

For Research Use Only

# GAP43 Polyclonal antibody

Catalog Number: 16971-1-AP

70 Publications



## Basic Information

### Catalog Number:

16971-1-AP

### Size:

150ul, Concentration: 800 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG9294

### GenBank Accession Number:

BC007936

### GeneID (NCBI):

2596

### UNIPROT ID:

P17677

### Full Name:

growth associated protein 43

### Calculated MW:

238 aa, 25 kDa

### Observed MW:

43 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:2000-1:10000

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

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, canine, zebrafish, hamster, gekko japonicus

**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, rat lung tissue, rat brain tissue

IP : mouse brain tissue,

IHC : mouse brain tissue,

IF-P : mouse brain tissue,

IF/ICC : SH-SY5Y cells,

## Background Information

The neuronal growth-associated protein GAP43 is known as neuromodulin, B-50, P-57, F1, and pp46. Deficiency of GAP43 in mice results in death early in the postnatal period. GAP43 is one of the main substrates for protein kinase C in the brain. GAP43 is an intracellular growth-associated protein that appears to assist neuronal pathfinding and branching during development and regeneration and may contribute to presynaptic membrane changes in the adult, leading to the neurotransmitter release, endocytosis and synaptic vesicle recycling, long-term potentiation, spatial memory formation, and learning. The predicted molecular weight of about 25 kDa is much lower than the apparent observed molecular weight of 43 kDa on SDS-PAGE gels, and this occurs because the highly charged nature of GAP43 causes it to bind less than the average amount of SDS per amino acid, and because the protein has an elongated structure.

## Notable Publications

Author	Pubmed ID	Journal	Application
Xiaoyin Liu	36246376	Front Bioeng Biotechnol	IF
Fei Yao	36163271	Inflamm Regen	IF
Fei Yin	25374587	Neural Regen Res	IHC

## 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

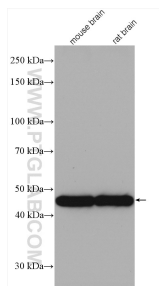
For technical support and original validation data for this product please contact:

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

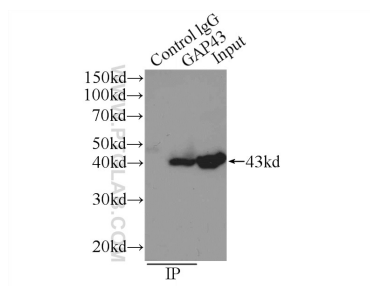
E: proteintech@ptglab.com  
W: ptglab.com

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

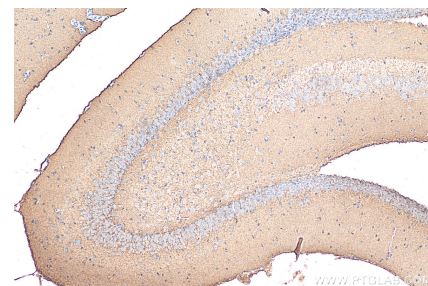
## Selected Validation Data



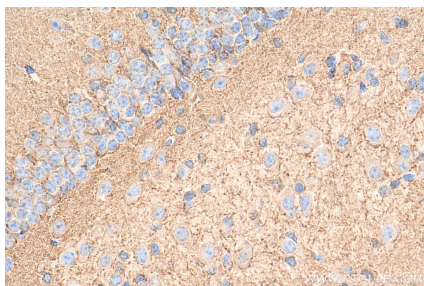
Various lysates were subjected to SDS PAGE followed by western blot with 16971-1-AP (GAP43 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



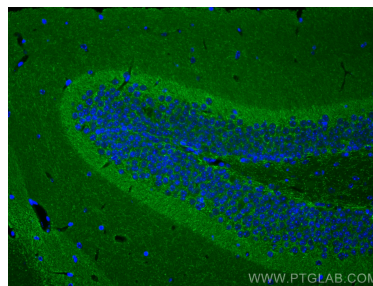
IP result of anti-GAP43 (IP:16971-1-AP, 4ug; Detection:16971-1-AP 1:500) with mouse brain tissue lysate 6000ug.



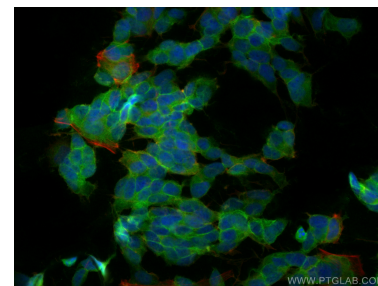
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 16971-1-AP (GAP43 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 16971-1-AP (GAP43 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using GAP43 antibody (16971-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed SH-SY5Y cells using GAP43 antibody (16971-1-AP) at dilution of 1:400 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).