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SLC25A20 Rabbit pAb

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Catalog # AP58130

Product Information

Application	WB
Primary Accession	O43772
Reactivity	Mouse
Predicted	Human, Rat, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32944
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC25A20
Epitope Specificity	101-200/301
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion inner membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the mitochondrial carrier (TC 2.A.29) family. Contains 3 Solcar repeats.
DISEASE	Carnitine-acylcarnitine translocase deficiency (CACT deficiency) [MIM:212138]: A rare long-chain fatty acid oxidation disorder. Metabolic consequences include hypoketotic hypoglycemia under fasting conditions, hyperammonemia, elevated creatine kinase and transaminases, dicarboxylic aciduria, very low free carnitine and abnormal acylcarnitine profile with marked elevation of the long-chain acylcarnitines. Clinical features include neurologic abnormalities, cardiomyopathy, arrhythmias, skeletal muscle damage, liver dysfunction and episodes of life-threatening coma, which eventually lead to death. Most patients become symptomatic in the neonatal period with a rapidly progressive deterioration and a high mortality rate. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLC25A20 is one of several closely related mitochondrial membrane carrier proteins that shuttle substrates between cytosol and the intramitochondrial matrix space. It mediates the transport of acylcarnitines into the mitochondrial matrix for their oxidation by the mitochondrial fatty acid oxidation pathway. Mutations in this gene are associated with carnitine acylcarnitine translocase deficiency, which can cause a variety of pathological conditions such as hypoglycemia, cardiac arrest, hepatomegaly, hepatic dysfunction and muscle weakness, and is usually lethal in new born and infants.

Additional Information

Gene ID	788
Other Names	Mitochondrial carnitine/acylcarnitine carrier protein, Carnitine/acylcarnitine translocase, CAC, CACT, Solute carrier family 25 member 20, SLC25A20 (HGNC:1421), CAC, CACT
Dilution	WB=1:500-2000
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	SLC25A20 (HGNC:1421)
Synonyms	CAC, CACT
Function	Mediates the electroneutral exchange of acylcarnitines (O- acyl-(R)-carnitine or L-acylcarnitine) of different acyl chain lengths (ranging from O-acetyl-(R)-carnitine to long-chain O-acyl-(R)- carnitines) with free carnitine ((R)-carnitine or L-carnitine) across the mitochondrial inner membrane, via a ping-pong mechanism (Probable) (PubMed:12892634, PubMed:18307102). Key player in the mitochondrial oxidation pathway, it translocates the fatty acids in the form of acylcarnitines into the mitochondrial matrix, where the carnitine palmitoyltransferase 2 (CPT-2) activates them to undergo fatty acid beta-oxidation (Probable). Catalyzes the unidirectional transport (uniport) of carnitine at lower rates than the antiport (exchange) (PubMed:18307102).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein

Background

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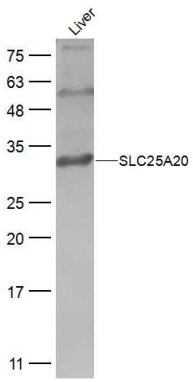
Images



Sample:
Liver (Mouse) Lysate at 40 ug
Primary: Anti-SLC25A20 (AP58130) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 33 kD
Observed band size: 33 kD