

For Research Use Only

# KGA/GAC Polyclonal antibody

Catalog Number: 12855-1-AP

Featured Product

113 Publications



## Basic Information

### Catalog Number:

12855-1-AP

### Size:

150ul, Concentration: 550 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG3505

### GenBank Accession Number:

BC038507

### GeneID (NCBI):

2744

### UNIPROT ID:

O94925

### Full Name:

glutaminase

### Calculated MW:

669 aa, 73 kDa

### Observed MW:

58 kDa, 65 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, bovine, cat

**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: mouse brain tissue, A549 cells, COLO 320 cells, HEK-293 cells, mouse kidney tissue, rat brain tissue, rat liver tissue

IP: mouse brain tissue,

IHC: human gliomas tissue, human kidney tissue, human brain tissue

IF/ICC: L02 cells,

FC (Intra): HeLa cells,

## Background Information

GLS, also named as GLS1 and KIAA0838, belongs to the glutaminase family. It catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine. Glutaminase-, glutamate-, and taurine-immunoreactive neurons develop neurofibrillary tangles in Alzheimer's disease (PMID:1672808). The glutaminase band in AA/C1 cells is more intense than in HT29 cells, in accordance with measurements of glutaminase activity, and had the same molecular mass of approx. 63 kDa. The bands for both cell lines are clearly different in size from both rat liver glutaminase (58 kDa) and rat kidney glutaminase (65 kDa) (PMID:12408749). It also reveals a molecular weight of 83-84 kDa as a phosphate-dependent glutaminase (PMID:447624;7512428). It has 3 isoforms named as KGA, GAM, GAC. This antibody can recognize KGA and GAC.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ulf D Kahlert	26422827	Int J Cancer	WB
Elisa Oricchio	25242333	Cell Rep	IHC
Teresa W-M Fan	36150727	J Immunol	

## 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

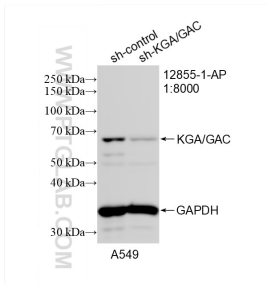
For technical support and original validation data for this product please contact:

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

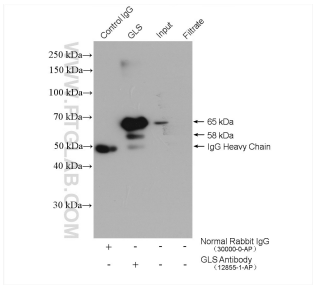
E: proteintech@ptglab.com  
W: ptglab.com

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

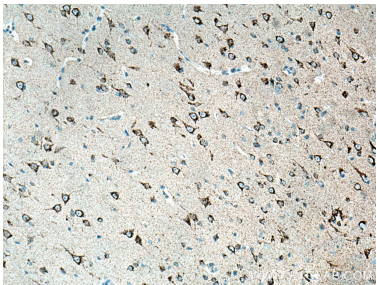
Selected Validation Data



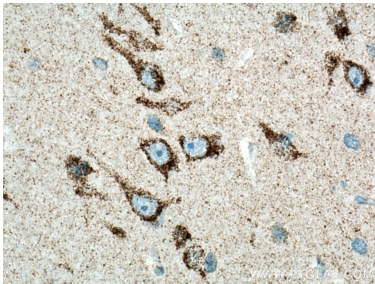
WB result of KGA/GAC antibody (12855-1-AP; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-KGA/GAC transfected A549 cells.



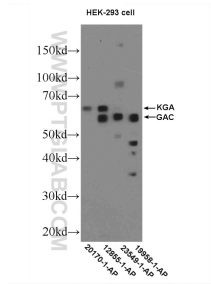
IP result of anti-KGA/GAC (IP:12855-1-AP, 4ug; Detection:12855-1-AP 1:5000) with mouse brain tissue lysate 2400 ug.



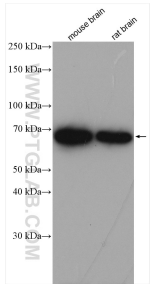
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 12855-1-AP (KGA/GAC antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



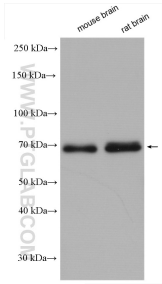
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 12855-1-AP (KGA/GAC antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



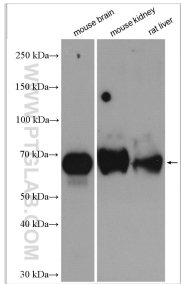
HEK-293 cells were subjected to SDS PAGE followed by western blot with 12855-1-AP (KGA/GAC antibody at dilution of 1:600 incubated at 4 degree celsius over night.



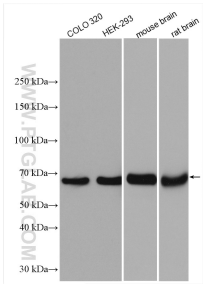
Various lysates were subjected to SDS PAGE followed by western blot with 12855-1-AP (KGA/GAC antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



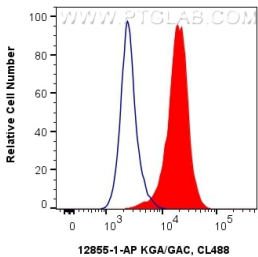
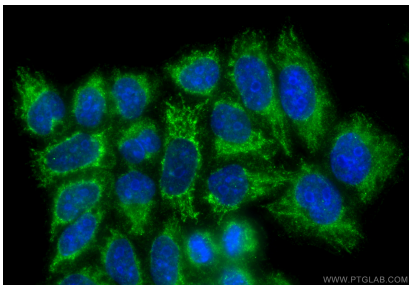
Various lysates were subjected to SDS PAGE followed by western blot with 12855-1-AP (KGA/GAC antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 12855-1-AP (KGA/GAC antibody) at dilution of 1:12000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 12855-1-AP (KGA/GAC antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed L02 cells using KGA/GAC antibody (12855-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).

1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human KGA/GAC (12855-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP, Clone: ) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).