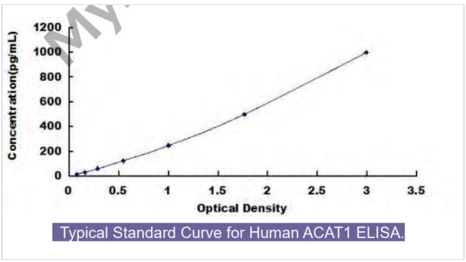
Acetyl Coenzyme A Acetyltransferase 1 (ACAT1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Acetyl Coenzyme A Acetyltransferase 1 (ACAT1), ELISA Kit
Full Product Name	Human Acetyl Coenzyme A Acetyltransferase 1 (ACAT1) ELISA Kit
Product Gene Name	ACAT1 elisa kit
Product Synonym Names	THIL; ACAT; T2; MAT; Acetoacetyl Coenzyme A Thiolase
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Human tissue homogenates, cell lysates or other biological fluids
Detection Range	15.6-1000pg/mL
Sensitivity	< 4.75pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of ACAT1. No significant cross-reactivity or interference between ACAT1 and analogues was observed.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level ACAT1 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 ACAT1 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	17,175 Da
OMIM	D90228 mRNA
3D Structure	ModBase 3D Structure for P24752
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for ACAT1 elisa kit	Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to ACAT1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to ACAT1. 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 ACAT1, 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 ACAT1 in the samples is then determined by comparing the O.D. of the samples to the standard curve. Intended Uses: The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of ACAT1 in human tissue homogenates, cell lysates or other biological fluids.
Other Notes	Small volumes of ACAT1 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 ACAT1 purchase	MBS456932 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Acetyl Coenzyme A Acetyltransferase 1 (ACAT1) 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 ACAT1. The ELISA analytical biochemical technique of the MBS456932 kit is based on ACAT1 antibody-ACAT1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ACAT1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ACAT1. 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 ACAT1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACAT1. It may not necessarily be applicable to this product.

NCBI GI #	4557237
NCBI GeneID	38
NCBI Accession #	NP_000010.1
UniProt Primary Accession #	P24752
UniProt Secondary Accession #	Q96FG8; B2R6H1; G3XAB4
UniProt Related Accession #	P24752
GenBank Nucleotide #	NM_000019.3
NCBI Official Full Name	acetyl-CoA acetyltransferase, mitochondrial
NCBI Official Synonym Full Names	acetyl-CoA acetyltransferase 1
NCBI Official Symbol	ACAT1
NCBI Official Synonym Symbols	T2; MAT; ACAT; THIL
UniProt Protein Name	Acetyl-CoA acetyltransferase, mitochondrial
UniProt Synonym Protein Names	Acetoacetyl-CoA thiolase; T2
UniProt Gene Name	ACAT1
UniProt Synonym Gene Names	ACAT; MAT
NCBI Protein Information	acetyl-CoA acetyltransferase, mitochondrial
NCBI Summary for ACAT1	This gene encodes a mitochondrially localized enzyme that catalyzes the reversible formation of acetoacetyl-CoA from two molecules of acetyl-CoA. Defects in this gene are associated with 3-ketothiolase deficiency, an inborn error of isoleucine catabolism characterized by urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, tiglylglycine, and butanone. [provided by RefSeq, Feb 2009]
UniProt Comments for ACAT1	Plays a major role in ketone body metabolism.
Research Articles on ACAT1	**1.** Our results demonstrated the contrasting effects of STC1 and STC2-derived peptides on human macrophage foam cell formation associated with ACAT1 expression and on HASMC migration.
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