

Product Information

Monoclonal Anti-Leucine carboxyl methyltransferase 1 (LCMT1)

Clone 4A4

produced in mouse, purified immunoglobulin

Catalog Number **SAB4200240**

Product Description

Monoclonal Anti-Leucine carboxyl methyltransferase 1 (LCMT1) (mouse IgG1 isotype) is derived from the hybridoma 4A4 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a mouse LCMT1 (GeneID: 30949) fusion protein. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-Leucine carboxyl methyltransferase 1 (LCMT1) recognizes mouse and rat LCMT1. The antibody may be used in several immunochemical techniques including immunoblotting (~38 kDa).

Functional regulation of protein phosphatase-2A (PP2A) involves reversible methylation. In mammalian cells, Leucine carboxyl methyltransferase 1 (LCMT1), also known as PP2A methyltransferase 1 (PPMT1), is responsible for the methylation of the carboxyl group of the C-terminal leucine residue (Leu309) of the catalytic subunit of PP2A. Methylation regulates PP2A by modulating the incorporation of different B-type subunits into PP2A holoenzymes, thereby affecting subcellular targeting and substrate specificity. LCMT1 is essential for normal mitotic progression and cell survival, and for embryonic development in mice. Downregulation of LCMT1 and PP2A methylation are observed in Alzheimer's disease patients and hyperhomocysteinemic mice.¹⁻⁴

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using whole extracts of mouse 3T3 or rat brain cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Wu, J., et al., *EMBO J.*, **19**, 5672-5681 (2000).
2. Leulliot, N., et al., *J. Biol. Chem.*, **279**, 8351-8358 (2004).
3. Sontag, E., et al., *J. Neurosci.*, **27**, 2751-2759 (2008).
4. Lee, J.A. and Pallas, D.C., *J. Biol. Chem.*, **282**, 30974-30984 (2007).

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