

# LCMT1 (H-156): sc-134675

## BACKGROUND

Protein phosphatase 2A (PP2A) is a serine/threonine (Ser/Thr) phosphatase that is thought to be involved in cell growth and proliferation events and may be associated with tumor progression. The activity of PP2A is regulated by a variety of mechanisms, one of which is the reversible methylation by select methyltransferases. LCMT1 (leucine carboxyl methyltransferase 1), also known as LCMT, PPMT1 or CGI-68, is a 334 amino acid member of the methyltransferase superfamily that is involved in the regulation of PP2A. Specifically, LCMT1 catalyzes the methylation of the carboxy group on the C-terminal leucine of the PP2A catalytic subunit (designated PP2A $\alpha$ ). Via its ability to regulate PP2A function, LCMT1 may be critical for normal mitotic progression and overall cell survival. Two isoforms of LCMT1 are expressed due to alternative splicing events.

## REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610286. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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5. Lee, J.A. and Pallas, D.C. 2007. Leucine carboxyl methyltransferase-1 is necessary for normal progression through mitosis in mammalian cells. *J. Biol. Chem.* 282: 30974-30984.
6. Longin, S., Zwaenepoel, K., Martens, E., Louis, J.V., Rondelez, E., Goris, J. and Janssens, V. 2008. Spatial control of protein phosphatase 2A (de)methylation. *Exp. Cell Res.* 314: 68-81.

## CHROMOSOMAL LOCATION

Genetic locus: LCMT1 (human) mapping to 16p12.1; Lcmt1 (mouse) mapping to 7 F3.

## SOURCE

LCMT1 (H-156) is a rabbit polyclonal antibody raised against amino acids 179-334 mapping at the C-terminus of LCMT1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

LCMT1 (H-156) is recommended for detection of LCMT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

LCMT1 (H-156) is also recommended for detection of LCMT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LCMT1 siRNA (h): sc-93344, LCMT1 siRNA (m): sc-108010, LCMT1 siRNA (r): sc-156141, LCMT1 shRNA Plasmid (h): sc-93344-SH, LCMT1 shRNA Plasmid (m): sc-108010-SH, LCMT1 shRNA Plasmid (r): sc-156141-SH, LCMT1 shRNA (h) Lentiviral Particles: sc-93344-V, LCMT1 shRNA (m) Lentiviral Particles: sc-108010-V and LCMT1 shRNA (r) Lentiviral Particles: sc-156141-V.

Molecular Weight of LCMT1: 38 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or HEK293 whole cell lysate: sc-45136.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **LCMT1 (D-10): sc-365221** or **LCMT1 (4A4): sc-81609**, our highly recommended monoclonal alternatives to LCMT1 (H-156).