

Product datasheet for **AM33416PU-N**

ACOX1 Mouse Monoclonal Antibody [Clone ID: 153CT43.1.1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	153CT43.1.1
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/100-1/500. Immunofluorescence: 1/10-1/50. Immunohistochemistry on Paraffin Sections: 1/10-1/50.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	ACOX1 recombinant protein.
Specificity:	This antibody recognizes Human ACOX1. Other species not tested.
Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% (W/V) Sodium Azide
Concentration:	lot specific
Purification:	Protein G Chromatography, followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Database Link:	Entrez Gene 51 Human Q15067



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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.

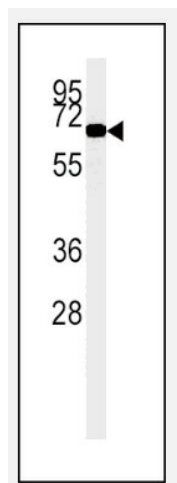
Function: Catalyzes the desaturation of acyl-CoAs to 2-trans- enoyl-CoAs. Isoform 1 shows highest activity against medium-chain fatty acyl-CoAs and activity decreases with increasing chain length. Isoform 2 is active against a much broader range of substrates and shows activity towards very long-chain acyl-CoAs. Isoform 2 is twice as active as isoform 1 against 16-hydroxy- palmitoyl-CoA and is 25% more active against 1,16-hexadecanodioyl- CoA.

Cellular Location: Peroxisome.

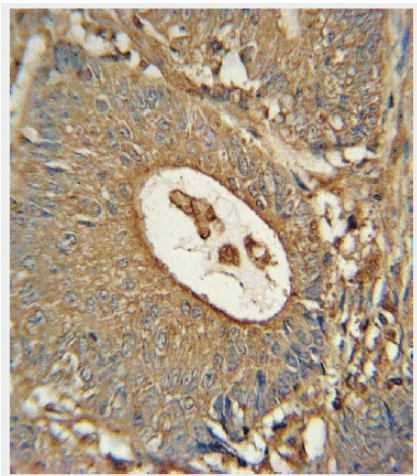
Tissue Location: Widely expressed with highest levels of isoform 1 and isoform 2 detected in testis. Isoform 1 is expressed at higher levels than isoform 2 in liver and kidney while isoform 2 levels are higher in brain, lung, muscle, white adipose tissue and testis. Levels are almost equal in heart.

Synonyms:

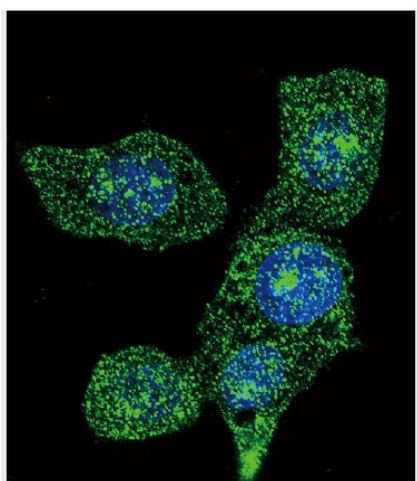
AOX, Palmitoyl-CoA oxidase, Straight-chain acyl-CoA oxidase

Product images:

Western blot analysis in K562 cell line lysates using ACOX1 Monoclonal Antibody (Clone 153CT43.1.1) (15ug/lane). This demonstrates the ACOX1 antibody detected the ACOX1 protein (arrow). (1 ug/ml)1:390



Immunohistochemistry analysis in Formalin Fixed and Paraffin Embedded human colon carcinomastained with ACOX1 Monoclonal Antibody (Clone 153CT43.1.1) followed by peroxidase conjugation of the secondary antibody and DAB staining.



Confocal immunofluorescent analysis of ACOX1 Monoclonal Antibody (Clone 153CT43.1.1) with HeLa cell followed by Alexa Fluor 488-conjugated goat anti-mouse IgG (green). DAPI was used to stain the cell nuclear (blue).