

Product Information

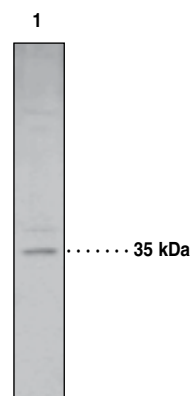


Monoacylglycerol Lipase Polyclonal Antibody

Item No. 100035 • Lot No. XXXXXX

Synonyms:	MAGL, MGL
Contents:	This vial contains <i>lot specific</i> µg peptide affinity-purified IgG in <i>lot specific</i> µl TBS, pH 7.4, containing 50% glycerol, <i>lot specific</i> mg/ml BSA, and 0.02% sodium azide
Host:	Rabbit
Antigen:	Human monoacylglycerol lipase amino acids 1-14. The antigen alignment with other known species sequences are as follows: Human MPEESSPRRTPQSI Rat MPEaSSPRRTPQnv Mouse MPEaSSPRRTPQnv Zebrafish MPEpegtRRsPQgv
Cross-reactivity:	(+) Human, mouse, rat, and bovine monoacylglycerol lipase
Storage:	≥1 year at -20°C
Applications:	Immunohistochemistry (formalin-fixed paraffin-embedded sections) and western blot (WB); recommended starting dilutions for WB - <i>lot specific</i> µg/ml; other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Endocannabinoids, such as arachidonoyl ethanolamide (AEA) and 2-Arachidonoyl glycerol (2-AG), function as short-range modulators of cell and synaptic activity. Monoacylglycerol lipase (MAGL) hydrolyzes 2-AG to terminate its biological actions¹ and works consecutively with hormone-sensitive lipase (HSL) to mobilize fatty acids from the triglyceride stores of adipocytes.² MAGL has a molecular weight of ~33 kDa and exhibits a high degree of homology among human, mouse, and rat at the amino acid level.¹⁻⁴ MAGL is expressed in a variety of tissues such as kidney, spleen, heart, liver, testis, stomach, brain, lung, and adrenal gland, with most abundant expression in skeletal muscle and adipose tissue. This suggests a role of MAGL in monoglyceride hydrolysis in diverse tissues.



Lane 1: Rat brown fat (~20 µg)

References

- Dinh, T.P., Carpenter, D., Leslie, F.M., *et al.* Brain monoglyceride lipase participating in endocannabinoid inactivation. *Proc. Natl. Acad. Sci. USA* **99**(16), 10819-10824 (2002).
- Karlsson, M., Reue, K., Xia, Y.-R., *et al.* Exon-intron organization and chromosomal localization of the mouse monoglyceride lipase gene. *Gene* **272**, 11-18 (2001).
- Karlsson, M., Contreras, J.A., Hellman, U., *et al.* cDNA cloning, tissue distribution, and identification of the catalytic triad of monoglyceride lipase. Evolutionary relationship to esterases, lysophospholipases, and haloperoxidases. *J. Biol. Chem.* **272**, 27218-27223 (1997).
- Dinh, T.P., Freund, T.F., and Piomelli, D. A role for monoglyceride lipase in 2-arachidonoylglycerol inactivation. *Chem. Phys. Lipids* **121**, 149-158 (2002).

Related Products

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MATERIAL SAFETY DATA

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