

Diagenode sa

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Product name:
antibody directed against hL3MBTL1
(Human Lethal(3) Malignant Brain Tumor-Like protein)
Other names: L(3)mbt-like, H-l(3)mbt protein, H-L(3)MBT, L3MBTL

Catalog #: pAb-023-050	Type: Polyclonal	Size: 50 µg/ 25 µl
Lot #: 001	Source: Rabbit	Concentration: 2.0 µg/µl

Description: This antibody has been raised against the N-terminus of human L3MBTL1 protein.

L3MBTL is a Polycomb group (PcG) protein. L3MBTL1 forms a homodimer and interacts with ETV6 (see overview below).

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
ELISA	Not tested	
Dot blotting	Not tested	
Western blotting	1:1000	Fig 1
Gel Supershift	Not tested	
Immunochemistry	Not tested	
Flow cytometry	Not tested	
Immunoprecipitation	Tested	Fig 2
ChIP	Not tested	

Format: In solution in PBS including 0.05% azide and 0.05% ProClin 300. The polyclonal antibody has been protein G purified.

Storage: For long storage, store at -20°C/ -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

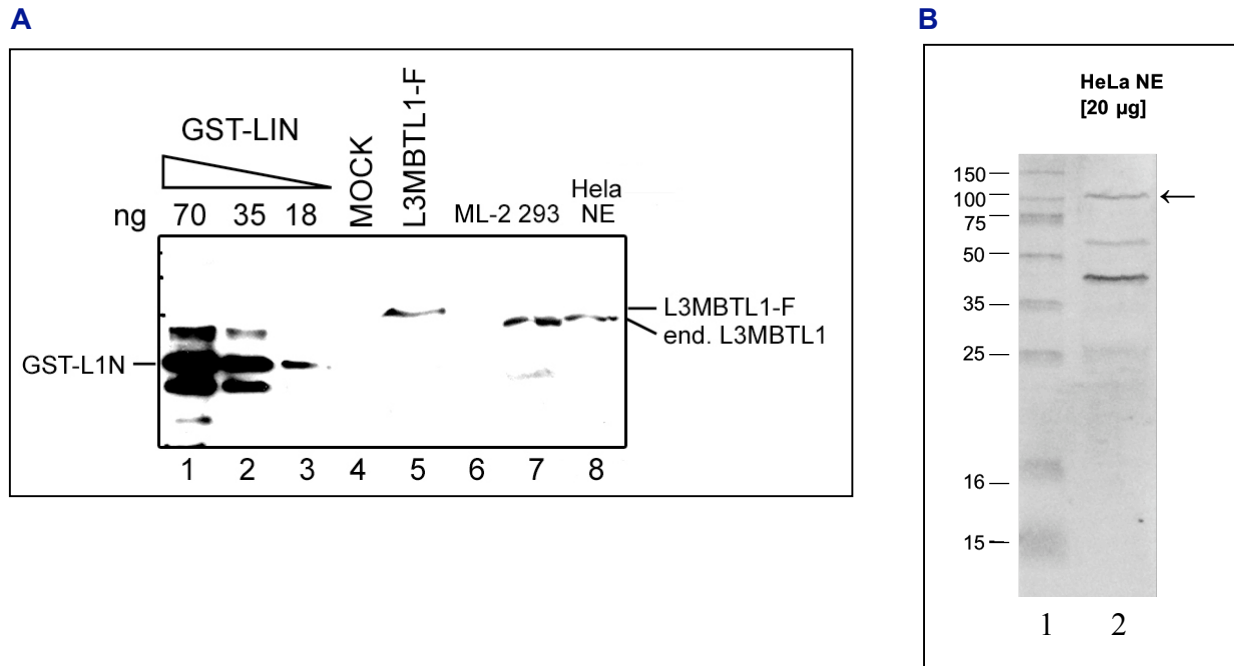
References:

[1] Bocconi P., MacGrogan D., Scandura J.M. and Nimer S.D. 2003. *J. Biol. Chem.* 278 (17): 15412-20.

