h): 293T Lysate: sc-115550 or KNRK nuclear extract: sc-2141.

DATA



L3MBTL (H-85): sc-98449. Western blot analysis of L3MBTL expression in non-transfected: sc-117752 (**A**) and human L3MBTL transfected: sc-115550 (**B**) 293T whole cell lysates and KNRK nuclear extract (**C**).

STORAGE

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

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **L3MBTL (D-9): sc-166905** or **L3MBTL (D-10): sc-398603**, our highly recommended monoclonal alternatives to L3MBTL (H-85).