10320 Camino Santa Fe, Suite G
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SLC27A5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2262a

Specification

SLC27A5 Antibody - Product Information

Application	**E, WB, FC, IHC**
Primary Accession	Q9Y2P5
Reactivity	**Human, Mouse, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**75.4kDa KDa**

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.

SLC27A5 Antibody - 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
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

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.

SLC27A5 Antibody - 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

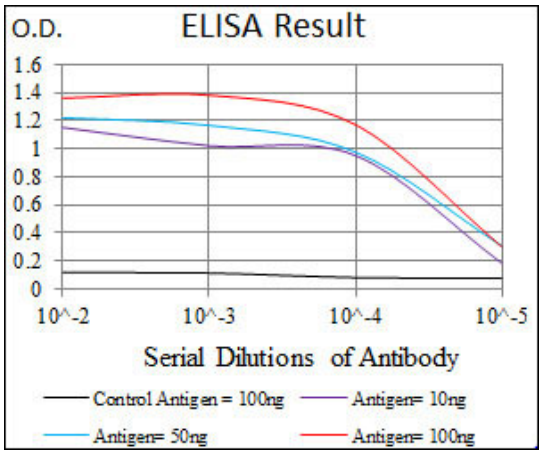
Tissue Location
Predominantly expressed in liver.

SLC27A5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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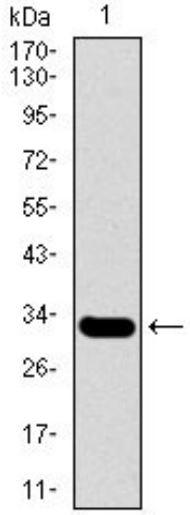


Figure 1: Western blot analysis using SLC27A5 mAb against human SLC27A5 recombinant protein. (Expected MW is 32.9 kDa)

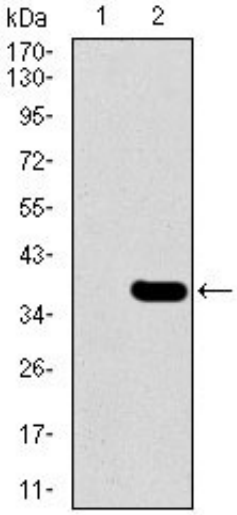


Figure 2: Western blot analysis using SLC27A5 mAb against HEK293 (1) and SLC27A5 (AA: 508-570)-hIgGFc transfected HEK293 (2) cell lysate.

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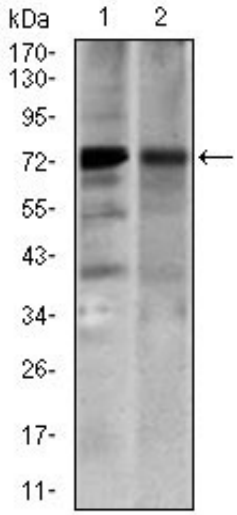


Figure 3: Western blot analysis using SLC27A5 mouse mAb against 3T3-L1 (1) and COS7 (2) cell lysate.

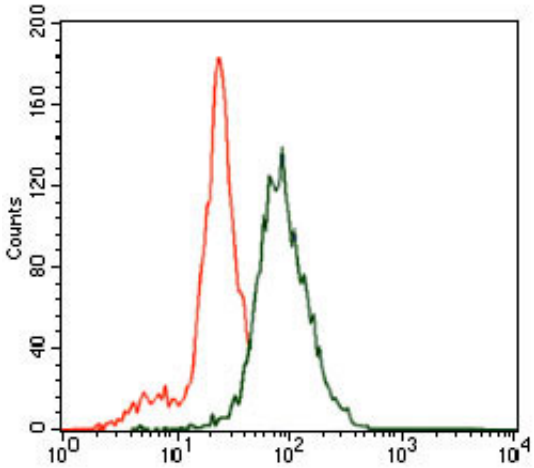


Figure 4: Flow cytometric analysis of SK-N-SH cells using SLC27A5 mouse mAb (green) and negative control (purple).

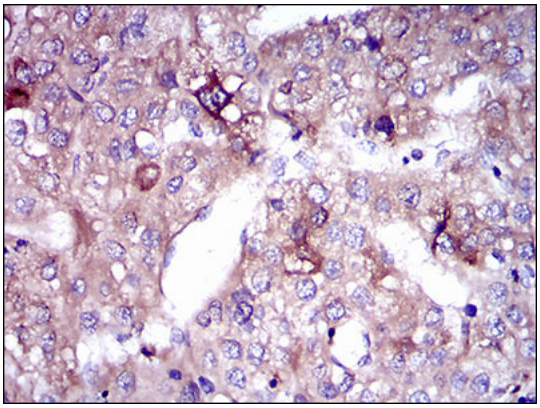


Figure 5: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using SLC27A5 mouse mAb with DAB staining.

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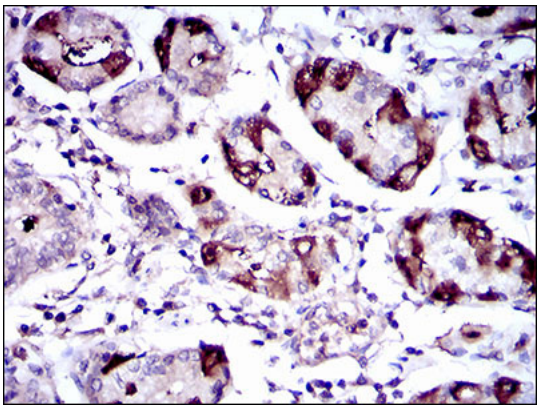


Figure 6: Immunohistochemical analysis of paraffin-embedded stomach tissues using SLC27A5 mouse mAb with DAB staining.

SLC27A5 Antibody - References

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