

KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1503**Specification****KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC
Primary Accession	O75907
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 55 kDa , observed, 48 kDa KDa
Gene Name	DGAT1
Aliases	DGAT1; Diacylglycerol O-Acyltransferase 1; ARGP1; DGAT; Acyl-CoA Retinol O-Fatty-Acyltransferase; Diglyceride Acyltransferase; EC 2.3.1.20; ARAT; Acyl Coenzyme A:Cholesterol Acyltransferase Related Gene 1; Diacylglycerol O-Acyltransferase (Mouse) Homolog; Acyl-CoA:Diacylglycerol Acyltransferase; Retinol O-Fatty-Acyltransferase; ACAT Related Gene Product 1; ACAT-Related Gene Product 1; EC 2.3.1.76; EC 2.3.1; DIAR7; AGRP1
Immunogen	A synthesized peptide derived from human DGAT1

KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	8694
Other Names	
Diacylglycerol O-acyltransferase 1, 2.3.1.20, ACAT-related gene product 1, Acyl-CoA retinol O-fatty-acyltransferase, ARAT, Retinol O-fatty-acyltransferase, 2.3.1.76, Diglyceride acyltransferase, DGAT1 {ECO:0000303 PubMed:16214399, ECO:0000312 HGNC:HGNC:2843}	

KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/28420705"

target="_blank">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, including 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

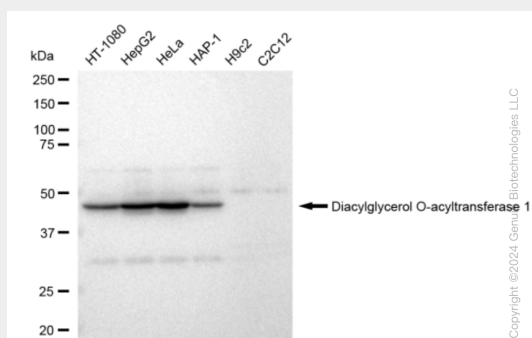
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Z2A7}; Multi-pass membrane protein

KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

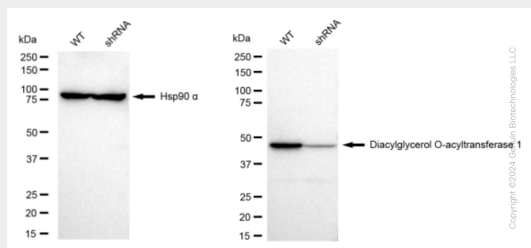
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Diacylglycerol O-acyltransferase 1 Rabbit Monoclonal Antibody - Images

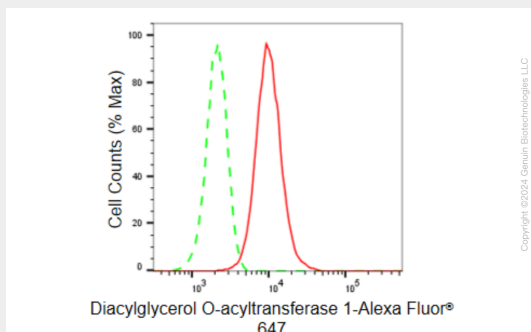


Western blotting analysis using anti-Diacylglycerol O-acyltransferase 1 antibody (Cat#AGI1503). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot

was incubated with anti-Diacylglycerol O-acyltransferase 1 antibody (Cat#AGI1503, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Diacylglycerol O-acyltransferase 1 antibody (Cat#AGI1503). Diacylglycerol O-acyltransferase 1 expression in wild type (WT) and Diacylglycerol O-acyltransferase 1 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Diacylglycerol O-acyltransferase 1 antibody (Cat#AGI1503, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Diacylglycerol O-acyltransferase 1 expression in HeLa cells using Diacylglycerol O-acyltransferase 1 antibody (Cat#AGI1503, 1:2,000). Green, isotype control; red, Diacylglycerol O-acyltransferase 1.