



Rabbit Anti-phospho-GAP43 (Ser41) antibody

SL1641R

Product Name:	phospho-GAP43 (Ser41)
Chinese Name:	磷酸化神经生长相关蛋白43抗体
Alias:	GAP43 (phospho S41); p-GAP43 (phospho S41); Phospho-GAP43 (pSer41); GAP43 (Phospho-Ser41); p-GAP43 (Ser41); p-GAP43 (S41); Growth Associated Protein-43; Neuromodulin; Axonal membrane protein GAP 43; B-50; F1; GAP 43; Growth Associated Protein 43; Nerve Growth Related Peptide; Neural phosphoprotein B 50; Neuromodulin; GAP-43; pp46; NEUM_HUMAN; Protein F1; QtrA-11580; QtrA-13071.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2g /testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	46kDa
Cellular localization:	cytoplasmicThe cell membraneExtracellular matrix
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human GAP43 around the phosphorylation site of Ser41:QA(p-S)FR
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

The protein encoded by this gene has been termed a 'growth' or 'plasticity' protein because it is expressed at high levels in neuronal growth cones during development and axonal regeneration. This protein is considered a crucial component of an effective regenerative response in the nervous system. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Function:

This protein is associated with nerve growth. It is a major component of the motile 'growth cones' that form the tips of elongating axons. Plays a role in axonal and dendritic filopodia induction.

Subunit:

Identified in a complex containing FGFR4, NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, GAP43 and CTTN. Binds calmodulin with a greater affinity in the absence of Ca(2+) than in its presence.

Subcellular Location:

Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, growth cone membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, synapse. Cell projection, filopodium membrane; Peripheral membrane protein. Note=Cytoplasmic surface of growth cone and synaptic plasma membranes.

Product Detail:

Post-translational modifications:

Phosphorylated at Ser-41 by PHK. Phosphorylation of this protein by a protein kinase C is specifically correlated with certain forms of synaptic plasticity.

Palmitoylation by ARF6 is essential for plasma membrane association and axonal and dendritic filopodia induction. Deacylated by LYPLA2.

Similarity:

Belongs to the neuromodulin family.

Contains 1 IQ domain.

SWISS:

P17677

Gene ID:

2596

Database links:

[Entrez Gene: 2596](#) Human

[Entrez Gene: 14432](#) Mouse

[Entrez Gene: 29423](#) Rat

[GenBank: NP_002036](#) Human

[Omin: 162060](#) Human

[SwissProt: P17677](#) Human

[SwissProt: P06837](#) Mouse

[SwissProt: P07936](#) Rat

[Unigene: 134974](#) Human

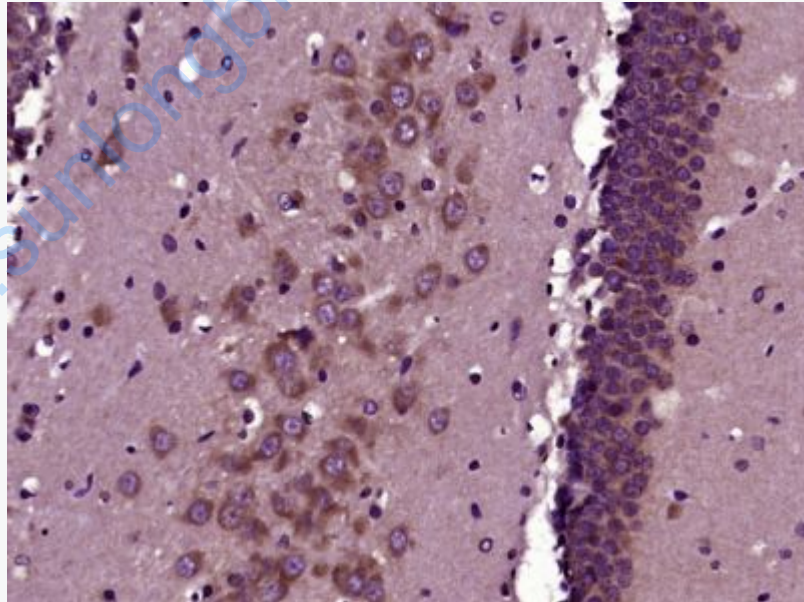
[Unigene: 1222](#) Mouse

[Unigene: 10928](#) Rat

Important Note:

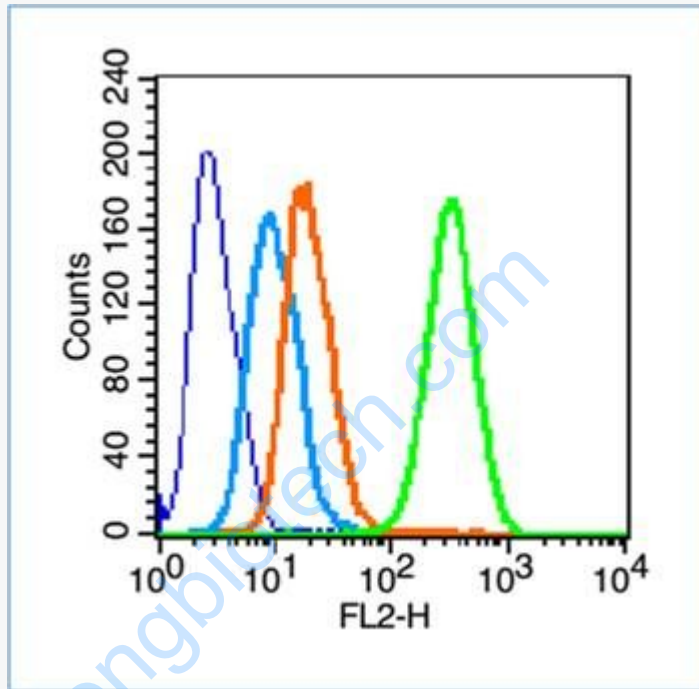
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Picture:



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-GAP43 (Ser41)) Polyclonal Antibody,

Unconjugated (SL1641R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (blue line): HeLa cells (blue).

Primary Antibody (green line): Rabbit Anti-phospho-GAP43 (Ser41) antibody (SL1641R)

Dilution: 0.2µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1µg /test.

Protocol

The cells were fixed with 70% methanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. Cells stained with Primary

Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.