



PhosphoSolutions®
Antibodies that work™

Colorado Biosciences Park
12635 East Montview Boulevard, #213
Aurora, CO 80045-7337
Tel: (888) 442-7100

Anti-Connexin43

Catalog Number: 327-CON

Size: 100 µl

Product Description: Affinity purified rabbit polyclonal antibody

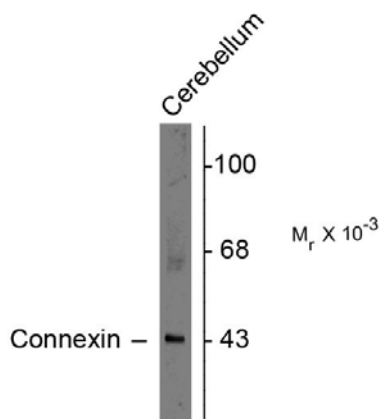
Applications: **WB:** 1:1000

Antigen: Peptide corresponding to amino acid residues from the C-terminal region of rat connexin43.

Species reactivity: The antibody has been directly tested for reactivity in Western blots in rat tissues. It is anticipated that the antibody will also work with chicken, dog, finch, human, mouse, non-human primate, sheep, *Xenopus* and zebra fish tissues based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Biological Significance: 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 Ser³⁶⁸ 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).

Anti-Connexin43



Western blot of rat cerebellar lysate showing specific immunolabeling of the ~43k connexin43 protein.

Page 1 of 2

WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.

Storage and Stability: Store at -20°C; stable for at least one year.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.

Purification Method: Prepared from rabbit serum by affinity purification on a column made with the C-terminal peptide used as antigen.

Antibody Specificity: Specific for the ~43k connexin43 protein.

Quality Control Tests: Western blots performed on each lot.

References:

- Aronica E, Gorter JA, Jansen GH, Leenstra S, Yankaya B, Troost D (2001) Expression of connexin 43 and connexin 32 gap-junction proteins in epilepsy-associated brain tumors and in the perilesional epileptic cortex. *Acta Neuropathol (Berl)* 101:449-459.
- Bao X, Altenberg GA, Reuss L (2004a) Mechanism of regulation of the gap junction protein connexin 43 by protein kinase C-mediated phosphorylation. *Am J Physiol Cell Physiol* 286:C647-C654.
- Bao X, Reuss L, Altenberg GA (2004b) Regulation of purified and reconstituted connexin 43 hemichannels by protein kinase C-mediated phosphorylation of Serine 368. *J Biol Chem* 279:20058-20066.
- Yogo K, Ogawa T, Akiyama M, Ishida N, Takeya T (2002) Identification and functional analysis of novel phosphorylation sites in Cx43 in rat primary granulos cells. *FEBS Lett* 531:132-136.

WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.

Storage and Stability: Store at -20°C; stable for at least one year.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.