For Research Use Only

P5CS Polyclonal antibody

Catalog Number:17719-1-AP Featured Product 40 Publications

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Basic Information

Catalog Number:
17719-1-AP

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: 1:300-1:1200
IF/ICC: 1:200-1:800

Applications

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

Cited Applications:
WB, IHC, IF, CoIP, RIP

Species Specificity:
human, mouse, rat

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

IP : mouse brain tissue,

IHC : human liver cancer tissue, mouse brain tissue

IF/ICC : A431 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.

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

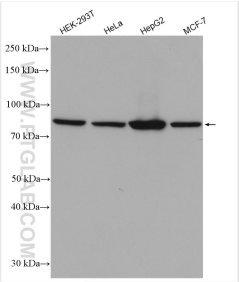
Storage

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

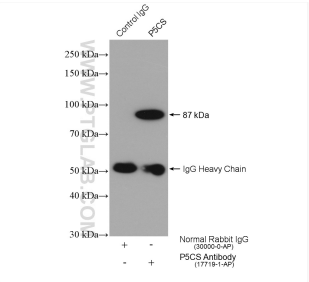
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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

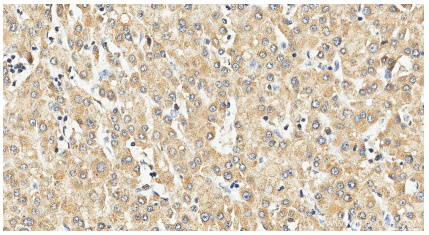
Selected Validation Data



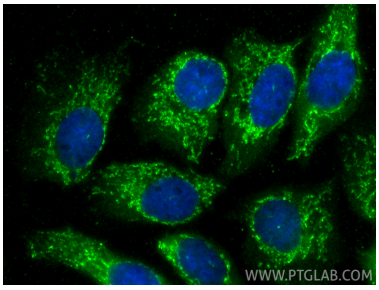
Various lysates were subjected to SDS PAGE followed by western blot with 17719-1-AP (P5CS antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



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 liver cancer tissue slide using 17719-1-AP (P5CS antibody) at dilution of 1:600 (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 Goat Anti-Rabbit IgG(H+L) (SA00013-2).