**BACKGROUND**

Monoglyceride Lipase (MGL), also known as lysophospholipase-like or lysophospholipase homolog, is a ubiquitously expressed protein that functions in the endocannabinoid system. It is required for the degradation of endocannabinoids and the complete hydrolysis of monoglycerides. In addition, Monoglyceride Lipase functions together with HSL (hormone-sensitive lipase) to hydrolyze intracellular triglyceride to glycerol and fatty acids. Monoglyceride Lipase is a presynaptic, cytosolic enzyme that functions as a serine hydrolase and specifically hydrolyzes 2- and 1(3)-ester bonds of monoglycerides. In particular, Monoglyceride Lipase is responsible for the inactivation and degradation of 2-arachidonoylglycerol (2-AG). 2-AG is a monoglyceride produced by neurons that activates cannabinoid receptors and possibly modulates neurotransmitter release and synaptic plasticity.

**CHROMOSOMAL LOCATION**

Genetic locus: MGLL (human) mapping to 3q21.3; Mgll (mouse) mapping to 6 D1.

**SOURCE**

Monoglyceride Lipase (C-11) is a mouse monoclonal antibody raised against amino acids 1-300 representing full length Monoglyceride Lipase of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Monoglyceride Lipase (C-11) is available conjugated to agarose (sc-398942), and to either phycoerythrin (sc-398942 PE), fluorescein (sc-398942 FITC), Alexa Fluor® 488 (sc-398942 AF488), Alexa Fluor® 546 (sc-398942 AF546), Alexa Fluor® 594 (sc-398942 AF594) or Alexa Fluor® 647 (sc-398942 AF647), 200 µg/ml, for WB, IF, (HCIP) and FCM; and to either Alexa Fluor® 680 (sc-398942 AF680) or Alexa Fluor® 790 (sc-398942 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Monoglyceride Lipase (C-11) is recommended for detection of Monoglyceride Lipase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1,000), immunoprecipitation [1-2 µg per 100-500 µl 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).


Molecular Weight of Monoglyceride Lipase: 33 kDa.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![Western blot analysis of Monoglyceride Lipase expression in IMR-32 (A) and A549 (B) whole cell lysates (C) and human adipose tissue extracts (D).](image)

![Western blot analysis of Monoglyceride Lipase expression in U-87 MG whole cell lysate (A) and human breast (B) and mouse brain (C) tissue extracts.](image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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