

# Anti-Human L3MBTL4, monoclonal (clone R160.1.1C8)

**Recommended name:** Lethal(3)malignant brain tumor-like protein 4; Short name: H-I(3)mbt-like protein 4; L(3)mbt-like protein 4  
**Alternative name(s):** L3MBTL4

**Cat. No.** m13-094  
**Lot. No.** 20150112.L2E

**Quantity:** 100 µg  
**Storage:** -20 °C



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

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## Uniprot / NCBI Summary

### UniProt

Primary Accession # [Q8NA19](#)  
Secondary Accession # [Q8IXS3](#)

### NCBI

GI # [158138528](#)  
GenID [91133](#)  
Accession # [NP\\_775735.2](#)  
GenBank Nucleotide # [NM\\_173464.3](#)

**Molecular Weight** 71,122 Da (623 aa)

Putative Polycomb group (PcG) protein. PcG proteins maintain the transcriptionally repressive state of genes, probably via a modification of chromatin, rendering it heritably changed in its expressibility.

Subcellular location: Nucleus.

Sequence similarities: Contains 3 MBT repeats; Contains 1 SAM (sterile alpha motif) domain

*Continued on page 2.*

## Physical Characteristics

**Quantity:** 100 µg

**Concentration:** 1.0 mg/ml

**Host / Isotype:** mouse mouse IgG2b

**Clonality:** monoclonal; ID R160.1.1C8

**Immunogen:** recombinant protein corresponding to aa residues 1-414 of human L3MBTL4

**Purification:** affinity-chromatography using Protein G

**Formulation:** 30% glycerol, 1x PBS, 0.02% sodium azide

**Specificity:** monospecific for human L3MBTL4; see microarray analysis below

**Reactivity:** human

**Stability/Storage:** 12 months long term: -20 °C; short term: 4 °C; avoid freeze-thaw cycles; aliquot as required

**Handling Notes:** small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap.

## Tested Research Applications

**Western Immunoblotting:** tested on cells transfected with a construct encoding L3MBTL4; utility on native cells under evaluation

**Immunoprecipitation:** recommended; see below

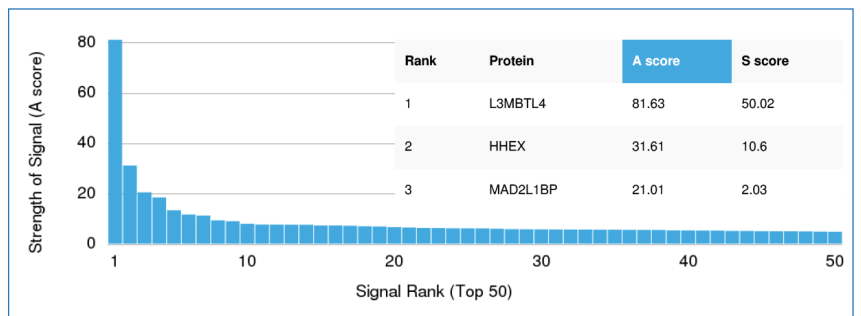
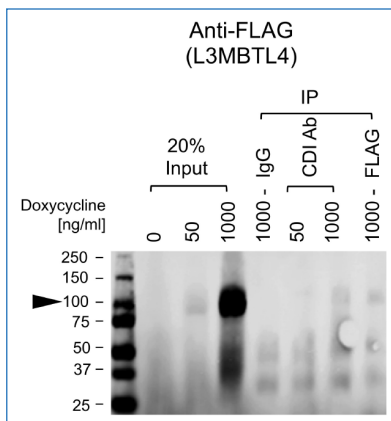
**ChIP-Seq:** recommended; see page 2

## Quality Assurance

### IP Analysis:

Tet-ON HeLa cells were transfected with construct encoding L3MBTL4 with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried

out using 5µg of either IgG, CDI mAb Anti-L3MBTL4 (cloneID# R160.1.1C8) or 1 µg of FLAG-M2. Immunoblotting was performed using rabbit Anti-FLAG (1:1000, Cell Signaling #2368).



**Specificity Analysis with HuProt™ Human Proteome Microarray:** Anti Human L3MBTL4 (clone R160.1.1C8) was analyzed using the CDI HuProt™ Human Proteome Microarray.

**For more information** on A/S scores and how they relate to specificity, see page 2.

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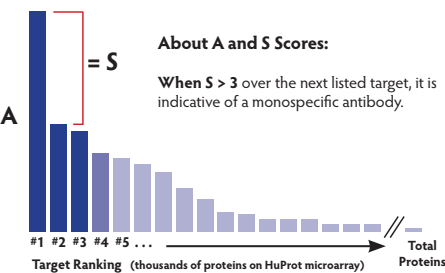
Continued from page 1.

