ARG10715
anti-GAP43 antibody [3H14]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [3H14] recognizes GAP43
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-Fr, WB
Host	Mouse
Clonality	Monoclonal
Clone	3H14
Isotype	IgM
Target Name	GAP43
Species	Human
Immunogen	Recombinant full-length Human GAP43.
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 - 1:5000
IHC-Fr	1:1000 - 1:5000
WB	1:1000 - 1:5000

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

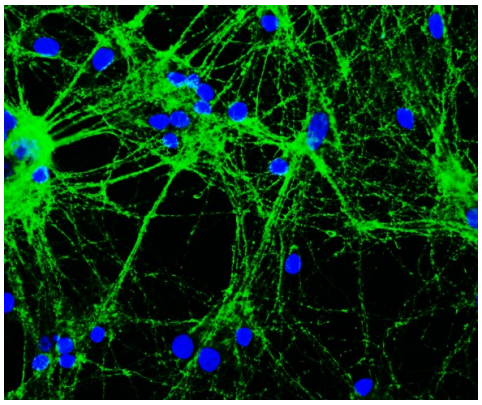
Properties

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

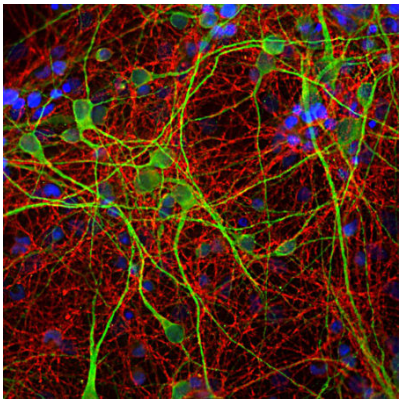
Gene Symbol	GAP43
Gene Full Name	growth associated protein 43
Background	The protein encoded by this gene has been termed a 'growth' or 'plasticity' protein because it is expressed at high levels in neuronal growth cones during development and axonal regeneration. This protein is considered a crucial 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



ARG10715 anti-GAP43 antibody [3H14] ICC/IF image

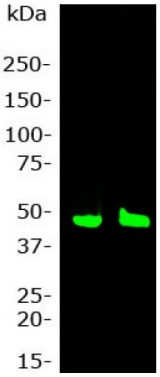
Immunocytochemistry: Mixed Rat neuronal cultures stained with ARG10715 anti-GAP43 antibody [3H14] (green). The GAP43 antibody stains the plasma membrane of neurons and is particularly concentrated in dendrites.



ARG10715 anti-GAP43 antibody [3H14] ICC/IF image

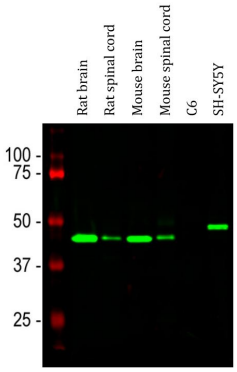
Immunofluorescence: Cortical neuron-glial cells from E20 Rat stained with ARG10715 anti-GAP43 antibody [3H14] (red) at 1:1000 dilution and costained with ARG52328 anti-MAP2 antibody (green) at 1:10000 dilution. DAPI (blue) for nuclear staining.

The GAP43 antibody labels protein expressed in the axonal membrane of the neuronal cells, while the MAP2 antibody stains dendrites and perikarya of neurons.



ARG10715 anti-GAP43 antibody [3H14] WB image

Western blot: 1) SH-SY5Y cell lysate, and 2) whole Rat brain lysate was stained with ARG10715 anti-GAP43 antibody [3H14] at 1: 2000 dilution.



ARG10715 anti-GAP43 antibody [3H14] WB image

Western blot: Rat brain, Rat spinal cord, Mouse brain, Mouse spinal cord, C6 and SH-SY5Y cell lysates stained with ARG10715 anti-GAP43 antibody [3H14] (green) at 1:5000 dilution.

The protein is expressed in rodent and Human neurons and neuronal derived cells but not in C6 cells which are of glial origin.