Availability date: March 16, 2007. Last data sheet update: June 15, 2007

Lot #: 001/ purification day: March 13, 2007

Figure 1:

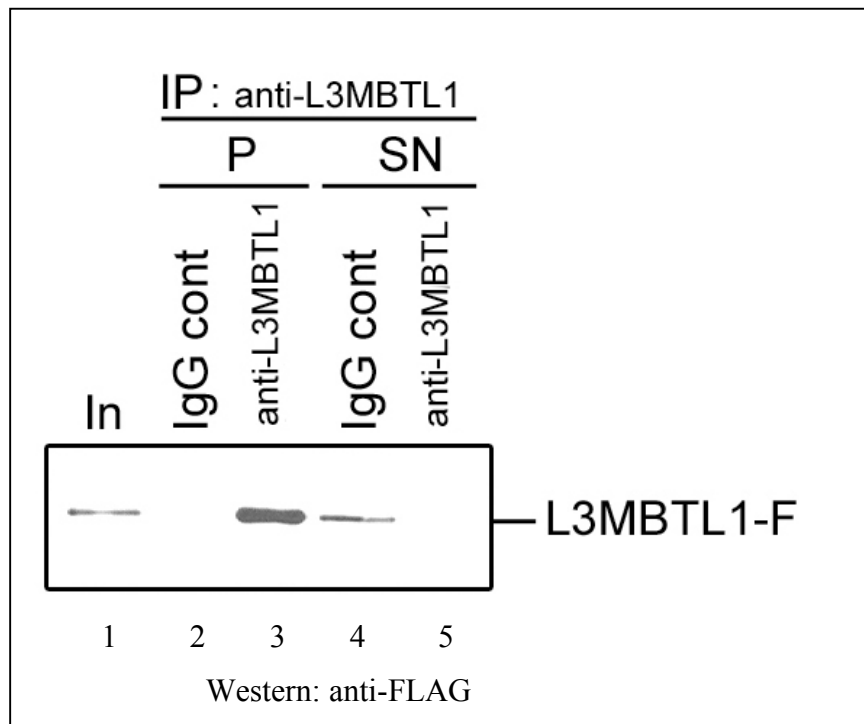


Western blot analysis using the Diagenode antibody anti-hL3MBTL1

Panel A: Western blot was performed using serum anti-hL3MBTL1 at dilution 1:1000 in TBS-Tween + 5% skimmed milk. The antibody recognizes the immunogen (GST-L1N) in the ng range (lanes 1-3). The antibody anti-L3MBTL1 also detects ectopically expressed FLAG-tagged L3MBTL1 (L3MBTL1-F) (lane 5). The antibody anti-L3MBTL1 also recognizes a protein of the correct size (approx. 100 kDa) (end. L3MBTL1: endogenous L3MBTL1) in nuclear extract from HeLa (lane 8) and HEK293 cells (lane 7), but not in ML-2 cells (lane 6). A negative control (MOCK) is shown (lane 4).

Panel B: Western blot was performed on HeLa nuclear extract (HeLa NE) using the Diagenode antibody anti-hL3MBTL1 (cat# pAb-023-050) at dilution 1:1000 in TBS-Tween + 5% skimmed milk. The antibody recognizes endogenous L3MBTL1 in HeLa nuclear extract (HeLa NE) (lane 2). The location of L3MBTL1 is indicated with an arrow. A molecular weight marker is shown in lane 1.

Figure 2:



Immunoprecipitation using the Diagenode antibody anti-hL3MBTL1

Immunoprecipitation was performed on nuclear extracts containing ectopically expressed FLAG-tagged L3MBTL1 (L3MBTL1-F) using the Diagenode antibody anti-hL3MBTL1 (Diagenode, cat# pAb-023-050) and an IgG control antibody (IgG Cont). The presence of L3MBTL1-F in the input (In; Lane 1), in the precipitated fraction (P) and in the supernatant fraction (SN) was tested by Western Blot using anti-FLAG antibody. L3MBTL1-F was efficiently precipitated by the anti-hL3MBTL1 (lane 3), since there was no L3MBTL1-F present in the supernatant (lane 5). L3MBTL1-F was not precipitated by the control antibody (IgG Cont) (lane 2) and the L3MBTL1 was still present in the supernatant (lane 4).

Overview

H-L(3)MBT, the human homolog of the *Drosophila* Lethal(3) Malignant Brain Tumor protein, is a member of the polycomb group (PcG) of proteins, which function as transcriptional regulators in large protein complexes. Homozygous mutations in the L3MBTL1 gene cause brain tumors in *Drosophila*, identifying L3MBTL1 as a tumor suppressor gene. The Human L3MBTL1 is a transcriptional repressor and interacts physically and functionally with TEL (ETV6) [1].

HL3MBTL1 probably plays a role in cell proliferation. Overexpression of this protein induces multinucleated cells, suggesting that it is required to accomplish normal mitosis (UniProtKB/Swiss-Prot entry Q9Y468: <http://www.expasy.org/uniprot/Q9Y468>).