

For Research Use Only

# P5CS Recombinant monoclonal antibody, PBS Only (Detector)

Catalog Number:87037-1-PBS



## Basic Information

<b>Catalog Number:</b> 87037-1-PBS	<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>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, Sandwich ELISA, Indirect ELISA

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

## 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 -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**  
PBS only, pH7.3

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

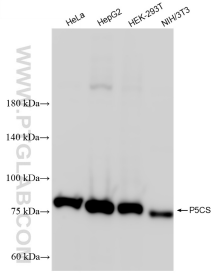
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

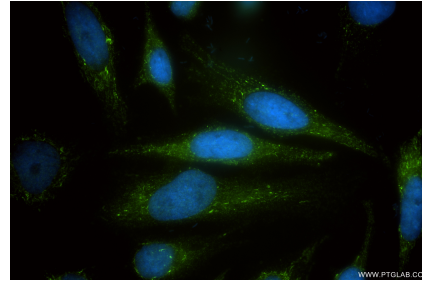
W: [ptgcn.com](http://ptgcn.com)

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

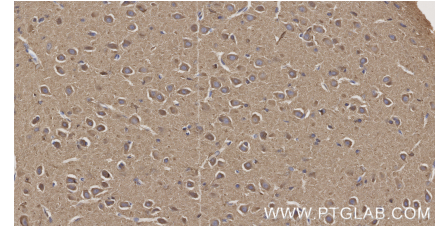
## Selected Validation Data



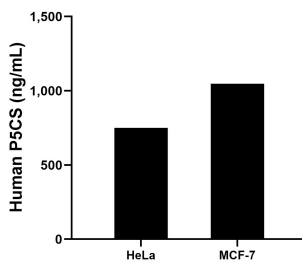
Various lysates were subjected to SDS PAGE followed by western blot with 87037-1-RR (P5CS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87037-1-PBS in a different storage buffer formulation.



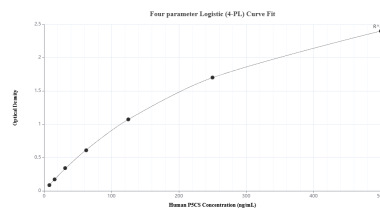
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using P5CS antibody (87037-1-RR, Clone: 252125B12) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87037-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 87037-1-PBS in a different storage buffer formulation.



The mean P5CS concentration was determined to be 749.95 ng/mL in HeLa cell extract based on a 1.2 mg/mL extract load and 1,046.66 ng/mL in MCF-7 cell extract based on a 1.2 mg/mL extract load.



Sandwich ELISA standard curve of MP02872-1, Human GNAS Recombinant Matched Antibody Pair - PBS only. 87037-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag12100. 87037-1-PBS was HRP conjugated as the detection antibody. Range: 7.81-500 ng/mL