

For Research Use Only

P5CS Recombinant monoclonal antibody, PBS Only (Detector)

Catalog Number: 87037-1-PBS



Basic Information

Catalog Number: 87037-1-PBS	GenBank Accession Number: BC106054	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 5832	CloneNo.: 252125B12
Source: Rabbit	UNIPROT ID: P54886	
Isotype: IgG	Full Name: aldehyde dehydrogenase 18 family, member A1	
Immunogen Catalog Number: AG12100	Calculated MW: 795 aa, 87 kDa	
	Observed MW: 75-87 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, Sandwich ELISA, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

87037-1-PBS targets P5CS as part of a matched antibody pair:

MP02872-1: 87037-2-PBS capture and 87037-1-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

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

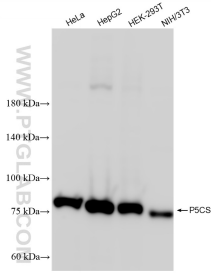
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

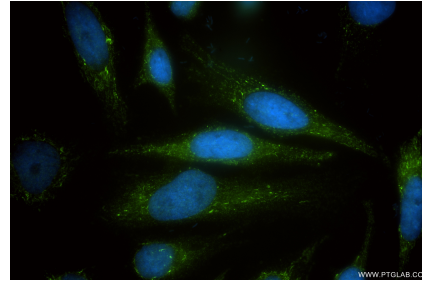
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

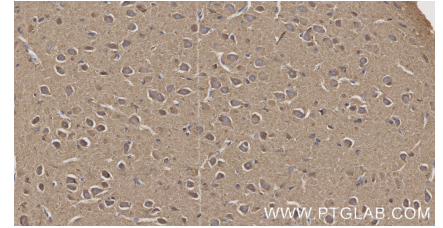
Selected Validation Data



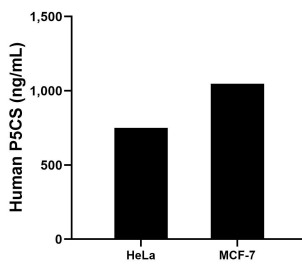
Various lysates were subjected to SDS PAGE followed by western blot with 87037-1-RR (P5CS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87037-1-PBS in a different storage buffer formulation.



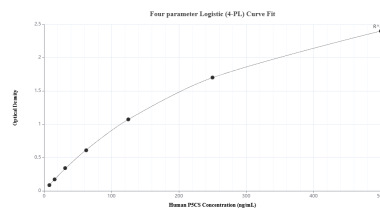
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using P5CS antibody (87037-1-RR, Clone: 252125B12) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87037-1-PBS in a different storage buffer formulation.



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