

ACOX2 (L-17): sc-102289

BACKGROUND

ACOX2 (acyl-Coenzyme A oxidase 2), also known as BCOX, BRCOX, THCCox or BRCACOX, is a 681 amino acid protein that localizes to the peroxisome and belongs to the acyl-CoA oxidase family. Expressed in heart, kidney, liver, brain, lung, pancreas, placenta and skeletal muscle, ACOX2 functions as a branched-chain acyl-CoA oxidase that is involved in the degradation of bile acid intermediates and long branched fatty acids in peroxisomes. ACOX2 exists as a heterodimer and uses FAD as a cofactor to catalyze oxidation reactions. Defects in the gene encoding ACOX2 may be associated with Zellweger syndrome, an extremely rare congenital disorder that is characterized by the absence of peroxisomes and usually results in death before six months of age.

REFERENCES

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2. Baumgart, E., Vanhooren, J.C., Fransen, M., Mannaerts, G.P. and Van Veldhoven, P.P. 1996. Mammalian peroxisomal acyl-CoA oxidases. III. Molecular characterization of human branched chain fatty acyl-CoA oxidase. *Ann. N.Y. Acad. Sci.* 804: 678-679.
3. Baumgart, E., Vanhooren, J.C., Fransen, M., Marynen, P., Puype, M., Vandekerckhove, J., Leunissen, J.A., Fahimi, H.D., Mannaerts, G.P. and van Veldhoven, P.P. 1996. Molecular characterization of the human peroxisomal branched-chain acyl-CoA oxidase: cDNA cloning, chromosomal assignment, tissue distribution, and evidence for the absence of the protein in Zellweger syndrome. *Proc. Natl. Acad. Sci. USA* 93: 13748-13753.
4. Moghrabi, N.N., Naylor, S.L., Van Veldhoven, P.P., Baumgart, E., Dawson, D.B. and Bennett, M.J. 1997. Assignment of the human peroxisomal branched-chain acyl-CoA oxidase gene to chromosome 3p21.1-p14.2 by rodent/human somatic cell hybridization. *Biochem. Biophys. Res. Commun.* 231: 767-769.

CHROMOSOMAL LOCATION

Genetic locus: ACOX2 (human) mapping to 3p14.3.

SOURCE

ACOX2 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACOX2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACOX2 (L-17) is recommended for detection of ACOX2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with ACOX1 or ACOX3.

Suitable for use as control antibody for ACOX2 siRNA (h): sc-78421, ACOX2 shRNA Plasmid (h): sc-78421-SH and ACOX2 shRNA (h) Lentiviral Particles: sc-78421-V.

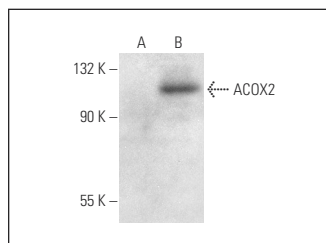
Molecular Weight of ACOX2: 77 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or ACOX2 (h): 293T Lysate: sc-116061.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACOX2 (L-17): sc-102289. Western blot analysis of ACOX2 expression in non-transfected: sc-117752 (A) and human ACOX2 transfected: sc-116061 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.