

PRODUCT INFORMATION



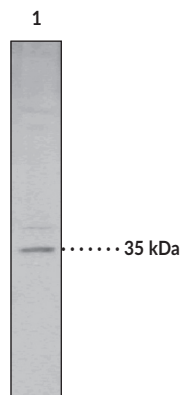
Monoacylglycerol Lipase Polyclonal Antibody

Item No. 100035

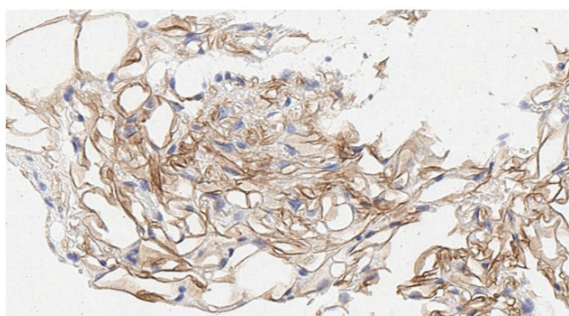
Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	HU-K5, Lysophospholipase homolog, MAGL, MGL, MGLL
Immunogen:	Synthetic peptide from human MAGL
Species Reactivity:	(+) Human, bovine, mouse, and rat; other species not tested
Uniprot No.:	Q99685
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) (formalin-fixed paraffin-embedded tissue) and Western blot (WB); the recommended starting dilution is 1:150 and 1:300, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Rat brown fat (~20 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) mouse adipose tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with monoacylglycerol lipase polyclonal antibody, (Item No. 100035), at a 1:150 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

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.

References

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2. Karlsson, M., Reue, K., Xia, Y.-R., *et al.* Exon-intron organization and chromosomal localization of the mouse monoglyceride lipase gene. *Gene* **272(1-2)**, 11-18 (2001).
3. 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(43)**, 27218-27223 (1997).
4. Dinh, T.P., Freund, T.F., and Piomelli, D. A role for monoglyceride lipase in 2-arachidonoylglycerol inactivation. *Chem. Phys. Lipids* **121(1-2)**, 149-158 (2002).

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