

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

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**ACOX1 Antibody - Product Information**

Application	WB, IF, IHC-P,E
Primary Accession	<a href="#">Q15067</a>
Other Accession	<a href="#">NP_009223.2</a>
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**

WB~~1:4000  
IF~~1:10~50  
IHC-P~~1:10~50  
E~~Use at an assay dependent concentration.

**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:[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**

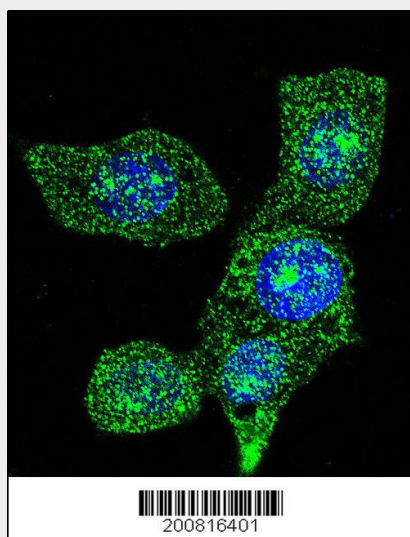
Widely expressed with highest levels of isoform 1 and isoform 2 detected in testis. Isoform 1 is expressed at higher levels than isoform 2 in liver and kidney while isoform 2 levels are higher in brain, lung, muscle, white adipose tissue and testis. Levels are almost equal in heart.

#### **ACOX1 Antibody - Protocols**

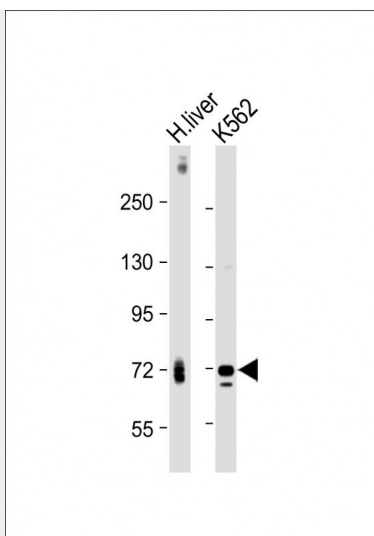
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

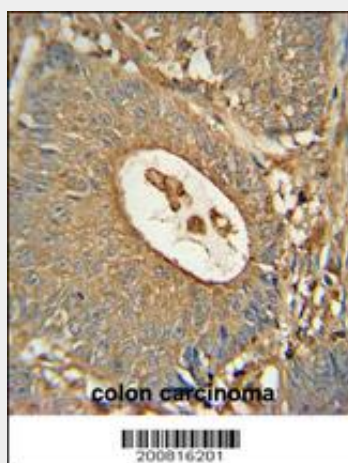
#### **ACOX1 Antibody - Images**



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



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 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.

### 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)