bs-12998R **[Primary Antibody]**

DGAT2 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 84649 **SWISS:** Q96PD7

Target: DGAT2

Immunogen: KLH conjugated synthetic peptide derived from human DGAT2: 251-360/388.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Glucose and insulin are anabolic signals which upregulate the transcriptions of a series of lipogenic enzymes to convert excess carbohydrate into triglycerides for efficient energy storage. Acyl-coenzyme A:diacylglycerol acyltransferase, also known as DGAT1 and ARGP1, is a microsomal enzyme that assists in the synthesis of fatty acids into triglycerides. DGAT1 catalyzes the terminal and only committed step in triacylglycerol synthesis by using diacylglycerol (DAG) and fatty acyl CoA as substrates. DGAT1 plays a fundamental role in the metabolism of cellular diacylglycerol and is important in higher eukaryotes for physiologic processes involving triacylglycerol metabolism, such as intestinal fat absorption, lipoprotein assembly, adipose tissue form-ation and lactation. DGAT2, which has no homology to DGAT1, differs from DGAT1 in that its activity has been shown to be inhibited by MgCl in an in vitro assay. DGAT2 is expressed primarily in liver and white adipose tissue, which suggests that it plays an important role in mammalian triglyceride metabolism.

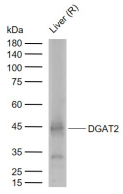
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Rat (predicted: Mouse, Sheep, Cow, Dog, Horse)

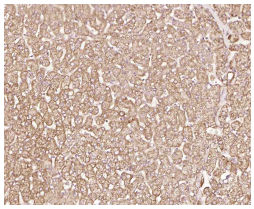
Predicted MW.: 44 kDa

Subcellular Location: Cell membrane ,Cytoplasm

VALIDATION IMAGES



Sample: Lane 1: Rat Liver tissue lysates Primary: Anti-DGAT2 (bs-12998R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 44 kDa Observed band size: 44 kDa



Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with DGAT2 Polyclonal Antibody, Unconjugated (bs-12998R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.

SELECTED CITATIONS

- **[IF=20.773]** van Rijn JM et al. Intestinal Failure and Aberrant Lipid Metabolism in Patients With DGAT1 Deficiency. Gastroenterology. 2018 Jul;155(1):130-143.e15. WB ;Human. 29604290
- **[IF=6.268]** Jin, Yi. et al. Glutathione S-transferase Mu 2 inhibits hepatic steatosis via ASK1 suppression. COMMUN BIOL.

Commun Biol. 2022 Apr;5(1):1-12 IF ;Human. 35388144

- **[IF=4.743]** van Rijn JM et al. DGAT2 partially compensates for lipid-induced ER stress in human DGAT1-deficient intestinal stem cells. J Lipid Res. 2019 Jul 17. pii: jlr.M094201. WB ;Human. 31315900
- **[IF=2.559]** Wang X et al. ER stress mediated degradation of diacylglycerol acyltransferase impairs mitochondrial functions in TMCO1 deficient cells. Biochem Biophys Res Commun. 2019 May 14;512(4):914-920. WB ;Human. 30929916