ARG10735
anti-GAP43 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes GAP43
Tested Reactivity	Hu, Ms, Rat, Cow, Hrs, Pig
Predict Reactivity	Chk
Tested Application	ICC/IF, IHC-Fr, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GAP43
Species	Mouse
Immunogen	C-terminal peptide of Mouse and Rat GAP43, which is KEDPEADQEHA, with an N-terminal Cys added to allow chemical coupling to KLH carrier protein.
Conjugation	Un-conjugated
Alternate Names	pp46; Growth-associated protein 43; B-50; Neuromodulin; PP46; Axonal membrane protein GAP-43; Neural phosphoprotein B-50

Application Instructions

Application table

Application	Dilution
ICC/IF	1:1000
IHC-Fr	1:1000
WB	1:10000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

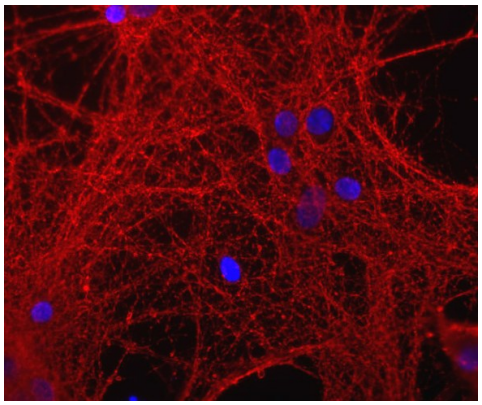
Form	Liquid
Purification	Affinity purification.
Buffer	PBS and 50% Glycerol.
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

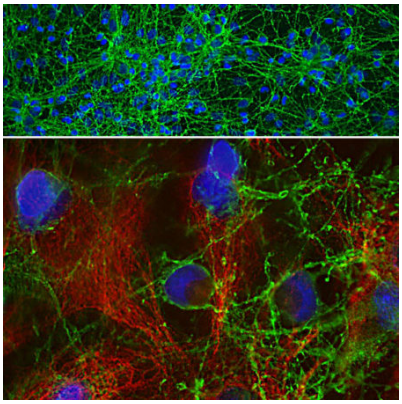
Gene Symbol	Gap43
Gene Full Name	growth associated protein 43
Background	The protein encoded by this gene has been termed a 'growth' or 'plasticity' protein because it is expressed at high levels in neuronal growth cones during development and axonal regeneration. This protein is considered a crucial 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. [UniProt]
Calculated Mw	25 kDa
PTM	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.

Images



ARG10735 anti-GAP43 antibody ICC/IF image

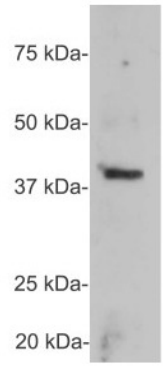
Immunocytochemistry: Rat mixed neuron-glial cultures stained with ARG10735 anti-GAP43 antibody (red). Blue is DNA staining.



ARG10735 anti-GAP43 antibody ICC/IF image

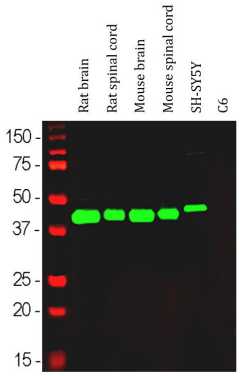
Immunofluorescence: Cortical neuron-glial cells from E20 Rat stained with ARG10735 anti-GAP43 antibody (green) at 1:2000 dilution and costained with Mouse mAb to vimentin (red) at 1:2000 dilution. DAPI (blue) for nuclear staining.

The GAP43 antibody labels protein expressed in the axonal membrane of neuronal cells, while vimentin antibody stains intermediate filaments in fibroblasts and other non-neuronal cells.



ARG10735 anti-GAP43 antibody WB image

Western blot: Homogenate of cow cerebellum stained with ARG10735 anti-GAP43 antibody.



ARG10735 anti-GAP43 antibody WB image

Western blot: Rat brain, Rat spinal cord, Mouse brain, Mouse spinal cord, SH-SY5Y and C6 cell lysates stained with ARG10735 anti-GAP43 antibody (green) at 1:20000 dilution.

The GAP43 protein is detected only in the lysates of neuronal origin. C6 cells are a Rat glioma cell line and do not express GAP43 protein.