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SLC27A5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2264a

Product Information

Application	WB, IHC, E
Primary Accession	Q9Y2P5
Reactivity	Human, Mouse, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	9C4D1
Isotype	IgG1
Calculated MW	75385
Description	The protein encoded by this gene is an isozyme of very long-chain acyl-CoA synthetase (VLCS). It is capable of activating very long-chain fatty-acids containing 24- and 26-carbons. It is expressed in liver and associated with endoplasmic reticulum but not with peroxisomes. Its primary role is in fatty acid elongation or complex lipid synthesis rather than in degradation. This gene has a mouse ortholog.
Immunogen	Purified recombinant fragment of human SLC27A5 (AA: 508-570) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	10998
Other Names	Bile acyl-CoA synthetase, BACS, 6.2.1.7, Bile acid-CoA ligase, BA-CoA ligase, BAL, Cholate--CoA ligase, Fatty acid transport protein 5, FATP-5, Fatty-acid-coenzyme A ligase, very long-chain 3, Solute carrier family 27 member 5, Very long-chain acyl-CoA synthetase homolog 2, VLCS-H2, VLCSH2, Very long-chain acyl-CoA synthetase-related protein, VLACS-related, VLACSR, SLC27A5, ACSB, ACSVL6, FACVL3, FATP5
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC27A5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC27A5
Synonyms	ACSB, ACSVL6, FACVL3, FATP5
Function	May mediate the import of long-chain fatty acids (LCFA) by facilitating their transport across cell membranes (PubMed:20448275, PubMed:20530735). Also catalyzes the ATP-dependent formation of fatty acyl-CoA using LCFA and very-long-chain fatty acids (VLCFA) as substrates (PubMed:10479480). Mainly functions as a bile acyl-CoA synthetase catalyzing the activation of bile acids via ATP-dependent formation of bile acid CoA thioesters which is necessary for their subsequent conjugation with glycine or taurine (PubMed:10749848, PubMed:11980911). Both primary bile acids (cholic acid and chenodeoxycholic acid) and secondary bile acids (deoxycholic acid and lithocholic acid) are the principal substrates (PubMed:10749848, PubMed:11980911). In vitro, activates 3-alpha,7-alpha,12-alpha-trihydroxy-5-beta-cholestanate ((25R)-3alpha,7alpha,12alpha-trihydroxy-5beta-cholestan-26-oate or THCA), the C27 precursor of cholic acid deriving from the de novo synthesis from cholesterol (PubMed:11980911). Plays an important role in hepatic fatty acid uptake and bile acid reconjugation and recycling but not in de novo synthesis of bile acids (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Microsome {ECO:0000250|UniProtKB:Q9ES38}. Cell membrane {ECO:0000250|UniProtKB:Q4LDG0}; Multi-pass membrane protein
Tissue Location	Predominantly expressed in liver.

References

1.Horm Metab Res. 2010 Nov;42(12):854-9. 2.Mol Nutr Food Res. 2007 Feb;51(2):185-91.

Images

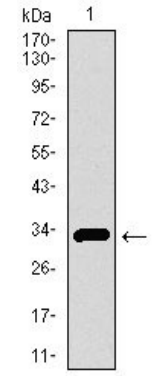

Figure 1: Western blot analysis using SLC27A5 mAb against human SLC27A5 recombinant protein. (Expected MW is 32.9 kDa)

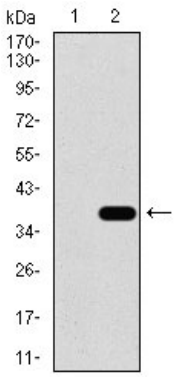

Figure 2: Western blot analysis using SLC27A5 mAb against HEK293 (1) and SLC27A5 (AA: 508-570)-hIgGFc transfected HEK293 (2) cell lysate.

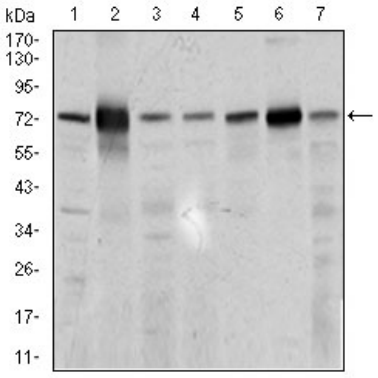

Figure 3: Western blot analysis using SLC27A5 mouse mAb against 3T3L1 (1), HepG2 (2), U937 (3), Raji (4), COS7 (5), NIH3T3 (6), and PC-3 (7) cell lysate.

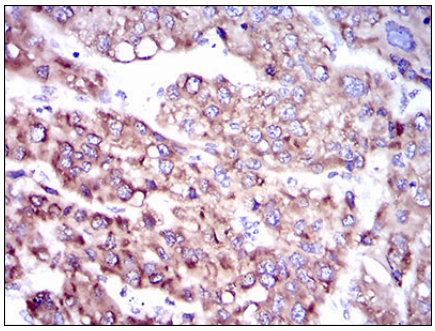

Figure 4: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using SLC27A5 mouse mAb with DAB staining.

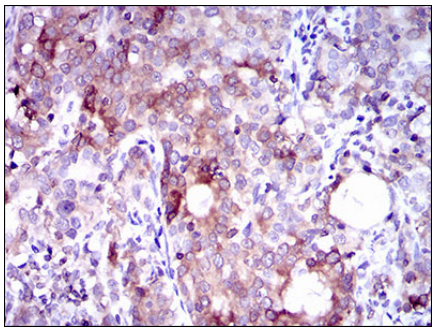

Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using SLC27A5 mouse mAb with DAB staining.