For Research Use Only

Glutamine Synthetase Polyclonal antibody

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Catalog Number:11037-2-AP Featured Product 27 Publications

Basic Information

Catalog Number:
11037-2-AP

Size:
500 μg/ml

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 1:1000-1:6000
IHC 1:50-1:500
IF 1:50-1:500

Applications

Tested Applications:
WB, IF-P, FC, IHC, ELISA

Cited Applications:
WB, IP, IF, IHC, ELISA

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse

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 : Jurkat cells, mouse liver tissue, rat liver tissue

IHC : mouse liver tissue,

IF : mouse liver tissue, mouse brain tissue, human brain tissue

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 pH 7.3.
Aliquoting is unnecessary for -20°C storage

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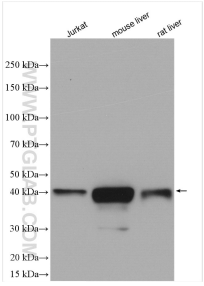
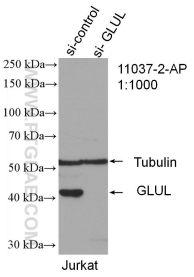
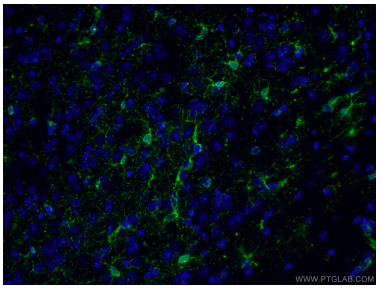
Selected Validation Data



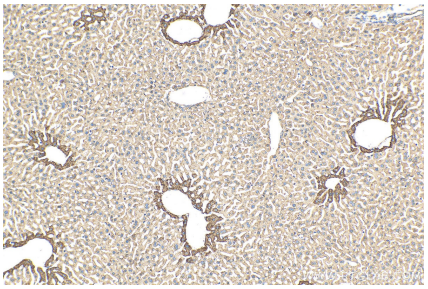
Jurkat cells were subjected to SDS PAGE followed by western blot with 11037-2-AP (Glutamine Synthetase antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



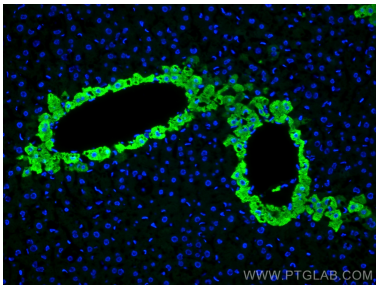
WB result of Glutamine synthetase antibody (11037-2-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Glutamine synthetase transfected Jurkat cells.



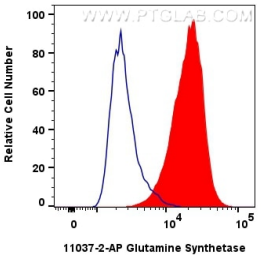
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 11037-2-AP (Glutamine synthetase antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



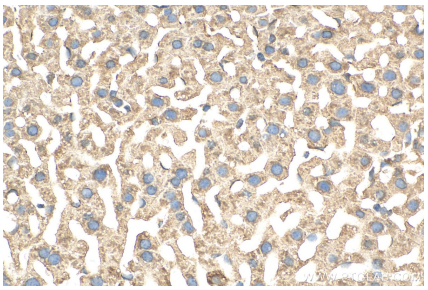
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 11037-2-AP (Glutamine Synthetase antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



1x10^6 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 (30000-0-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).