

# ACOX1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2523A

## Product Information

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Application	IHC-P, E
Primary Accession	<a href="#">Q15067</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	74424
Antigen Region	7-37

## Additional Information

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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 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 7-37 amino acids from the N-terminal region of human ACOX1.
Dilution	IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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Name	ACOX1 ( <a href="#">HGNC:119</a> )
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: <a href="#">15060085</a> , PubMed: <a href="#">17458872</a> , PubMed: <a href="#">17603022</a> ,

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)-hexadecanoyl- CoA, and donates electrons directly to molecular oxygen (O(2)), thereby producing hydrogen peroxide (H(2)O(2)) (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

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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.

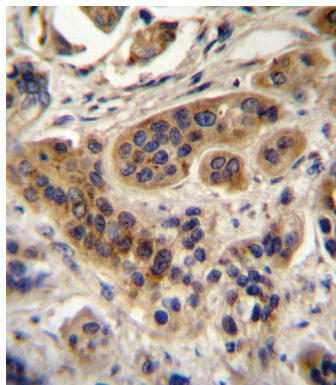
## References

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Aoyama, T., et al., Biochem. Biophys. Res. Commun. 198(3):1113-1118 (1994).  
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## Images

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ACOX1 Antibody (N-term) (Cat. #AP2523A) immunohistochemistry analysis in formalin fixed and paraffin embedded human bladder carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of ACOX1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

## Citations

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- [Transcriptional coactivator PGC-1alpha promotes peroxisomal remodeling and biogenesis.](#)

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