

For Research Use Only

# CRLS1 Polyclonal antibody

Catalog Number: 51055-1-AP

Featured Product

2 Publications



## Basic Information

### Catalog Number:

51055-1-AP

### Size:

150ul, Concentration: 300 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### GenBank Accession Number:

BC069010

### GeneID (NCBI):

54675

### UNIPROT ID:

Q9UJA2

### Full Name:

cardiolipin synthase 1

### Calculated MW:

301 aa, 32 kDa

### Observed MW:

50 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:200-1:1000

IHC 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, ELISA

### Cited Applications:

WB

### Species Specificity:

human, mouse

### Cited Species:

mouse

### Positive Controls:

WB : mouse heart tissue,

IHC : human heart tissue, human breast cancer tissue, mouse heart tissue

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

## 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
Li Chen	35313046	Hepatology	WB
Hongming Su	37872178	Nat Commun	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

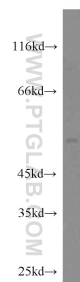
For technical support and original validation data for this product please contact:

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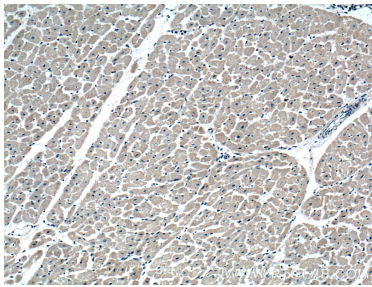
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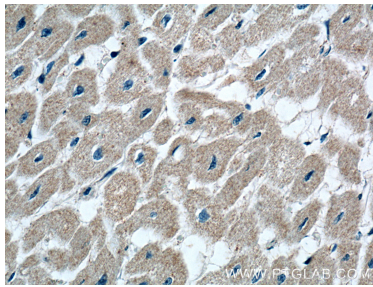
## Selected Validation Data



mouse heart tissue were subjected to SDS PAGE followed by western blot with 51055-1-AP (CRLS1 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 51055-1-AP (CRLS1 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 51055-1-AP (CRLS1 Antibody) at dilution of 1:200 (under 40x lens).