

For Research Use Only

# P5CS Recombinant monoclonal antibody

Catalog Number:87037-1-RR



## Basic Information

<b>Catalog Number:</b> 87037-1-RR	<b>GenBank Accession Number:</b> BC106054	<b>Purification Method:</b> Protein A purification
<b>Source:</b> Rabbit	<b>GeneID (NCBI):</b> 5832	<b>CloneNo.:</b> 252125B12
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> P54886	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000 IHC: 1:500-1:2000 IF/ICC: 1:250-1:1000
<b>Immunogen Catalog Number:</b> AG12100	<b>Full Name:</b> aldehyde dehydrogenase 18 family, member A1	
	<b>Calculated MW:</b> 795 aa, 87 kDa	
	<b>Observed MW:</b> 75-87 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human, mouse, rat

**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:** HeLa cells, mouse colon tissue, rat colon tissue, HepG2 cells, HEK-293T cells, NIH/3T3 cells, mouse brain tissue

**IHC:** rat brain tissue,

**IF/ICC:** HeLa cells,

## Background Information

Delta 1-pyrroline-5-carboxylate synthetase (P5CS), also named as GSAS and 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.

## Storage

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

**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

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

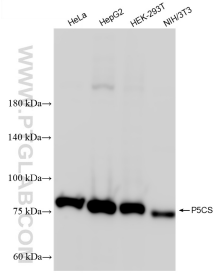
T: 4006900926

E: Proteintech-CN@ptglab.com

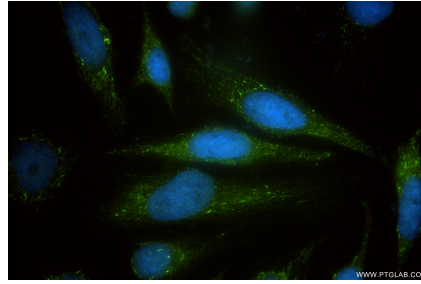
W: ptgcn.com

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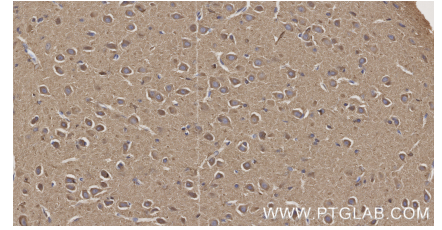
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 87037-1-RR (P5CS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using P5CS antibody (87037-1-RR, Clone: 252125B12 ) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 87037-1-RR (P5CS antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).