10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC27A1 Rabbit pAb

Catalog # AP97362

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6PCB7
Other Accession	Q6PCB7
Reactivity	Mouse
Predicted	Rat, Pig, Human, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	71108
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC27A1
Epitope Specificity	551-646/646
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the calponin family. Contains 3 calponin-like repeats. Contains 1 CH (calponin-homology) domain.
SUBUNIT	Self-associates. May function as a homodimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLC27A1 (Solute carrier family 27 member 1) is involved in translocation of long-chain fatty acids (LFCA) across the plasma membrane. SLC27A1 may act directly as a bona fide transporter, or alternatively, in a cytoplasmic or membrane-associated multimeric protein complex to trap and draw fatty acids towards accumulation. It also plays a pivotal role in regulating available LFCA substrates from exogenous sources in tissues undergoing high levels of beta-oxidation or triglyceride synthesis and may be involved in regulation of cholesterol metabolism.

Additional Information

Gene ID	376497
Other Names	ACSVL5; FATP; FATP-1; FATP1; Vlc27a1; S27A1_HUMAN; SLC27A1; Arachidonate--CoA ligase; Fatty acid transport protein 1 (FATP-1); Long-chain-fatty-acid--CoA ligase; Solute carrier family 27 member 1; Very long-chain acyl-CoA synthetase; S27A1_MOUSE; Fatty acid transport protein; Solute carrier family 27 member 1 (Vlc27a1); solute carrier family 27 (fatty acid transporter), member 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	SLC27A1 (HGNC:10995)
Synonyms	ACSVL5, FATP1
Function	Mediates the import of long-chain fatty acids (LCFA) into the cell by facilitating their transport at the plasma membrane (PubMed:12556534, PubMed:20530735, PubMed:21395585, PubMed:28178239). 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. May act directly as a bona fide transporter, or alternatively, in a cytoplasmic or membrane-associated multimeric protein complex to trap and draw fatty acids towards accumulation. Plays a pivotal role in regulating available LCFA substrates from exogenous sources in tissues undergoing high levels of beta-oxidation or triglyceride synthesis. May be involved in regulation of cholesterol metabolism (By similarity). Probably involved in fatty acid transport across the blood barrier (PubMed:21395585).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q60714}; Single-pass membrane protein {ECO:0000250|UniProtKB:Q60714} Endomembrane system {ECO:0000250|UniProtKB:Q60714}; Single-pass membrane protein {ECO:0000250|UniProtKB:Q60714}. Cytoplasm {ECO:0000250|UniProtKB:Q60714}. Note=Plasma membrane and intracellular membranes, at least in adipocytes. In adipocytes, but not myocytes, insulin via the mTORC1 signaling pathway induces a rapid translocation of SLC27A1 from intracellular compartments to the plasma membrane, paralleled by increased LCFA uptake. Insulin-dependent translocation from the cytoplasm to the cell membrane is regulated by EPRS1 Predominantly cytoplasmic in myocytes. {ECO:0000250|UniProtKB:Q60714}
Tissue Location	Highest levels of expression are detected in muscle and adipose tissue small, intermediate levels in small intestine, and barely detectable in liver (PubMed:10873384, PubMed:21395585) Expressed in brain gray matter (PubMed:21395585)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.