

For Research Use Only

# KGA-Specific Polyclonal antibody

Catalog Number:20170-1-AP

Featured Product

21 Publications



## Basic Information

### Catalog Number:

20170-1-AP

### Size:

150ul , Concentration: 1400 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG14002

### GenBank Accession Number:

BC038507

### GeneID (NCBI):

2744

### UNIPROT ID:

O94925

### Full Name:

glutaminase

### Calculated MW:

669 aa, 73 kDa

### Observed MW:

66 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:1000

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

IHC 1:20-1:200

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC, IF, CoIP

### 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-293 cells, mouse kidney tissue, human heart tissue, human brain tissue, K-562 cells, mouse brain tissue, A549 cells, HeLa cells, rat brain tissue, HFF cells, MRC-5 cells

**IP** : HEK-293 cells, HFF cells

**IHC** : human kidney tissue, human brain tissue, mouse brain tissue, mouse kidney tissue

**IF/ICC** : hela cells, HEK-293 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. 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 produced by alternative splicing named as KGA, GAM, GAC. This antibody is specific to KGA.

## Notable Publications

Author	Pubmed ID	Journal	Application
Daniel Herranz	26390244	Nat Med	WB
Kalpana D Acharya	28955722	eNeuro	WB
Niki Marie Zacharias	29170516	Sci Rep	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

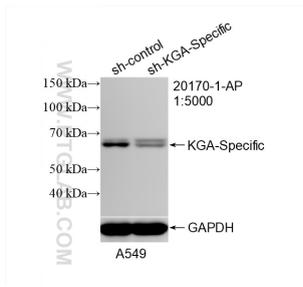
For technical support and original validation data for this product please contact:

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

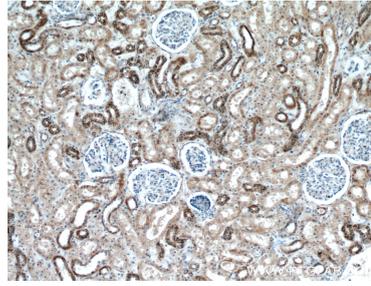
E: proteintech@ptglab.com  
W: ptglab.com

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

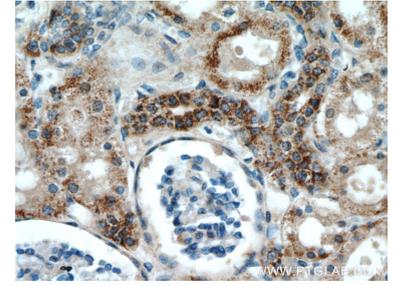
## Selected Validation Data



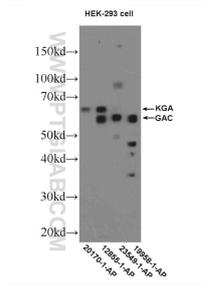
WB result of KGA-Specific antibody (20170-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-KGA-Specific transfected A549 cells.



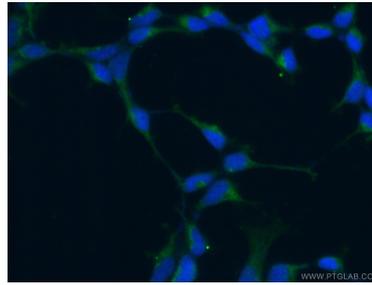
Immunohistochemical analysis of paraffin-embedded human kidney using 20170-1-AP (KGA-Specific antibody) at dilution of 1:100 (under 10x lens).



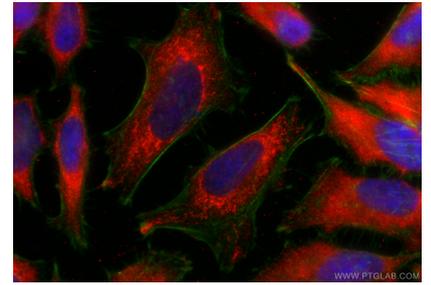
Immunohistochemical analysis of paraffin-embedded human kidney using 20170-1-AP (KGA-Specific antibody) at dilution of 1:100 (under 40x lens).



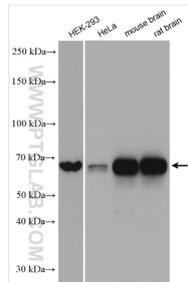
HEK-293 cells were subjected to SDS PAGE followed by western blot with 20170-1-AP (KGA-Specific antibody at dilution of 1:600 incubated at 4 degree celsius over night.



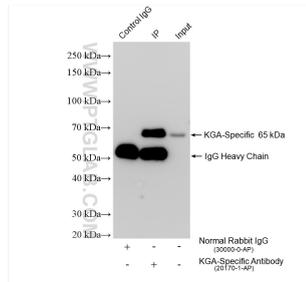
Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using 20170-1-AP (KGA-Specific antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed hela cells using KGA-Specific antibody (20170-1-AP) at dilution of 1:400 and Coralite@594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4), CL488-Phalloidin (green).



Various lysates were subjected to SDS PAGE followed by western blot with 20170-1-AP (KGA-Specific antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



IP result of anti-KGA-Specific (IP:20170-1-AP, 4ug; Detection:20170-1-AP 1:8000) with HEK-293 cells lysate 1440 ug.