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ACOX2 Antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16093

Product Information

Application	WB
Primary Accession	Q99424
Other Accession	XP_005265562
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	76827

Additional Information

Gene ID	8309
Alias Symbol	ACOX2,
Other Names	Peroxisomal acyl-coenzyme A oxidase 2, 1.17.99.3, 3-alpha, 7-alpha, 12-alpha-trihydroxy-5-beta-cholestanoyl-CoA 24-hydroxylase, 3-alpha, 7-alpha, 12-alpha-trihydroxy-5-beta-cholestanoyl-CoA oxidase, Trihydroxycoprostanoyl-CoA oxidase, THCA-CoA oxidase, THCCox, ACOX2
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 &mu, l of distilled water. Final Anti-ACOX2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	ACOX2 Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACOX2 (HGNC:120)
Function	Involved in peroxisomal beta-oxidation of branched-chain fatty acids (BCFAs) and bile acids intermediates. Catalyzes the initial and rate-limiting dehydrogenation step that removes two hydrogen molecules and introduces a trans double bond between the alpha and beta carbons of the acyl CoA molecules while generating hydrogen peroxide as a by-product. Oxidizes its substrates in a stereospecific way and can only desaturate isomers carrying (2S)-methyl groups (By similarity) (PubMed:29287774). In brown adipose tissue peroxisomes, mediates beta- oxidation of monomethyl branched-chain fatty acids with iso configuration (mmBCFAs) as part of a substrate synthesis

	and oxidation cycle fueled by FASN-dependent de novo mmBCFA synthesis. The mmBCFA catabolism is coupled to AMPK activation and mitochondrial ATP production as a thermogenic adaptation mechanism to maintain the body temperature in cold environment (By similarity). Metabolizes multi-methyl-branched fatty acyl-CoA esters such as (2S)-pristanoyl-CoA, displaying redundancy with ACOX3 (PubMed:29287774). In the liver, mediates side-chain beta-oxidation of C27 bile acyl-CoA intermediates carrying a (25S)-methyl group to yield 24,25-trans unsaturated derivatives as part of peroxisomal bile acid synthesis pathway (PubMed:27884763, PubMed:29287774). Can oxidize straight-chain fatty acyl CoAs such as C10-CoA and C16-CoA with low efficiency (PubMed:29287774).
Cellular Location	Peroxisome
Tissue Location	Present in all tissues tested: heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Most abundant in heart, liver and kidney (at protein level)

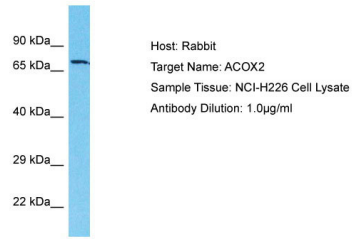
Background

Oxidizes the CoA esters of the bile acid intermediates di- and tri-hydroxycholestanoic acids.

References

Baumgart E.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:13748-13753(1996).
Fournier B.,et al.Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Muzny D.M.,et al.Nature 440:1194-1198(2006).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images



Host: Rabbit
Target Name: ACOX2
Sample Tissue: NCI-H226 Whole cell lysate
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Antibody Dilution: 1.0µg/ml

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