

ARG52310 anti-GAP43 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Chicken Polyclonal antibody recognizes GAP43
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	GAP43
Species	Rat
Immunogen	Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH
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	1:500 - 1:2000
	WB	1:1000 - 1:5000

Application Note Specific for the ~43k GAP-43 protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

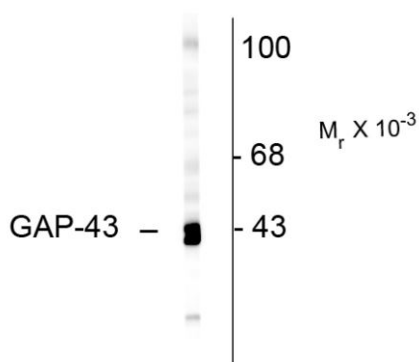
Form	Liquid
Purification	Total IgY fraction
Buffer	Total IgY fraction in PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost 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 GAP-43 is thought to have an important role in development and plasticity because it is expressed at high levels in neuronal growth cones during development and during axonal regeneration (Benowitz and Routtenberg, 1997). There is also evidence from knockout animals that GAP-43 serves to amplify pathfinding signals from the growth cone (Strittmatter et al., 1995). GAP-43 is thought to mediate at least some of these effects via interaction with actin. Importantly, phosphorylation at Ser41 by protein kinase C modulates the interaction of GAP-43 with actin (He et al., 1997) and may also affect neurotransmitter release during forms of plasticity like LTP (Hulo et al., 2002).

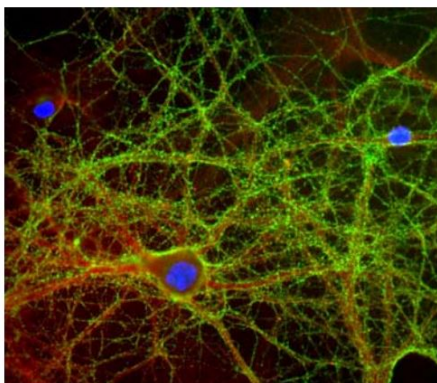
Research Area Neuroscience antibody
 Calculated Mw 25 kDa
 PTM Phosphorylated at Ser-41 by PKC. Phosphorylation of this protein by a protein kinase C is specifically correlated with certain forms of synaptic plasticity. Palmitoylation by ARF6 is essential for plasma membrane association and axonal and dendritic filopodia induction. Deacylated by LYPLA2.

Images



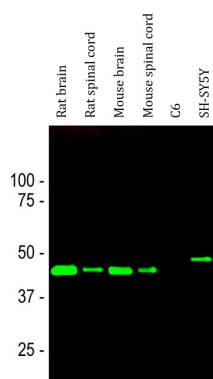
ARG52310 anti-GAP43 antibody WB image

Western blot: rat cortex lysate stained with ARG52310 anti-GAP43 antibody showing specific immunolabeling of the ~ 43k GAP43 protein.



ARG52310 anti-GAP43 antibody ICC/IF image

Immunofluorescence: mixed neuron/glia cultures stained with ARG52310 anti-GAP43 antibody showing GAP43 (green) labeling of numerous axonal and dendritic profiles and ARG52219 anti-Alpha II Spectrin antibody (red).



ARG52310 anti-GAP43 antibody WB image

Western blot: Rat brain, Rat spinal cord, Mouse brain, Mouse spinal cord, C6 and SH-SY5Y cell lysates stained with ARG52310 anti-GAP43 antibody (green) at 1:5000 dilution.

Single band at the 43 kDa mark corresponds to GAP43. The GAP43 protein only detected in the lysates of neuronal origin. C6 cells are a Rat glioma cell line and do not express GAP43.