

# ACOX1 Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM1847B

## Product Information

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<b>Application</b>	WB, IHC-P, IF, E
<b>Primary Accession</b>	<a href="#">Q15067</a>
<b>Other Accession</b>	<a href="#">NP_009223.2</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Clone Names</b>	153CT43.1.1
<b>Calculated MW</b>	74424

## Additional Information

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<b>Gene ID</b>	51
<b>Other Names</b>	Peroxisomal acyl-coenzyme A oxidase 1, AOX, Palmitoyl-CoA oxidase, Straight-chain acyl-CoA oxidase, SCOX, ACOX1, ACOX
<b>Target/Specificity</b>	This ACOX1 monoclonal antibody is generated from mouse immunized with ACOX1 recombinant protein.
<b>Dilution</b>	WB~~1:100~500 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	ACOX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ACOX1 ( <a href="#">HGNC:119</a> )
<b>Synonyms</b>	ACOX
<b>Function</b>	Involved in the initial and rate-limiting step of peroxisomal beta-oxidation of straight-chain saturated and unsaturated very-long- chain fatty acids

(PubMed:[15060085](#), PubMed:[17458872](#), PubMed:[17603022](#), PubMed:[32169171](#), PubMed:[33234382](#), PubMed:[7876265](#)). 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<sub>2</sub>), thereby producing hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) (PubMed:[17458872](#), PubMed:[17603022](#), PubMed:[7876265](#)).

#### 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.

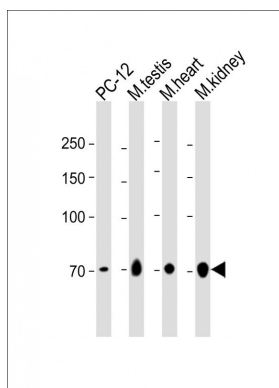
## Background

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.

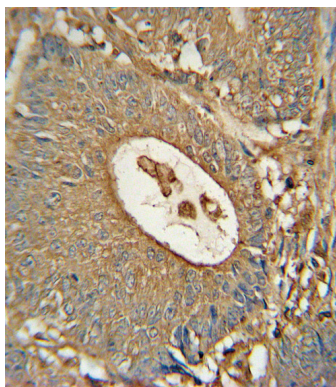
## References

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)

## Images

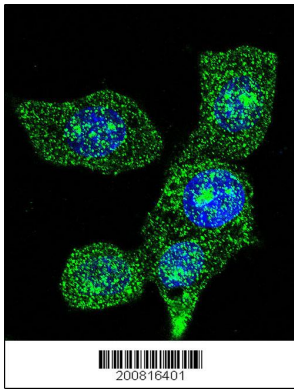


All lanes: Anti-ACOX1 Antibody at 1:1000 dilution Lane 1: PC-12 whole cell lysate Lane 2: Mouse testis lysate Lane 3: Mouse heart lysate Lane 4: Mouse kidney lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed 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 conjugation 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.

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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.