

For Research Use Only

# Glutamine Synthetase Polyclonal antibody

Catalog Number: 11037-2-AP

Featured Product

35 Publications



## Basic Information

### Catalog Number:

11037-2-AP

### Size:

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

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1510

### GenBank Accession Number:

BC011700

### GeneID (NCBI):

2752

### UNIPROT ID:

P15104

### Full Name:

glutamate-ammonia ligase (glutamine synthetase)

### Calculated MW:

374 aa, 42 kDa

### Observed MW:

40-42 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-P 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF-P, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, ELISA

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

### Positive Controls:

WB: HeLa cells, Jurkat cells, mouse liver tissue, rat liver tissue

IP: mouse liver tissue,

IHC: mouse liver tissue,

IF-P: mouse liver tissue, human brain tissue, mouse eye tissue

**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

GLUL (Glutamine synthetase) is also named as GS, GLNS and belongs to the glutamine synthetase family. This enzyme has 2 functions: it catalyzes the production of glutamine and 4-aminobutanoate (gamma-aminobutyric acid, GABA), the latter in a pyridoxal phosphate-independent manner. By similarity, Essential for proliferation of fetal skin fibroblasts (PMID:18662667). Defects in GLUL are the cause of congenital systemic glutamine deficiency (CSGD). Organismal glutamine production is augmented secondary to an increase in the activity of glutamine synthetase in the lung and skeletal muscle (PMID:7630137). There are other bands with higher (66 kDa, 97 kDa) and lower (30 kDa) molecular weights also detected besides the 42 kDa band indicating the proteolysis of GLUL protein by the ubiquitin system (PMID:10091759).

## Notable Publications

Author	Pubmed ID	Journal	Application
Hui Zhang	32946868	Eur J Pharmacol	WB
Si Chen	33061920	Front Psychiatry	WB
Pengyi Zhou	36260151	J Mol Histol	WB

## 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

\*\*\* 20ul sizes contain 0.1% BSA

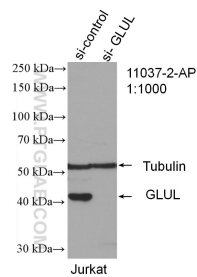
For technical support and original validation data for this product please contact:

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

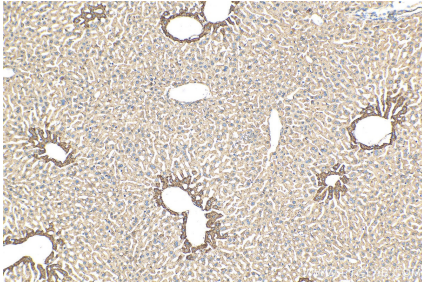
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

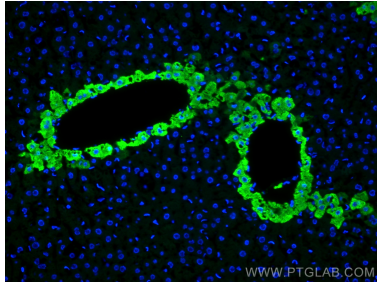
Selected Validation Data



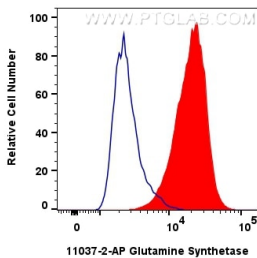
WB result of Glutamine synthetase antibody (11037-2-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Glutamine synthetase transfected Jurkat cells.



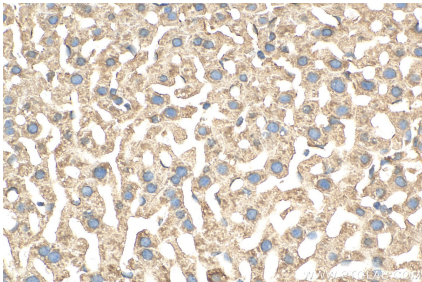
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 11037-2-AP (Glutamine Synthetase antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



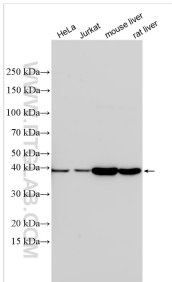
Immunofluorescent analysis of (4% PFA) fixed mouse liver tissue using Glutamine Synthetase antibody (11037-2-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



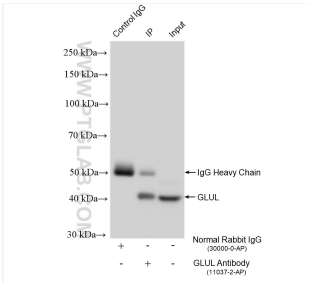
1x10<sup>6</sup> Jurkat cells were intracellularly stained with 0.4 ug Glutamine Synthetase Polyclonal antibody (11037-2-AP)(red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



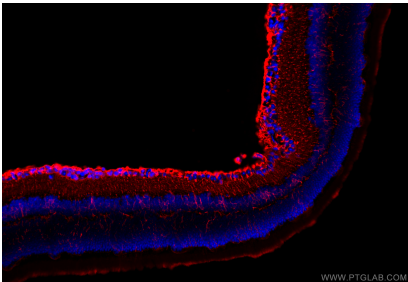
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 11037-2-AP (Glutamine Synthetase antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 11037-2-AP (Glutamine Synthetase antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



IP result of anti-Glutamine Synthetase (IP:11037-2-AP, 4ug; Detection:11037-2-AP 1:5000) with mouse liver tissue lysate 2400 ug.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse eye tissue using Glutamine Synthetase antibody (11037-2-AP) at dilution of 1:200 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).