ACOX1 Antibody – Rabbit Monoclonal

PRODUCT OVERVIEW

Product Name	ACOX1, Monoclonal Antibody
Full Product Name	ACOX1 (ACOX, Peroxisomal acyl-coenzyme A oxidase 1, Palmitoyl-CoA oxidase, Straight-chain acyl-CoA oxidase) (MaxLight 550)
Product Gene Name	anti-ACOX1 antibody
Product Synonym Names	ACOX1; ACOX; Peroxisomal acyl-coenzyme A oxidase 1; Palmitoyl-CoA oxidase; Straight-chain acyl-CoA oxidase
Clonality	Monoclonal
Isotype	IgG
Clone Number	153CT43.1.1
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight550.
Purity/Purification	Purified by Protein G Affinity Chromatography
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight550 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	74,424 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (73937588..73975515, complement). Location: 17q25.1
3D Structure	ModBase 3D Structure for Q15067
Immunogen	ACOX1 Mab is generated from mouse immunized with ACOX1 recombinant protein.
Conjugate	MaxLight550
Product Categories/Family for anti-ACOX1 antibody	Antibodies; Enzymes; Oxidase
Applications Tested/Suitable for anti-ACOX1 antibody	FLISA, Immunofluorescence (IF), Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-ACOX1 antibody	FLISA: 1:1,000 IHC: 1:50-100 WB: 1:100-500 IF: 1:10-50 Applications are based on unconjugated antibody.
Related Product Information for anti-ACOX1 antibody	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.
Product References and Citations for anti-ACOX1 antibody	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)

Other Notes	Small volumes of anti-ACOX1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ACOX1 purchase	MBS6209865 is an antibody targeting ACOX1. Also known as ACOX1 (ACOX, Peroxisomal acyl-coenzyme A oxidase 1, Palmitoyl-CoA oxidase, Straight-chain acyl-CoA oxidase) (MaxLight 550). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACOX1. It may not necessarily be applicable to this product.

NCBI GI #	297206871
NCBI GeneID	51
NCBI Accession #	NP_009223.2
UniProt Primary Accession #	Q15067
UniProt Secondary Accession #	Q12863; Q15068; Q15101; Q16131; Q7Z3W5; Q9UD31; A8K6X8; A8KAA0; B4DK61; F5GYQ8
UniProt Related Accession #	Q15067
GenBank Nucleotide #	NM_007292
NCBI Official Full Name	Homo sapiens acyl-CoA oxidase 1, palmitoyl (ACOX1), transcript variant 2, mRNA
NCBI Official Synonym Full Names	acyl-CoA oxidase 1, palmitoyl
NCBI Official Symbol	ACOX1
NCBI Official Synonym Symbols	ACOX; SCOX; PALMCOX
UniProt Protein Name	Peroxisomal acyl-coenzyme A oxidase 1
UniProt Synonym Protein Names	Palmitoyl-CoA oxidase1 PublicationManual assertion based on opinion iniRef.5"Complete sequencing and characterization of 21,243 full-length human cDNAs."Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R., Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H., Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S. , Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M., Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E., Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T., Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O., Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M., Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S., Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S., Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O., Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H., Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B., Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y., Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T., Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y., Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S., Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T., Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M., Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T., Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R., Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.Nat. Genet. 36:40-45(2004) [PubMed] [Europe PMC] [Abstract]Cited for: NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORMS 1; 2 AND 3), VARIANT MET-312.
Protein Family	Peroxisomal acyl-coenzyme A oxidase
UniProt Gene Name	ACOX1
UniProt Synonym Gene Names	AOX1 PublicationManual assertion based on opinion iniRef.4; SCOX
NCBI Protein Information	peroxisomal acyl-coenzyme A oxidase 1; AOX; palmitoyl-CoA oxidase; straight-chain acyl-CoA oxidase; acyl-CoA oxidase, straight-chain; peroxisomal fatty acyl-CoA oxidase; acyl-Coenzyme A oxidase 1, palmitoyl

UniProt Comments for ACOX1	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.
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