

Rabbit ACAT1 Polyclonal Antibody | anti-ACAT1 antibody

Anti-ACAT1 Antibody Picoband

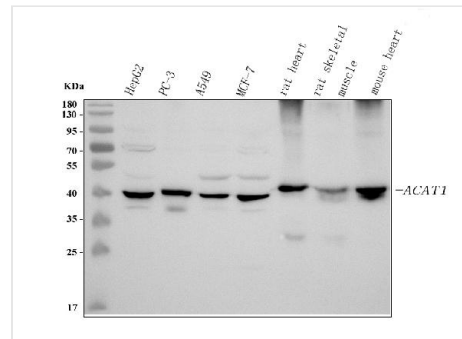
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19765	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

ACAT1; Polyclonal Antibody; Anti-ACAT1 Antibody Picoband; Bifunctional epoxide hydrolase 2; Cytosolic epoxide hydrolase 2; CEH; 3.3.2.10; Epoxide hydratase; Soluble epoxide hydrolase; SEH; Lipid-phosphate phosphatase; 3.1.3.76; EPHX2; anti-ACAT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Ubiquitous. A high level expression is seen in secretory tissues.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-ACAT1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA
Application Notes	WB: 0.25-0.5ug/ml, Human, Mouse, Rat IHC(Paraffin-embedded Section): 2-5ug/ml, Human ICC/IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10 ⁶ cells, Human ELISA: 0.1-0.5ug/ml
Immunogen	E coli-derived human ACAT1 recombinant protein (Position: S10-Q404).
Subcellular Localization	Cytoplasm. Peroxisome
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Bifunctional enzyme. The C-terminal domain has epoxide hydrolase activity and acts on epoxides (alkene oxides, oxiranes) and arene oxides. Plays a role in xenobiotic metabolism by degrading potentially toxic epoxides. Also determines steady-state levels of physiological mediators. The N-terminal domain has lipid phosphatase activity, with the highest activity towards threo- 9,10-phosphonoxy-hydroxy-octadecanoic acid, followed by erythro- 9,10-phosphonoxy-hydroxy-octadecanoic acid, 12-phosphonoxy- octadec-9Z-enoic acid, 12-phosphonoxy-octadec-9E-enoic acid, and p-nitrophenyl phosphate.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



IF (Immunofluorescence)

Figure 5. IF analysis of ACAT1 using anti-ACAT1 antibody (AAA19765). ACAT1 was detected in an immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ACAT1 Antibody (AAA19765) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ACAT1 Antibody (AAA19765) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ACAT1 Antibody (AAA19765) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Lane 2: human PC-3 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat heart tissue lysates, Lane 6: rat skeletal muscle tissue lysates, Lane 7: mouse heart tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ACAT1 antigen affinity purified polyclonal antibody (#AAA19765) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ACAT1 at approximately 40 kDa. The expected band size for ACAT1 is at 40 kDa.

Related Product Information for anti-ACAT1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-ACAT1 antibody	Primary Antibodies ; Cancer Metabolism ; Cardiovascular ; Cell Biology ; Cholesterol Metabolism ; Drug Metabolism ; Fatty Acid Oxidation ; Fatty Acids ; Lipid and Lipoprotein Metabolism ; Lipid Metabolism ; Lipids/Lipoproteins ; Metabolic Signaling Pathways ; Metabol
References	1. Daum, R. S., Scriver, C. R., Mamer, O. A., Delvin, E., Lamm, P. H., Goldman, H. An inherited disorder of isoleucine catabolism causing accumulation of alpha-methylacetoacetate and alpha-methyl-beta-hydroxybutyrate and intermittent metabolic acidosis. <i>Pediat. Res.</i> 7: 149-160, 1973.2. Fukao, T., Matsuo, N., Zhang, G. X., Urasawa, R., Kubo, T., Kohno, Y., Kondo, N. Single base substitutions at the initiator codon in the mitochondrial acetoacetyl-CoA thiolase (ACAT1/T2) gene result in production of varying amounts of wild-type T2 polypeptide. <i>Hum. Mutat.</i> 21: 587-592, 2003. 3. Fukao, T., Nakamura, H., Nakamura, K., Perez-Cerda, C., Baldellou, A., Barrionuevo, C. R., Castello, F. G., Kohno, Y., Ugarte, M., Kondo, N. Characterization of six mutations in five Spanish patients with mitochondrial acetoacetyl-CoA thiolase deficiency: effects of amino acid substitutions on tertiary structure. <i>Molec. Genet. Metab.</i> 75: 235-243, 2002.

NCBI GI # 4557237

NCBI GeneID	38
NCBI Accession #	NP_000010.1
NCBI GenBank Nucleotide #	NM_000019.3
UniProt Accession #	P24752; B2R6H1
Molecular Weight	45,200 Da
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
NCBI Protein Information	acetyl-CoA acetyltransferase, mitochondrial; acetoacetyl-CoA thiolase; acetoacetyl Coenzyme A thiolase; acetyl-Coenzyme A acetyltransferase 1; mitochondrial acetoacetyl-CoA thiolase
UniProt Protein Name	Acetyl-CoA acetyltransferase, mitochondrial
UniProt Gene Name	ACAT1
UniProt Synonym Gene Names	ACAT; MAT
UniProt Entry Name	THIL_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/acet1-antibody-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19765>