

L3MBTL3 (F-9): sc-518224

BACKGROUND

Polycomb group (PcG) proteins are important for maintaining the transcriptionally repressed state of target genes and are thought to function via chromatin modification. PcG proteins assemble into multimeric protein complexes, which are involved in maintaining the transcriptional repressive state of genes over successive cell generations. PcG proteins are also required for normal maturation of myeloid progenitor cells. A putative PcG protein, L3MBTL3 (lethal(3)malignant brain tumor-like protein 3), also known as MBT-1 or KIAA1798, is a 780 amino acid protein containing three MBT repeats and one SAM (sterile α motif) domain. Localized to the nucleus, L3MBTL3 interacts with RING1B, another PcG protein that may be involved in the specification of anterior-posterior axis and cell proliferation in early development. L3MBTL3 exists as two isoforms produced by alternative splicing events.

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. Lee, S.J., et al. 2001. E3 ligase activity of RING finger proteins that interact with Hip-2, a human ubiquitin-conjugating enzyme. *FEBS Lett.* 503: 61-64.
3. Wismar, J. 2001. Molecular characterization of h-l(3)mbt-like: a new member of the human mbt family. *FEBS Lett.* 507: 119-121.
4. 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.
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. Boccuni, P., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: L3MBTL3 (human) mapping to 6q23.1.

SOURCE

L3MBTL3 (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 166-189 of L3MBTL3 of human origin.

PRODUCT

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

L3MBTL3 (F-9) is available conjugated to agarose (sc-518224 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518224 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518224 PE), fluorescein (sc-518224 FITC), Alexa Fluor® 488 (sc-518224 AF488), Alexa Fluor® 546 (sc-518224 AF546), Alexa Fluor® 594 (sc-518224 AF594) or Alexa Fluor® 647 (sc-518224 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518224 AF680) or Alexa Fluor® 790 (sc-518224 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

L3MBTL3 (F-9) is recommended for detection of L3MBTL3 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 L3MBTL3 siRNA (h): sc-95210, L3MBTL3 shRNA Plasmid (h): sc-95210-SH and L3MBTL3 shRNA (h) Lentiviral Particles: sc-95210-V.

Molecular Weight of L3MBTL3 isoforms 1/2: 88/86 kDa.

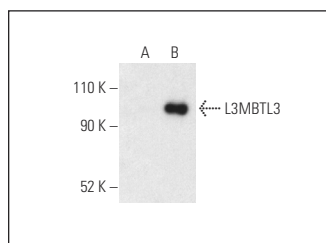
Positive Controls: L3MBTL3 (h2): 293T Lysate: sc-372869.

RECOMMENDED SUPPORT REAGENTS

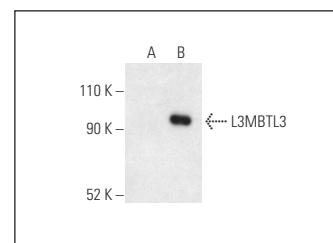
To ensure optimal results, the following support reagents are recommended:

- 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.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



L3MBTL3 (F-9): sc-518224. Western blot analysis of L3MBTL3 expression in non-transfected: sc-117752 (A) and human L3MBTL3 transfected: sc-372869 (B) 293T whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.



L3MBTL3 (F-9): sc-518224. Western blot analysis of L3MBTL3 expression in non-transfected: sc-117752 (A) and human L3MBTL3 transfected: sc-372869 (B) 293T whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-525409.

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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