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).

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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 actions\(^1\) 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