

For Research Use Only

# P5CS Polyclonal antibody

Catalog Number: 17719-1-AP

Featured Product

21 Publications



## Basic Information

### Catalog Number:

17719-1-AP

### Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG12100

### GenBank Accession Number:

BC106054

### GeneID (NCBI):

5832

### UNIPROT ID:

P54886

### Full Name:

aldehyde dehydrogenase 18 family, member A1

### Calculated MW:

795 aa, 87 kDa

### Observed MW:

87 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:2000-1:16000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC, IF, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

### Positive Controls:

WB: HEK-293T cells, mouse brain tissue, HeLa cells, HepG2 cells, MCF-7 cells, rat brain tissue

IP: mouse brain tissue,

IHC: human breast cancer tissue,

IF/ICC: A431 cells,

**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

Delta 1-pyrroline-5-carboxylate synthetase (P5CS), also named as GSAS, P5CS, PYCS, catalyzes the ATP and the NAD(P)H-dependent conversion of L-glutamate to glutamic gamma-semialdehyde (GSA) which is the metabolic precursor for proline biosynthesis (PMID:8761662). This protein includes 2 domains: glutamate 5-kinase and gamma-glutamyl phosphate reductase. In the N-terminal section, it belongs to the glutamate 5-kinase family and in the C-terminal section, it belongs to the gamma-glutamyl phosphate reductase family. Defects in ALDH18A1 are the cause of cutis laxa, autosomal recessive, type 3A (ARCL3A) (PMID:18478038). It has 2 isoforms produced by alternative splicing.

## Notable Publications

Author	Pubmed ID	Journal	Application
Wei Liu	26598224	Sci Rep	WB
Emily J Kay	35760868	Nat Metab	WB
Chunhong Cui	34283311	Amino Acids	WB, IHC

## 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

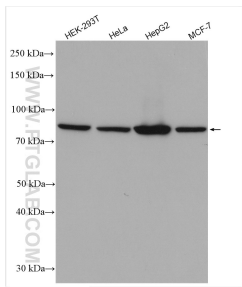
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

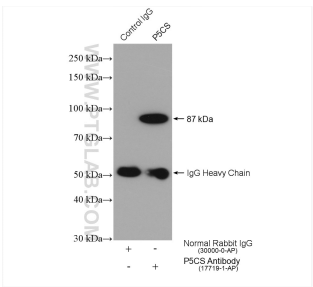
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

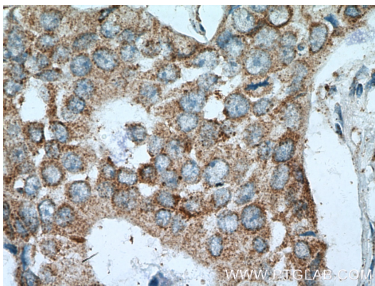
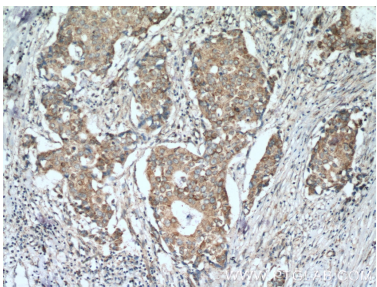
## Selected Validation Data



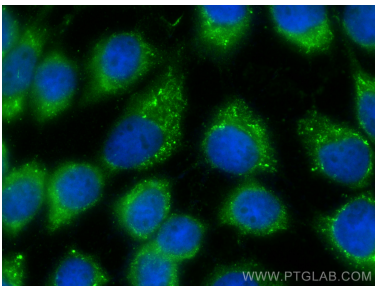
Various lysates were subjected to SDS PAGE followed by western blot with 17719-1-AP (P5CS antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



IP result of anti-P5CS (IP:17719-1-AP, 4ug; Detection:17719-1-AP 1:1000) with mouse brain tissue lysate 1600 ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 17719-1-AP (P5CS antibody at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed A431 cells using P5CS antibody (17719-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).