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SLC27A2 Rabbit pAb

Rabbit Polyclonal Antibody
Catalog # AP93288

Product Information

Application	E
Primary Accession	O14975
Reactivity	Mouse, Rat
Predicted	Human, Rabbit, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70312
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC27A2/ACSVL1
Epitope Specificity	401-500/620
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane; Multi-pass membrane protein. Peroxisome membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the ATP-dependent AMP-binding enzyme family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLC27A2 is an isozyme of long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes of this family convert free long chain fatty acids into fatty acyl-CoA esters, and thereby may play a key role in lipid biosynthesis and fatty acid degradation. This isozyme activates long-chain, branched-chain and very-long-chain fatty acids containing 22 or more carbons to their CoA derivatives.

Additional Information

Gene ID	11001
Other Names	ACSVL1; FACVL1; FATP 2; FATP2; Fatty acid coenzyme A ligase, very long chain 1; Fatty acid transport protein 2; hFACVL1; HsT17226; Long chain fatty acid CoA ligase; Solute carrier family 27 (fatty acid transporter), member 2; Solute carrier family 27 member 2; THCA CoA ligase; Very long chain acyl CoA synthetase; Very long chain fatty acid CoA ligase; Very long chain fatty acid coenzyme A ligase 1; VLACS; VLCS; S27A2_HUMAN.
Target/Specificity	Expressed in liver, kidney, placenta and pancreas.
Dilution	ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SLC27A2
Synonyms	ACSVL1, FACVL1, FATP2, VLACS
Function	Mediates the import of long-chain fatty acids (LCFA) into the cell by facilitating their transport across cell membranes, playing an important role in hepatic fatty acid uptake (PubMed:10198260, PubMed:10749848, PubMed:11980911, PubMed:20530735, PubMed:22022213, PubMed:24269233). Also functions as an acyl-CoA ligase catalyzing the ATP-dependent formation of fatty acyl-CoA using LCFA and very-long- chain fatty acids (VLCFA) as substrates, which prevents fatty acid efflux from cells and might drive more fatty acid uptake (PubMed:10198260, PubMed:10749848, PubMed:11980911, PubMed:20530735, PubMed:22022213, PubMed:24269233). Plays a pivotal role in regulating available LCFA substrates from exogenous sources in tissues undergoing high levels of beta-oxidation or triglyceride synthesis (PubMed:20530735). Can also activate branched-chain fatty acids such as phytanic acid and pristanic acid (PubMed:10198260). May contribute to the synthesis of sphingosine-1-phosphate (PubMed:24269233). Does not activate C24 bile acids, cholate and chenodeoxycholate (PubMed:11980911). In vitro, activates 3-alpha,7-alpha,12-alpha- trihydroxy-5-beta-cholestanate (THCA), the C27 precursor of cholic acid deriving from the de novo synthesis from cholesterol (PubMed:11980911). However, it is not critical for THCA activation and bile synthesis in vivo (PubMed:20530735).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Peroxisome membrane; Peripheral membrane protein. Cell membrane; Multi-pass membrane protein. Microsome
Tissue Location	[Isoform 1]: Expressed in liver, kidney, placenta, intestine, brain, heart, and colon (PubMed:10198260, PubMed:21768100, PubMed:24269233). Predominantly expressed in liver (PubMed:20530735)

Background

SLC27A2 is an isozyme of long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes of this family convert free long chain fatty acids into fatty acyl-CoA esters, and thereby may play a key role in lipid biosynthesis and fatty acid degradation. This isozyme activates long-chain, branched-chain and very-long-chain fatty acids containing 22 or more carbons to their CoA derivatives.