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CRLS1 Rabbit pAb

Catalog # AP98783

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UJA2
Other Accession	Q9UJA2
Reactivity	Rat
Predicted	Pig, Human, Mouse, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32593
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CRLS1
Epitope Specificity	201-301/301
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 CDP-alcohol phosphatidyltransferase class-I family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cardiolipin synthetase is a mitochondrial protein that belongs to the CDP-alcohol phosphatidyltransferase class-I family. CLS1 is a multi-pass membrane protein localized to the inner membrane of mitochondria. CLS1 is responsible for the catalyzing the reversible transfer of a phosphatidyl group from one phosphatidyl glycerol molecule to another. This process results in the formation of cardiolipin (CL, or diphosphatidyl glycerol) and glycerol. Diphosphatidyl glycerol is a major component of the mitochondrial membrane and constitutes roughly 20% of total mitochondrial lipids. Having four fatty acid tails rather than the usual two, CL is a double phospholipid that is synthesized in the mitochondrion itself. Defects in the CRLS1 gene are likely to effect metabolism, sustained production of ATP and could contribute to diseases such as Barth syndrome.

Additional Information

Gene ID	54675
Other Names	C20orf155; CLS; CLS1; COSPD57; GCD10; dJ967N21.6; CRLS1_HUMAN; CRLS1; Protein GCD10 homolog; 2.7.8.41; cardiolipin synthase 1; chromosome 20 open reading frame 155; GCD10 homolog (S. cerevisiae)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	CRLS1
Synonyms	C20orf155, CLS1
Function	Catalyzes the synthesis of cardiolipin (CL) (diphosphatidylglycerol) by specifically transferring a phosphatidyl group from CDP-diacylglycerol to phosphatidylglycerol (PG) (PubMed:16547353, PubMed:16678169, PubMed:16716149, PubMed:35147173). CL is a key phospholipid in mitochondrial membranes and plays important roles in maintaining the functional integrity and dynamics of mitochondria under both optimal and stress conditions (PubMed:35147173).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein
Tissue Location	Highly expressed in tissues such as heart, skeletal muscle and liver.

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