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SLC27A4 Rabbit pAb

Catalog # AP98868

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q6P1M0
Other Accession	Q6P1M0
Predicted	Rat, Pig, Human, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	72064
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC27A4
Epitope Specificity	401-500/643
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SIMILARITY	Belongs to the ATP-dependent AMP-binding enzyme family.
DISEASE	Defects in SLC27A4 are the cause of ichthyosis prematurity syndrome (IPS) [MIM:608649]. A keratinization disorder characterized by complications in the second trimester of pregnancy resulting from polyhydramnion, with premature birth of a child with thick caseous desquamating epidermis, respiratory complications and transient eosinophilia. After recovery during the first months of life, the symptoms are relatively benign and the patients suffer from a lifelong non-scaly ichthyosis with atopic manifestations.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of a family of fatty acid transport proteins, which are involved in translocation of long-chain fatty acids cross the plasma membrane. This protein is expressed at high levels on the apical side of mature enterocytes in the small intestine, and appears to be the principal fatty acid transporter in enterocytes. Clinical studies suggest this gene as a candidate gene for the insulin resistance syndrome. Mutations in this gene have been associated with ichthyosis prematurity syndrome. [provided by RefSeq, Apr 2010]

Additional Information

Gene ID	10999
Other Names	ACSVL4; FATP4; IPS; S27A4_HUMAN; SLC27A4; FATP-4; Fatty acid transport protein 4; Arachidonate--CoA ligase; Long-chain-fatty-acid--CoA ligase; Solute carrier family 27 member 4; Very long-chain acyl-CoA synthetase 4 (ACSVL4); S27A4_MOUSE; solute carrier family 27 (fatty acid transporter), member 4; Long-chain fatty acid transport protein 4; acyl-CoA synthetase very long chain family member 4

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	SLC27A4 (HGNC:10998)
Function	Mediates the levels of long-chain fatty acids (LCFA) in the cell by facilitating their transport across cell membranes (PubMed:10518211, PubMed:12556534, PubMed:20448275, PubMed:21395585, PubMed:22022213). Appears to be the principal fatty acid transporter in small intestinal enterocytes (PubMed:20448275). 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:22022213, PubMed:24269233). Plays a role in the formation of the epidermal barrier. Required for fat absorption in early embryogenesis (By similarity). Probably involved in fatty acid transport across the blood barrier (PubMed:21395585). Indirectly inhibits RPE65 via substrate competition and via production of VLCFA derivatives like lignoceroyl-CoA. Prevents light-induced degeneration of rods and cones (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Expressed at highest levels in brain, testis, colon and kidney. Expressed at medium levels in heart and liver, small intestine and stomach. Expressed at low levels in peripheral leukocytes, bone marrow, skeletal muscle and aorta. Expressed in adipose tissue (PubMed:24269233, PubMed:9878842). Expressed in brain gray matter (PubMed:21395585).

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