

For Research Use Only

Glutamine Synthetase Monoclonal antibody

Catalog Number: 66323-1-Ig

Featured Product

8 Publications



Basic Information

Catalog Number:

66323-1-Ig

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG6309

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:

42 kDa

Purification Method:

Protein A purification

CloneNo.:

1D10G8

Recommended Dilutions:

WB 1:1000-1:8000

IHC 1:50-1:500

IF 1:250-1:1000

Applications

Tested Applications:

WB, IF, P, IHC, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, pig, zebrafish

Cited Species:

human, mouse, rat, zebrafish

**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, pig liver tissue, pig brain tissue

IHC : human liver cancer tissue, human brain tissue

IF : zebrafish retina, 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
Emily-Rose Martin	36339621	Front Pharmacol	WB
Qizhi Wang	36216131	Pharmacol Res	WB
Matthew J Broadhead	35305541	Acta Neuropathol	IF

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:

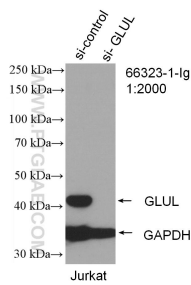
T: 4006900926

E: Proteintech-CN@ptglab.com

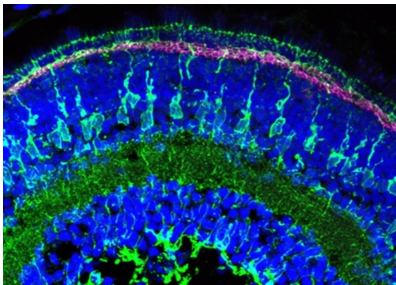
W: ptgcn.com

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

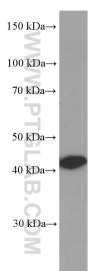
Selected Validation Data



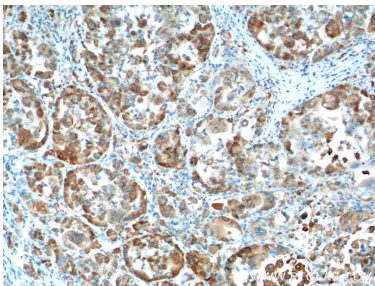
WB result of Glutamine synthetase antibody (66323-1-Ig; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Glutamine synthetase transfected Jurkat cells.



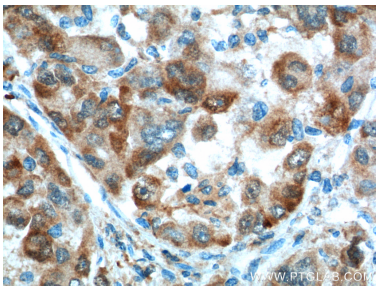
Immunofluorescence analysis of the zebrafish retina at 5 days post fertilisation. Collagen18a1 (aka Endostatin) polyclonal antibody (18301-1-AP, magenta). Dilution 1:200. Glutamine synthetase (66323-1-Ig, green) dilution 1:500. Tissue fixed overnight in 4% PFA; DAPI, blue. Data generated by Natalia Jaroszynska in Professor Ryan MacDonald's lab, University College London, UK.



Jurkat cells were subjected to SDS PAGE followed by western blot with 66323-1-Ig (Glutamine synthetase Antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66323-1-Ig (Glutamine synthetase Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66323-1-Ig (Glutamine synthetase Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).