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SFXN1 Rabbit pAb

Catalog # AP97995

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9H9B4
Other Accession	Q9H9B4
Predicted	Rat, Pig, Human, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35619
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SFXN1
Epitope Specificity	51-150/322
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 sideroflexin family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The sideroflexin (SFXN) family is comprised of SFXN1, SFXN2, SFXN3, SFXN4 and SFXN5. SFXN1, also designated tricarboxylate carrier protein TCC, is the most highly characterized family member. The ubiquitously expressed SFXN1 protein resides as an integral protein of the mitochondrial inner membrane. It functions as an essential component of the shuttle system that transports mitochondrial acetyl-CoA into the cytosol, where lipogenesis occurs. The SFXN1 gene is mutated in flexed-tail (f/f) mice, which display axial skeletal abnormalities and a transient embryonic and neonatal anemia characterized by pathologic intramitochondiral iron deposits in erythrocytes. Therefore, SFXN1 is also thought to facilitate the transport of a component required for iron utilization into mitochondria. All SFXN family members show expression in pancreatic islet cells. SFXN5 displays a citrate transport activity and is primarily expressed in brain.

Additional Information

Gene ID	94081
Other Names	SLC56A1; TCC; 2810002O05Rik; A930015P12Rik; SLC64A1; SFXN1_HUMAN; SFXN1; SFXN1_MOUSE; SFXN1_RAT; Tricarboxylate carrier protein (TCC); sideroflexin 1
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	SFXN1 (HGNC:16085)
Function	Amino acid transporter importing serine, an essential substrate of the mitochondrial branch of the one-carbon pathway, into mitochondria. Mitochondrial serine is then converted to glycine and formate, which exits to the cytosol where it is used to generate the charged folates that serve as one-carbon donors (PubMed:30442778). May also transport other amino acids including alanine and cysteine (PubMed:30442778).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein
Tissue Location	Highly expressed in tissues with high one-carbon metabolism activity, such as blood, liver and kidney

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