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Mouse MOGT2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1122b

Product Information

Application	WB, E
Primary Accession	Q80W94
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB12723
Calculated MW	38591
Antigen Region	278-312

Additional Information

Gene ID	233549
Other Names	2-acylglycerol O-acyltransferase 2, Acyl-CoA:monoacylglycerol acyltransferase 2, MGAT2, Diacylglycerol acyltransferase 2-like protein 5, Monoacylglycerol O-acyltransferase 1-like, Monoacylglycerol O-acyltransferase 2, Mogat2, Dgat2l5, Mgat1l
Target/Specificity	This Mouse MOGT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 278-312 amino acids from the C-terminal region of mouse MOGT2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse MOGT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Mogat2 {ECO:0000312|MGI:MGI:2663253}
Synonyms	Dgat2l5, Mgat1l

Function	Involved in glycerolipid synthesis and lipid metabolism (PubMed: 12576479, PubMed:12621063, PubMed:12730219, PubMed:14966132). Plays a central role in absorption of dietary fat in the small intestine by catalyzing the resynthesis of triacylglycerol in enterocytes (Probable). Catalyzes the formation of diacylglycerol, the precursor of triacylglycerol, by transferring the acyl chain of a fatty acyl-CoA to a monoacylglycerol (PubMed:12621063, PubMed:12730219). Has a preference toward monoacylglycerols containing unsaturated fatty acids in an order of C18:3 > C18:2 > C18:1 > C18:0 (PubMed:12730219). Able to use 1-monoalkylglycerol (1-MAkG, 1-O-alkylglycerol) as an acyl acceptor for the synthesis of monoalkyl-monoacylglycerol (MAMAG, 1-O- alkyl-3-acylglycerol) (PubMed:12730219). Possesses weak but significant activity with diacylglycerol as substrate, producing triacylglycerol (triacyl-sn-glycerol) (PubMed:12730219).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q3SYC2}
Tissue Location	Mainly expressed in small intestine. Detected in the small intestine in a proximal-to-distal gradient that correlated with fat absorption pattern. Present not only in the villi, but also in the crypt regions of the small intestine, which suggests that expression occurs prior to the maturation of enterocytes. Not detectable in other sections of the digestive tract, including stomach, cecum, colon and rectum, or other tissues such as kidney, liver and adipocytes (at protein level). Also detected in kidney, adipose and stomach. Expressed at very low level in liver, skeletal muscle and spleen. Not expressed in brain, heart, lung, skin, testis and thymus

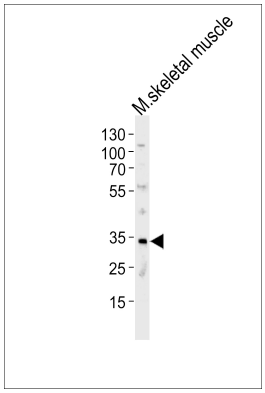
Background

MOGT2 catalyzes the formation of diacylglycerol from 2-monoacylglycerol and fatty acyl-CoA. It exhibits a preference toward monoacylglycerols containing unsaturated fatty acids in the order of C18:3 > C18:2 > C18:1 > C18:0. This protein plays a central role in absorption of dietary fat in the small intestine by catalyzing the resynthesis of triacylglycerol in enterocytes. MOGT2 may play a role in diet-induced obesity.

References

Cao,J., J. Biol. Chem. 279 (18), 18878-18886 (2004)
Cao,J., J. Biol. Chem. 278 (28), 25657-25663 (2003)
Yen,C.L., J. Biol. Chem. 278 (20), 18532-18537 (2003)

Images



Western blot analysis of lysate from mouse skeletal muscle tissue lysate, using MOGT2 Antibody (C-term)(Cat. #AP1122b). AP1122b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.