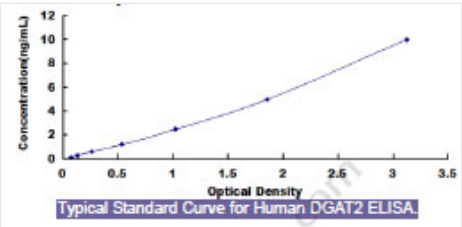
Diacylglycerol-O-Acyltransferase Homolog 2 (DGAT2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Diacylglycerol-O-Acyltransferase Homolog 2 (DGAT2), ELISA Kit
Full Product Name	Human Diacylglycerol-O-Acyltransferase Homolog 2 (DGAT2) ELISA Kit
Product Gene Name	DGAT2 elisa kit
Product Synonym Names	ARAT; Acyl-CoA retinol O-fatty-acyltransferase; Diglyceride acyltransferase 2
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue homogenates, cell lysates and other biological fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.071ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of DGAT2. No significant cross-reactivity or interference between DGAT2 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level DGAT2 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level DGAT2 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	39,044 Da
OMIM	AF384161 mRNA
3D Structure	ModBase 3D Structure for Q96PD7
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DGAT2 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of DGAT2 in tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to DGAT2. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to DGAT2. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain DGAT2, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of DGAT2 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of DGAT2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for DGAT2 purchase	MBS450906 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Diacylglycerol-O-Acyltransferase Homolog 2 (DGAT2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing DGAT2. The ELISA analytical biochemical technique of the MBS450906 kit is based on DGAT2 antibody-DGAT2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DGAT2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DGAT2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of DGAT2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DGAT2. It may not necessarily be applicable to this product.

NCBI GI #	359806523
NCBI GeneID	84649
NCBI Accession #	NP_001240820.1
UniProt Primary Accession #	Q96PD7
UniProt Secondary Accession #	Q5U810; Q68CL3; Q68DJ0; Q8NDB7; Q96BS0; Q9BYE5; A6ND76
UniProt Related Accession #	Q96PD7
GenBank Nucleotide #	NM_001253891.1
NCBI Official Full Name	diacylglycerol O-acyltransferase 2 isoform 2
NCBI Official Synonym Full Names	diacylglycerol O-acyltransferase 2
NCBI Official Symbol	DGAT2
NCBI Official Synonym Symbols	ARAT; HMFN1045; GS1999FULL
UniProt Protein Name	Diacylglycerol O-acyltransferase 2
UniProt Synonym Protein Names	Acyl-CoA retinol O-fatty-acyltransferase (EC:2.3.1.76); ARAT; Retinol O-fatty-acyltransferase; Diglyceride acyltransferase 2
Protein Family	Diacylglycerol O-acyltransferase
UniProt Gene Name	DGAT2
UniProt Synonym Gene Names	ARAT; Retinol O-fatty-acyltransferase
NCBI Protein Information	diacylglycerol O-acyltransferase 2
NCBI Summary for DGAT2	This gene encodes one of two enzymes which catalyzes the final reaction in the synthesis of triglycerides in which diacylglycerol is covalently bound to long chain fatty acyl-CoAs. The encoded protein catalyzes this reaction at low concentrations of magnesium chloride while the other enzyme has high activity at high concentrations of magnesium chloride. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]

UniProt Comments for DGAT2	Essential acyltransferase that catalyzes the terminal and only committed step in triacylglycerol synthesis by using diacylglycerol and fatty acyl CoA as substrates. Required for synthesis and storage of intracellular triglycerides. Probably plays a central role in cytosolic lipid accumulation. In liver, is primarily responsible for incorporating endogenously synthesized fatty acids into triglycerides (). Functions also as an acyl-CoA retinol acyltransferase (ARAT).
Research Articles on DGAT2	**1.** Results identified a novel de novo p.Y223H mutation in the DGAT2 from an autosomal-dominant Korean Charcot-Marie-Tooth (CMT) family suggesting this mutation a novel underlying cause of an autosomal-dominant CMT2 phenotype.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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