

**SLC27A1 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP17452b****Specification**

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**SLC27A1 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q6PCB7](#)**SLC27A1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 376497**Other Names**

Long-chain fatty acid transport protein 1, FATP-1, Fatty acid transport protein 1, 621-, Solute carrier family 27 member 1, SLC27A1, ACSVL5, FATP1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**SLC27A1 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/12556534), PubMed:[20530735](http://www.uniprot.org/citations/20530735), PubMed:[21395585](http://www.uniprot.org/citations/21395585), PubMed:[28178239](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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)

**SLC27A1 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**SLC27A1 Antibody (C-term) Blocking Peptide - Images****SLC27A1 Antibody (C-term) Blocking Peptide - Background**

Involved in translocation of long-chain fatty acids (LCFA) across the plasma membrane. The LCFA import appears to be hormone-regulated in a tissue-specific manner. In adipocytes, but not myocytes, insulin induces a rapid translocation of FATP1 from intracellular compartments to the plasma membrane, paralleled by increased LCFA 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. Has acyl-CoA ligase activity for long-chain and very-long-chain fatty acids (By similarity).

**SLC27A1 Antibody (C-term) Blocking Peptide - References**

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Guignard, T.J., et al. J. Biol. Chem. 285(24):18759-18768(2010)Uher, R., et al. Am J Psychiatry 167(5):555-564(2010)Ban, H.J., et al. BMC Genet. 11, 26 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)