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DGAT1 Antibody

Rabbit mAb
Catalog # AP92315

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	O75907
Reactivity	Human
Clonality	Monoclonal
Other Names	ARAT; ARGP1; C75990; Dgat; DGAT1; DIAR7; Diglyceride acyltransferase;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	55278

Additional Information

Dilution	WB 1:1000~1:5000 ICC/IF 1:50~1:200 IP 1:50 FC 1:60
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human DGAT1
Description	Catalyzes the terminal and only committed step in triacylglycerol synthesis by using diacylglycerol and fatty acyl CoA as substrates. In contrast to DGAT2 it is not essential for survival. May be involved in VLDL (very low density lipoprotein) assembly.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

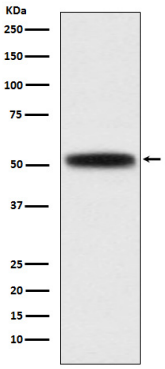
Protein Information

Name	DGAT1 {ECO:0000303|PubMed:16214399, ECO:0000312|HGNC:HGNC:2843}
Function	Catalyzes the terminal and only committed step in triacylglycerol synthesis by using diacylglycerol and fatty acyl CoA as substrates (PubMed:16214399, PubMed:18768481, PubMed:28420705, PubMed:32433610, PubMed:32433611, PubMed:9756920). Highly expressed in epithelial cells of the small intestine and its activity is essential for the absorption of dietary fats (PubMed:18768481). In liver, plays a role in esterifying exogenous fatty acids to glycerol, and is required to synthesize fat for storage (PubMed:16214399). Also present in female mammary glands, where it produces fat in the milk (By similarity). May be involved in VLDL (very low density lipoprotein) assembly (PubMed:18768481). In contrast to DGAT2 it is not essential for survival (By similarity). Functions as the major acyl-CoA retinol acyltransferase (ARAT) in the skin, where it acts to maintain retinoid homeostasis and prevent retinoid toxicity leading to skin and hair disorders (PubMed:16214399). Exhibits additional acyltransferase activities, includin acyl CoA:monoacylglycerol acyltransferase (MGAT), wax monoester and wax diester synthases (By

similarity). Also able to use 1-monoalkylglycerol (1-MAkG) as an acyl acceptor for the synthesis of monoalkyl-monoacylglycerol (MAMAG) (PubMed:28420705).

Cellular Location Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Z2A7}; Multi-pass membrane protein

Images



Western blot analysis of DGAT1 expression in HeLa cell lysate.