

For Research Use Only

# CRLS1-Specific Polyclonal antibody



Catalog Number: 14845-1-AP

Featured Product

10 Publications

## Basic Information

<b>Catalog Number:</b> 14845-1-AP	<b>GenBank Accession Number:</b> NM_019095	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 400 µg/ml by Nanodrop and 300 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 54675	<b>Recommended Dilutions:</b> WB 1:500-1:3000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> cardiolipin synthase 1	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 33 kDa	
	<b>Observed MW:</b> 32 kDa	

## Applications

**Tested Applications:**  
IHC, WB, ELISA

**Cited Applications:**  
WB

**Species Specificity:**  
human

**Cited Species:**  
human, rat, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** A549 cells, HEK-293T cells, HepG2 cells, Jurkat cells

**IHC:** human heart tissue, human liver cancer tissue, human skeletal muscle tissue

## Background Information

Cardiolipin (CL) is a mitochondrial-specific double negatively charged phospholipid which is intricately involved in regulating bioenergetic efficiency. In eukaryotes, CL is synthesized by cardiolipin synthase (CRLS1 or CLS1) which catalyzes the reversible phosphatidyl group transfer from one phosphatidylglycerol molecule to another to form CL and glycerol. Recently it has been reported that transgenic expression of CRLS1 accelerates cardiolipin remodeling, improves mitochondrial function, modulates mitochondrial signaling, and attenuates mitochondrial dysfunction during diabetes, thereby identifying CRLS1 as a novel therapeutic target to attenuate mitochondrial dysfunction in diabetic myocardium. The predicted molecular weight of CRLS1 is around 32-35 kDa, while a 50 kDa protein with CRLS1 activity had been observed in liver isolation, which may represent an isoform of CRLS1 (20652826).

## Notable Publications

Author	Pubmed ID	Journal	Application
Laure Peyta	26327596	Biochim Biophys Acta	WB
Lei Wu	33129969	J Nutr Biochem	WB
Mushfiquddin Khan	34100455	Neural Regen Res	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

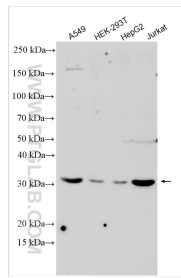
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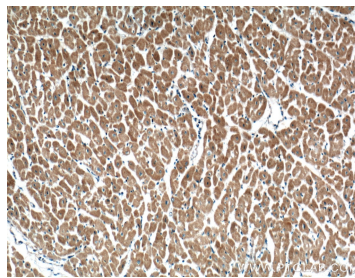
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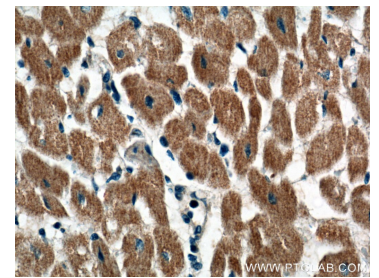
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 14845-1-AP (CRLS1-Specific antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 14845-1-AP (CRLS1-Specific Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 14845-1-AP (CRLS1-Specific Antibody) at dilution of 1:200 (under 40x lens).