

ACOX1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2523a**Specification**

ACOX1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q15067](#)**ACOX1 Antibody (N-term) Blocking Peptide - 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

The synthetic peptide sequence used to generate the antibody [AP2523a](/product/products/AP2523a) was selected from the N-term region of human ACOX1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACOX1 Antibody (N-term) Blocking Peptide - 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](http://www.uniprot.org/citations/7876265), PubMed:[15060085](http://www.uniprot.org/citations/15060085), PubMed:[17458872](http://www.uniprot.org/citations/17458872), PubMed:[17603022](http://www.uniprot.org/citations/17603022), PubMed:[32169171](http://www.uniprot.org/citations/32169171), PubMed:[33234382](http://www.uniprot.org/citations/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 (O₂), thereby producing hydrogen peroxide (H₂O₂) (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 (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ACOX1 Antibody (N-term) Blocking Peptide - Images

ACOX1 Antibody (N-term) Blocking Peptide - 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 (N-term) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Chu, R., et al., J. Biol. Chem. 270(9):4908-4915 (1995). Aoyama, T., et al., Biochem. Biophys. Res. Commun. 198(3):1113-1118 (1994). Fournier, B., et al., J. Clin. Invest. 94(2):526-531 (1994). Varanasi, U., et al., Proc. Natl. Acad. Sci. U.S.A. 91(8):3107-3111 (1994).