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SCP2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12517a

Product Information

Application	WB, IHC-P, E
Primary Accession	P22307
Other Accession	NP_001007101.1, NP_001007251.1, NP_001007100.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31279
Calculated MW	58994
Antigen Region	14-43

Additional Information

Gene ID	6342
Other Names	Non-specific lipid-transfer protein, NSL-TP, Propanoyl-CoA C-acyltransferase, SCP-chi, SCPX, Sterol carrier protein 2, SCP-2, Sterol carrier protein X, SCP-X, SCP2
Target/Specificity	This SCP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-43 amino acids from the N-terminal region of human SCP2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SCP2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SCP2 (HGNC:10606)
Function	[Isoform SCPx]: Plays a crucial role in the peroxisomal oxidation of branched-chain fatty acids (PubMed:10706581). Catalyzes the last step of the

peroxisomal beta-oxidation of branched chain fatty acids and the side chain of the bile acid intermediates di- and trihydroxycoprostanic acids (DHCA and THCA) (PubMed:10706581). Also active with medium and long straight chain 3-oxoacyl-CoAs. Stimulates the microsomal conversion of 7-dehydrocholesterol to cholesterol and transfers phosphatidylcholine and 7-dehydrocholesterol between membrances, in vitro (By similarity). Isoforms SCP2 and SCPx cooperate in peroxisomal oxidation of certain naturally occurring tetramethyl- branched fatty acyl-CoAs (By similarity).

Cellular Location [Isoform SCP2]: Peroxisome {ECO:0000250|UniProtKB:P32020}. Cytoplasm. Mitochondrion. Endoplasmic reticulum {ECO:0000250|UniProtKB:P32020}. Mitochondrion {ECO:0000250|UniProtKB:P32020}

Tissue Location Liver, fibroblasts, and placenta.

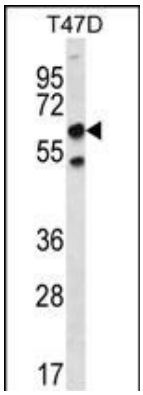
Background

This gene encodes two proteins: sterol carrier protein X (SCPx) and sterol carrier protein 2 (SCP2), as a result of transcription initiation from 2 independently regulated promoters. The transcript initiated from the proximal promoter encodes the longer SCPx protein, and the transcript initiated from the distal promoter encodes the shorter SCP2 protein, with the 2 proteins sharing a common C-terminus. Evidence suggests that the SCPx protein is a peroxisome-associated thiolase that is involved in the oxidation of branched chain fatty acids, while the SCP2 protein is thought to be an intracellular lipid transfer protein. This gene is highly expressed in organs involved in lipid metabolism, and may play a role in Zellweger syndrome, in which cells are deficient in peroxisomes and have impaired bile acid synthesis. Alternative splicing of this gene produces multiple transcript variants, some encoding different isoforms.

References

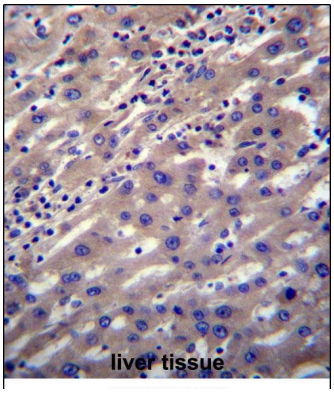
Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Rikova, K., et al. Cell 131(6):1190-1203(2007)
Dansen, T.B., et al. J. Lipid Res. 45(1):81-88(2004)

Images



SCP2 Antibody (N-term) (Cat. #AP12517a) western blot analysis in T47D cell line lysates (35ug/lane).This demonstrates the SCP2 antibody detected the SCP2 protein (arrow).

SCP2 Antibody (N-term) (Cat. #AP12517a)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SCP2 Antibody (N-term) for immunohistochemistry. Clinical



relevance has not been evaluated.