



Qty: 100 µL

Rabbit anti-Connexin 43 [pS368]

Catalog No. 483000

Lot No.

Rabbit Anti-Connexin 43 [phosphoserine 368]

FORM

This affinity-purified rabbit polyclonal antibody is supplied as a 100 µL aliquot in 10 mM HEPES (pH 7.5), 150 mM NaCl containing BSA and 50% glycerol.

PAD: ZMD.640

IMMUNOGEN

Phosphopeptide corresponding to amino acid residues surrounding the phosphoserine 368 of rat connexin 43.

SPECIFICITY

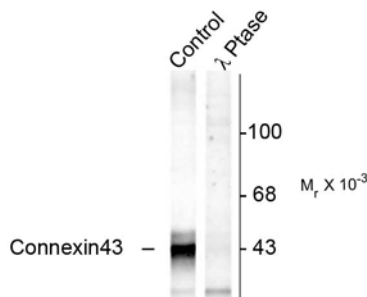
Specific for the ~43 kDa connexin 43 protein phosphorylated at serine 368. Immunolabeling is blocked by λ-phosphatase treatment.

REACTIVITY

The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with bovine, canine, chicken, guinea pig, human, mouse and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Sample	Western Blotting
Rat	+++
Bovine	ND
Canine	ND
Chicken	ND
Guinea pig	ND
Human	ND
Mouse	ND
Zebra fish	ND

(Excellent +++, Good ++, Poor +, No reactivity 0, Not applicable N/A, Not determined ND)



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~43 kDa connexin 43 phosphorylated at serine 368 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: λ-Ptase). The blot is identical to the control except that it was incubated in λ-Ptase (1200 units for 30 min) before being exposed to the connexin 43 [pS368] antibody. The immunolabeling of connexin 43 is completely eliminated by treatment with λ-Ptase.

(cont')

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(Rev 10/08) DCC-08-1089

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USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1:1000

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

BACKGROUND

Gap junctional intercellular communication is thought to play a key role in development and may also be involved in epilepsy.¹ Connexin 43 forms gap-junctional channels and regulates the permeability of these gap junctions to small organic molecules. Permeability of connexin 43 is known to be regulated by phosphorylation at serine 368 by protein kinase C.^{2,3} Phosphorylation of serine 368 by PKC induces a conformational change of connexin 43 that results in a decrease in gap junction permeability.⁴

REFERENCES

1. Aronica E, et al., Acta Neuropathol (Berl) 101:449-459, 2001.
2. Yogo K, et al., FEBS Lett 531:132-136, 2002.
3. Bao X, et al., Am J Physiol Cell Physiol 286:C647-C654, 2004.
4. Bao X, et al., J Biol Chem 279:20058-20066, 2004.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

Conjugate	Goat anti-rabbit IgG (H+L)	Goat anti-mouse IgG (H+L)	Ex/Em*	Fluorescence similar to--
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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