ARG52250
anti-Connexin 43 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Connexin 43
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Chk, Dog, NHuPrm, Sheep, Xenopus laevis, Zfsh
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Connexin 43
Species	Rat
Immunogen	Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	Gap junction 43 kDa heart protein; CX43; PPKCA; CMDR; Gap junction alpha-1 protein; HSS; AVSD3; Connexin-43; HLHS1; EKVP; GJAL; ODDD; Cx43

Application Instructions

Application table

Application	Dilution
WB	1:1,000

Application Note: Specific for the ~43k connexin43 protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

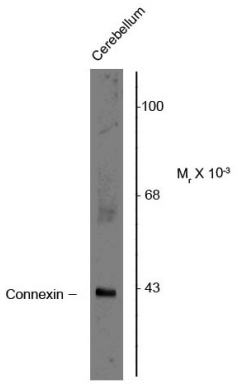
Properties

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: 24392 Rat
	Swiss-port # P08050 Rat
Gene Symbol	GJA1
Gene Full Name	gap junction protein, alpha 1
Background	Gap junctional intercellular communication is thought to play a key role in development and may also be involved in epilepsy (Aronica et al., 2001). Connexin43 forms gap-junctional channels and regulates the permeability of these gap junctions to small organic molecules. Permeability of connexin43 is known to be regulated by phosphorylation at er368 by protein kinase C (Yogo et al., 2002; Bao et al., 2004a). Phosphorylation of Ser368 by PKC induces a conformational change of connexin43 that results in a decrease in gap junction permeability (Bao et al., 2004b).
Research Area	Cell Biology and Cellular Response antibody; Signaling Transduction antibody; Cardiomyocyte Cell Surface Marker antibody
Calculated Mw	43 kDa
PTM	Phosphorylated at Ser-368 by PRKCG; phosphorylation induces disassembly of gap junction plaques and inhibition of gap junction activity (By similarity). Phosphorylation at Ser-325, Ser-328 and Ser-330 by CK1 modulates gap junction assembly. Phosphorylation at Ser-368 by PRKCD triggers its internalization into small vesicles leading to proteasome-mediated degradation (By similarity). Sumoylated with SUMO1, SUMO2 and SUMO3, which may regulate the level of functional Cx43 gap junctions at the plasma membrane. May be desumoylated by SENP1 or SENP2. S-nitrosylation at Cys-271 is enriched at the muscle endothelial gap junction in arteries, it augments channel permeability and may regulate of smooth muscle cell to endothelial cell communication.

Images



ARG52250 anti-Connexin 43 antibody WB image

Western blot: Rat cerebellar lysate showing specific immunolabeling of the ~43k Connexin 43 protein stained with ARG52250 anti-Connexin 43 antibody.