### General Reference:

Veigaard C, Nørgaard JM, Kjeldsen E (2011) Genomic profiling in high hyperdiploid acute myeloid leukemia: a retrospective study of 19 cases. *Cancer Genet* **204**:516-21. [\[PubMed\]](#)

Knight MJ, Leettola C, Gingery M, Li H, Bowie JU (2011) A human sterile alpha motif domain polymerizome. *Protein Sci* **20**:1697-706. [\[PubMed\]](#)

Addou-Klouche L, Adélaïde J, Finetti P, Cervera N, Ferrari A, Bekhouche I, Siricoulomb F, Sotiriou C, Viens P, Moulessehou S, Bertucci F, Birnbaum D, Chaffanet M. (2010) Loss, mutation and deregulation of L3MBTL4 in breast cancers. *Mol Cancer* **9**:213. [\[PubMed\]](#)

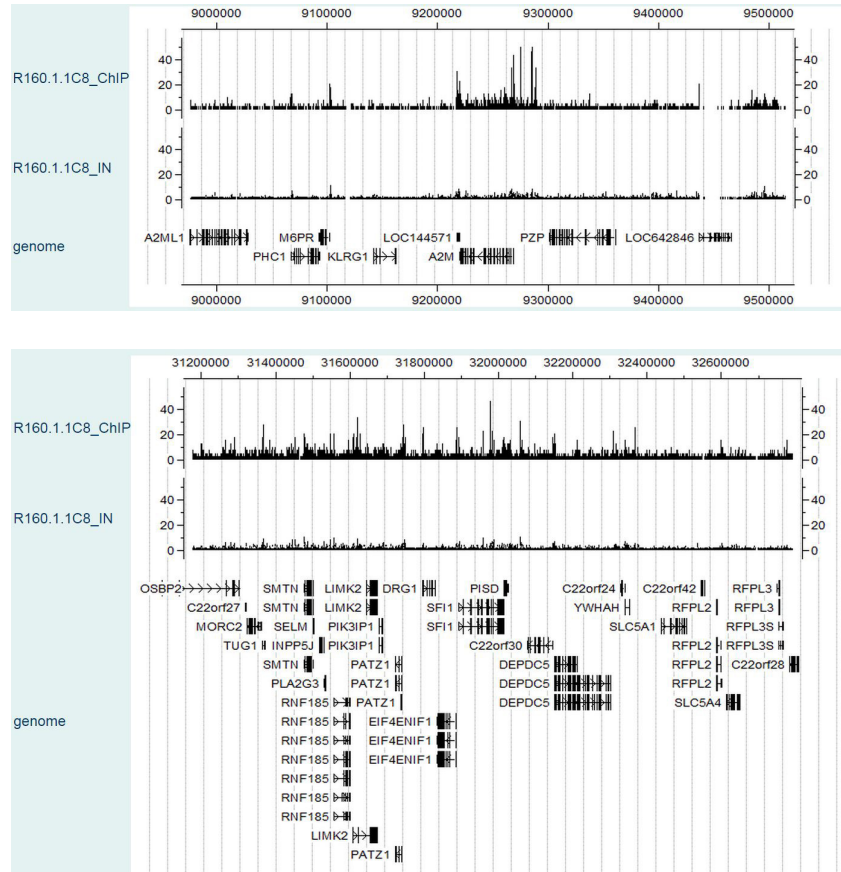


**Statistical Analysis:** Thousands of GenePix data points (from the microarray) are analyzed in terms of signal strength and ranked accordingly.

**SUMMARY:** The A-score indicates the number of standard deviations above background seen for the mean signal bound by the target antigen. The S-score represents the difference between the A-score of the target antigen and the next best hit on the array. S-scores **greater than 3 standard deviations over the next listed target** are deemed statistically significant and indicate **highly specific antibodies**. More info at [cdi-lab.com/HighSpec.html](http://cdi-lab.com/HighSpec.html)

## Tested Research Applications

### ChIP-Seq: Recommended



The ChIP was performed with chromatin from 10 million HepG2 cells and 3 µg of Anti-L3MBTL4 (cloneID #R160.1.1C8) antibody. The ChIP DNA was sequenced on an Illumina HiSeq platform and read counts were calculated at consecutive 100 bp bins across the human genome hg19. Normalized read-count levels for ChIP-seq of L3MBTL4 (R160.1.1C8\_ChIP) and control (R160.1.1C8\_IN) around the A2M and a 1,600,000 bp region (chromosome 2: 31,200,000-32,800,000) are displayed in the CisGenome browser.

The development of this antibody was supported by the National Institutes of Health Protein Capture Reagent Program under award U54HG06434 to CDI Laboratories and Johns Hopkins University.