ARG52311
anti-GAP43 phospho (Ser41) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes GAP43 phospho (Ser41)
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Bov, Chk, Dog, NHuPrm, Xenopus laevis, Zfsh
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GAP43
Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser41 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
WB	1:1,000

Application Note

Specific for the ~50k Gap-43 protein phosphorylated at Ser41. In some tissues the antibody also recognizes a higher molecular weight protein that is also recognized by the pan Gap-43 antibody, that may be a Gap-43 aggregate or oligomer. Immunolableing is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. Immunolabeling is completely eliminated by treatment with λ-Ptase.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

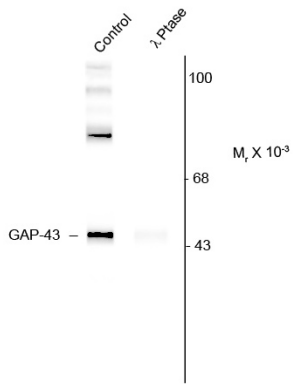
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
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

Database links	GeneID: 29423 Rat Swiss-port # P07936 Rat
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 Ser 41 by protein kinase C (Catalog No. 1609-PKC) 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 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



ARG52311 anti-GAP43 phospho (Ser41) antibody WB image

Western blot: Rat cortex lysate showing specific immunolabeling of the ~50k Gap-43 protein phosphorylated at Ser41 (Control) stained with ARG52311 anti-GAP43 phospho (Ser41) antibody. The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: λ-Ptase).