Best Tools for immunology Research

# ACAT-1 Polyclonal Antibody

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| **Catalog No :** | YT0071 |
| **Reactivity :** | Human;Mouse;Rat |
| **Applications :** | WB;IHC;IF;ELISA |
| **Target :** | ACAT-1 |
| **Fields :** | >>Fatty acid degradation;>>Valine, leucine and isoleucine degradation;>>Lysine degradation;>>Tryptophan metabolism;>>Pyruvate metabolism;>>Glyoxylate and dicarboxylate metabolism;>>Butanoate metabolism;>>Terpenoid backbone biosynthesis;>>Metabolic pathways;>>Carbon metabolism;>>Fatty acid metabolism;>>Fat digestion and absorption |
| **Gene Name :** | ACAT1 |
| **Protein Name :** | Acetyl-CoA acetyltransferase mitochondrial |
| **Human Gene Id :** | 38 |
| **Human Swiss Prot No :** | P24752 |
| **Mouse Gene Id :** | 110446 |
| **Mouse Swiss Prot No :** | Q8QZT1 |
| **Rat Gene Id :** | 25014 |
| **Rat Swiss Prot No :** | P17764 |
| **Immunogen :** | The antiserum was produced against synthesized peptide derived from human ACAT1. AA range:221-270 |
| **Specificity :** | ACAT-1 Polyclonal Antibody detects endogenous levels of ACAT-1 protein. |
| **Formulation :** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source :** | Polyclonal, Rabbit,IgG |

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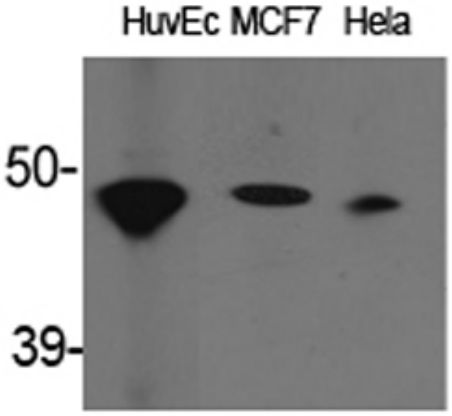
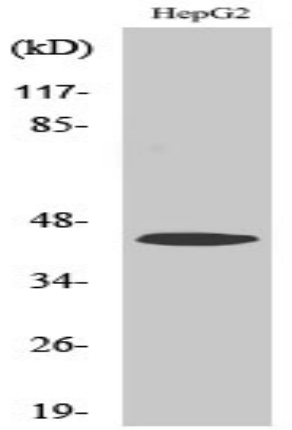
| **Dilution :** | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200 |
| **Purification :** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Concentration :** | 1 mg/ml |
| **Storage Stability :** | -15°C to -25°C/1 year(Do not lower than -25°C) |
| **Observed Band :** | 45kD |
| **Cell Pathway :** | Fatty acid metabolism;Synthesis and degradation of ketone bodies;Valine; leucine and isoleucine degradation;Lysine degradation;Tryptophan metabolism;Pyruvate metabolism;Propanoate metabolism;Butanoate |
| **Background :** | 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], |
| **Function :** | catalytic activity:2 acetyl-CoA = CoA + acetoacetyl-CoA.,disease:Defects in ACAT1 are a cause of 3-ketothiolase deficiency (3KTD) [MIM:203750]; also known as alpha-methylacetoaceticaciduria. 3KTD is an inborn error of isoleucine catabolism characterized by intermittent ketoacidotic attacks associated with unconsciousness. Some patients die during an attack or are mentally retarded. Urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, triglylglycine, butanone is increased. It seems likely that the severity of this disease correlates better with the environmental or acquired factors than with the ACAT1 genotype.,enzyme regulation:Activated by potassium ions, but not sodium ions.,function:Plays a major role in ketone body metabolism.,similarity:Belongs to the thiolase family.,subunit:Homotetramer., |
| **Subcellular Location :** | Mitochondrion . |
| **Expression :** | Adipocyte,Brain,Fetal brain cortex, |

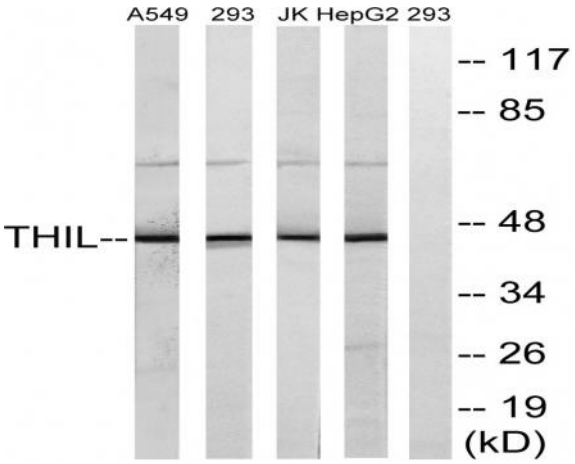
## Products Images



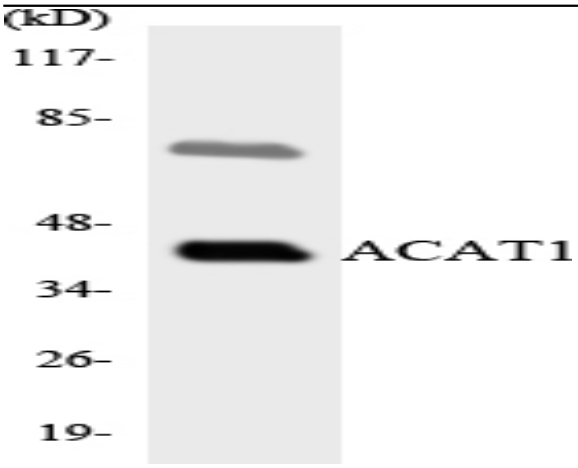

Western Blot analysis of various cells using ACAT-1 Polyclonal Antibody



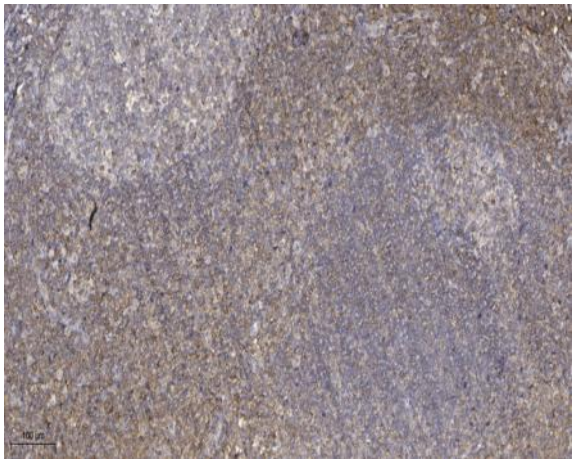

Western Blot analysis of A549 cells using ACAT-1 Polyclonal Antibody




Western blot analysis of lysates from HepG2, Jurkat, 293, and A549 cells, using ACAT1 Antibody. The lane on the right is blocked with the synthesized peptide.




Western blot analysis of the lysates from HepG2 cells using ACAT1 antibody.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).