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ACOX1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1847B

Specification

ACOX1 Antibody - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	Q15067
Other Accession	NP_009223.2
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

ACOX1 Antibody - Additional Information

Gene ID 51

Other Names
Peroxisomal acyl-coenzyme A oxidase 1, AOX, Palmitoyl-CoA oxidase, Straight-chain acyl-CoA oxidase, SCOX, ACOX1, ACOX

Target/Specificity
This ACOX1 monoclonal antibody is generated from mouse immunized with ACOX1 recombinant protein.

Dilution
IF~~1:10~50
WB~~1:4000
IHC-P~~1:10~50

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ACOX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ACOX1 Antibody - Protein Information

Name ACOX1 (HGNC:119)

Synonyms ACOX

Function Involved in the initial and rate-limiting step of peroxisomal beta-oxidation of straight-chain saturated and unsaturated very-long- chain fatty acids (PubMed:7876265, PubMed:15060085, PubMed:17458872, PubMed:17603022, PubMed:32169171, PubMed:33234382). Catalyzes the desaturation of fatty acyl-CoAs such as palmitoyl-CoA (hexadecanoyl- CoA) to 2-trans-enoyl-CoAs ((2E)-enoyl-CoAs) such as (2E)-hexadecenoyl- CoA, and donates electrons directly to molecular oxygen (O(2)), thereby producing hydrogen peroxide (H(2)O(2)) (PubMed:7876265, PubMed:17458872, PubMed:17603022).

Cellular Location
Peroxisome.

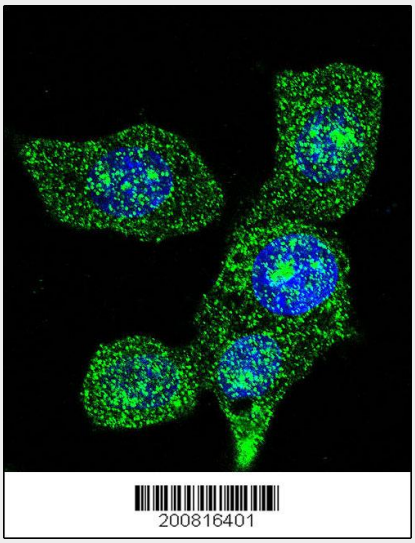
Tissue Location
Widely expressed with highest levels of isoform 1 and isoform 2 detected in testis. Isoform 1 is expressed at higher levels than isoform 2 in liver and kidney while isoform 2 levels are higher in brain, lung, muscle, white adipose tissue and testis. Levels are almost equal in heart.

ACOX1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

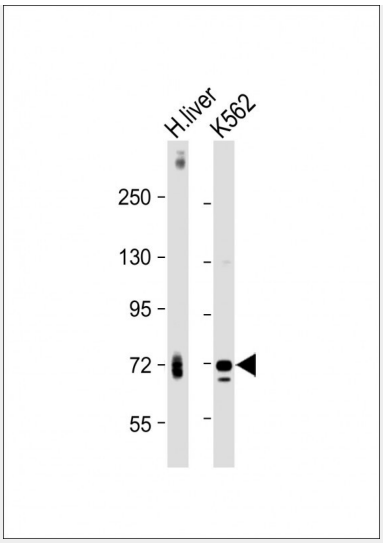
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACOX1 Antibody - Images

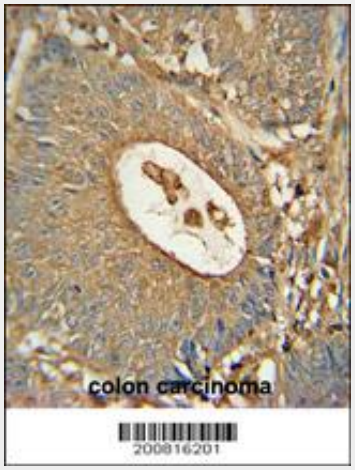


Confocal immunofluorescent analysis of ACOX1 Antibody (Cat#AM1847b) with Hela cell followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG (green). DAPI was used to stain the cell nuclear (blue).

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All lanes : Anti-ACOX1 Antibody at 1:4000 dilution Lane 1: Human liver lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 74 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



ACOX1 Monoclonal Antibody (Cat. #AM1847b) immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjµgation of the secondary antibody and DAB staining. This data demonstrates the use of the ACOX1 Monoclonal Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

ACOX1 Antibody - Background

ACOX1 is the first enzyme of the fatty acid beta-oxidation pathway, which catalyzes the desaturation of acyl-CoAs to 2-trans-enoyl-CoAs. It donates electrons directly to molecular oxygen, thereby producing hydrogen peroxide. Defects in this gene result in pseudoneonatal adrenoleukodystrophy, a disease that is characterized by accumulation of very long chain fatty acids.

ACOX1 Antibody - References

Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008) Carrozzo, R., et al. Am. J. Med. Genet. A 146A (13), 1676-1681 (2008) Omi, S., et al. J. Biochem. 143(5):649-660(2008)