SANTA CRUZ BIOTECHNOLOGY, INC.

L3MBTL2 (F-3): sc-365134

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The Power to Question

BACKGROUND

Polycomb group (PcG) proteins are important for maintaining the transcriptionally repressed state of target genes and are thought to function via chromatin modification. L3MBTL2 (Lethal(3)malignant brain tumor-like 2 protein), also known as L3MBT or H-l(3)mbt-l, is a 705 amino acid member of the PcG family. Localized to the nucleus, L3MBTL2 associates with chromatin-remodeling complexes and helps inhibit the expression of proteins that trigger the cell to enter mitosis. During the G_0 phase of the cell cycle, L3MBTL2 is part of a complex that contains other proteins (such as HP1γ, E2F-6 and Max) that participate in transcriptional repression. L3MBTL2 contains one FCS-type zinc finger and four MBT repeats and is expressed as three isoforms due to alternative splicing events.

REFERENCES

1. Dunham, I., et al. 1999. The DNA sequence of human chromosome 22. Nature 402: 489-495.
2. Wismar, J. 2001. Molecular characterization of h-l(3)mbt-like: a new member of the human mbt family. FEBS Lett. 507: 119-121.
3. Ogawa, H., et al. 2002. A complex with chromatin modifiers that occupies E2F- and Myc-responsive genes in G_0 cells. Science 296: 1132-1136.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611865. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Markus, J., et al. 2003. Proliferation-linked expression of the novel murine gene m4mbt encoding a nuclear zinc finger protein with four mbt domains. Gene 319: 117-126.
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: L3MBTL2 (human) mapping to 22q13.2; L3mbtl2 (mouse) mapping to 15 E1.

SOURCE

L3MBTL2 (F-3) is a mouse monoclonal antibody raised against amino acids 141-193 mapping within an internal region of L3MBTL2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

L3MBTL2 (F-3) is available conjugated to agarose (sc-365134 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365134 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365134 PE), fluorescein (sc-365134 FITC), Alexa Fluor® 488 (sc-365134 AF488), Alexa Fluor® 546 (sc-365134 AF546), Alexa Fluor® 594 (sc-365134 AF594) or Alexa Fluor® 647 (sc-365134 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365134 AF680) or Alexa Fluor® 790 (sc-365134 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

L3MBTL2 (F-3) is recommended for detection of L3MBTL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 L3MBTL2 siRNA (h): sc-75403, L3MBTL2 siRNA (m): sc-146625, L3MBTL2 shRNA Plasmid (h): sc-75403-SH, L3MBTL2 shRNA Plasmid (m): sc-146625-SH, L3MBTL2 shRNA (h) Lentiviral Particles: sc-75403-V and L3MBTL2 shRNA (m) Lentiviral Particles: sc-146625-V.

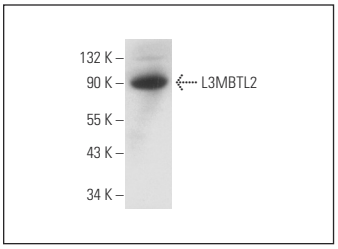
Molecular Weight of L3MBTL2 isoforms: 79/69 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



L3MBTL2 (F-3): sc-365134. Western blot analysis of L3MBTL2 expression in MOLT-4 whole cell lysate.

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.