For Research Use Only

GAP43 Polyclonal antibody

Catalog Number:16971-1-AP 47 Publications

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Basic Information

Catalog Number:
16971-1-AP

Size:
150ul , Concentration: 800 μg/ml by Nanodrop and 400 μg/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG9294

GenBank Accession Number:
BC007936

GeneID (NCBI):
2596

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 1:50-1:500

Applications

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

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

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, Gekko japonicus, mouse, zebrafish, hamster, canine

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 : mouse brain tissue, SH-SY5Y cells

Background Information

The neuronal growth-associated protein GAP43 is also 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 predicated 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

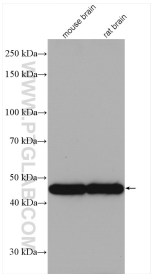
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

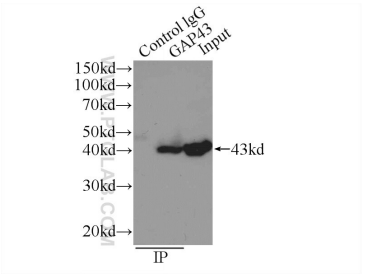
*** 20ul sizes contain 0.1% BSA

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

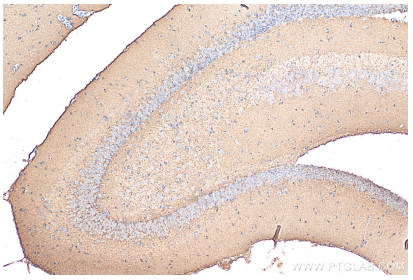
Selected Validation Data



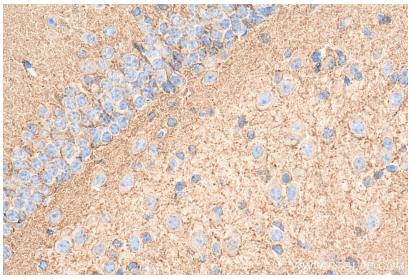
Various lysates were subjected to SDS PAGE followed by western blot with 16971-1-AP (GAP43 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



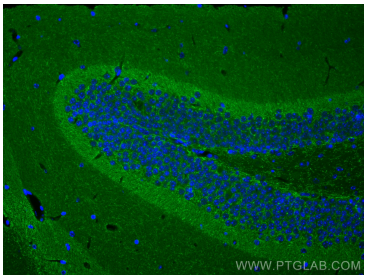
IP Result of anti-GAP43 (IP:16971-1-AP, 4ug; Detection:16971-1-AP 1:500) with mouse brain tissue lysate 6000ug.



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 AffiniPure Goat Anti-Rabbit IgG(H+L).