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OXCT1 Rabbit pAb

Catalog # AP99767

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P55809
Other Accession	P55809
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56158
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human OXCT1
Epitope Specificity	211-310/520
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 3-oxoacid CoA-transferase family.
DISEASE	Defects in OXCT1 are a cause of SCOT deficiency (SCOTD) [MIM:245050].
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Key enzyme for ketone body catabolism. Transfers the CoA moiety from succinate to acetoacetate. Formation of the enzyme-CoA intermediate proceeds via an unstable anhydride species formed between the carboxylate groups of the enzyme and substrate.

Additional Information

Gene ID	5019
Other Names	OXCT; SCOT; 2610008O03Rik; Oxct2a; Scot-s; SCOT1_HUMAN; OXCT1; 3-oxoacid CoA-transferase 1; Somatic-type succinyl-CoA:3-oxoacid CoA-transferase (SCOT-s); Succinyl-CoA:3-oxoacid CoA transferase; 2.8.3.5; SCOT1_MOUSE; SCOT1_RAT; 3-oxoacid CoA transferase; 3-oxoacid CoA transferase 1; Succinyl-CoA:3-ketoacid-CoA transferase
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=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	OXCT1
Synonyms	OXCT, SCOT
Function	Key enzyme for ketone body catabolism. Catalyzes the first, rate-limiting step of ketone body utilization in extrahepatic tissues, by transferring coenzyme A (CoA) from a donor thiolester species (succinyl-CoA) to an acceptor carboxylate (acetoacetate), and produces acetoacetyl-CoA. Acetoacetyl-CoA is further metabolized by acetoacetyl- CoA thiolase into two acetyl-CoA molecules which enter the citric acid cycle for energy production (PubMed:10964512). Forms a dimeric enzyme where both of the subunits are able to form enzyme-CoA thiolester intermediates, but only one subunit is competent to transfer the CoA moiety to the acceptor carboxylate (3-oxo acid) and produce a new acyl- CoA. Formation of the enzyme-CoA intermediate proceeds via an unstable anhydride species formed between the carboxylate groups of the enzyme and substrate (By similarity).
Cellular Location	Mitochondrion {ECO:0000250|UniProtKB:B2GV06}.
Tissue Location	Abundant in heart, followed in order by brain, kidney, skeletal muscle, and lung, whereas in liver it is undetectable Expressed (at protein level) in all tissues (except in liver), most abundant in myocardium, then brain, kidney, adrenal glands, skeletal muscle and lung; also detectable in leukocytes and fibroblasts

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