

Chicken GAP43 Polyclonal Antibody | anti-GAP43 antibody

Anti-GAP-43

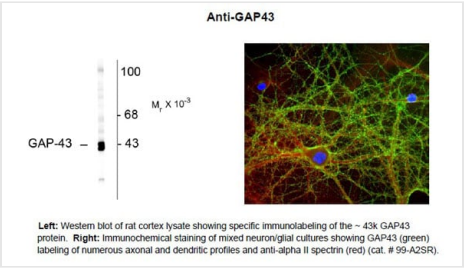
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72818	Chicken	Bovine , Human, Mouse, Pig, Rat	Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GAP43; Polyclonal Antibody; Anti-GAP-43; anti-GAP43 antibody

PRODUCT SPECIFICATIONS

Host	Chicken
Reactivity	Bovine , Human, Mouse, Pig, Rat
Clonality	Polyclonal
Specificity	Specific for the ~43k GAP-43 protein.
Purity/Purification	Total IgY fraction
Form/Format	Total IgY fraction in PBS + 10 mM NaN ₃ .
Sequence Length	226
Applicable Applications for anti-GAP43 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Packaging	Adequate amount of material to conduct 10-mino Western Blots.
Antigen	Synthetic peptide corresponding to amino acid residues from the C-terminal region of the rat GAP43 sequence.
Antigen Specificity	Specific for endogenous levels of the !43 kDa GAP-43 protein
Immunogen Information	Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH
Immunogen Species	Rat
Species Reactivity Note	The antibody has been directly tested for reactivity in Western blots with human, mouse and rat tissue.
Biological Significance	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).
Preparation and Storage	For long term storage -20 degree C is recommended. Stable at -20 degree C for at least 1 year



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-GAP43 antibody	Chicken polyclonal antibody
References	• Benowitz LI, Routtenberg A (1997) Gap-43: An intrinsic determinant of neuronal development and plasticity. Trends Neurosci 20:84-91. • He, Q, Dent, EW, Meiri, KF (1997) Modulation of actin filament behavior by Gap-43 (neuromodulin) is dependent on the phosphorylation status of serine 41, the protein kinase C site. J Neurosci 17:3515-3524. • Hulo S, Alberi, S, Laux T, Muller D, Caroni P (2002) A point mutant of Gap-43 induces enhanced short-term and long-term hippocampal plasticity. Eur J Neurosci 15:1976-1982. • Strittmatter SM, Fankhauser C, Huang PL, Mashimo H, Fishman MC (1995) Neuronal path finding is abnormal in mice lacking the neuronal growth cone protein Gap-43," Cell 80:445-452. • Rayudu Gopalakrishna, Usha Gundimeda, Jason Eric Schiffman, and Thomas H. McNeill (2008) A Direct Redox Regulation of Protein Kinase C Isoenzymes Mediates Oxidant-induced Neuritogenesis in PC12 Cells J. Biol. Chem., May 2008; 283: 14430 - 14444.

NCBI AND UNIPROT INFORMATION

NCBI GI #	8393415
NCBI GeneID	29423
NCBI Accession #	NP_058891.1
NCBI GenBank Nucleotide #	NM_017195.3
UniProt Accession #	P07936; A0JPM4
Molecular Weight	~43
NCBI Official Full Name	neuromodulin
NCBI Official Synonym Full Names	growth associated protein 43
NCBI Official Symbol	Gap43
NCBI Official Synonym Symbols	Basp2
NCBI Protein Information	neuromodulin; protein F1; growth-associated protein 43; axonal membrane protein GAP-43; growth accentuating protein 43; brain abundant, membrane attached signal protein 2
UniProt Protein Name	Neuromodulin
UniProt Gene Name	Gap43
UniProt Entry Name	NEUM_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.