

## Datasheet: AHP977

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| <b>Description:</b>  | RABBIT ANTI CONNEXIN 43 (pSer368) |
| <b>Specificity:</b>  | CONNEXIN 43 (pSer368)             |
| <b>Other names:</b>  | GAP JUNCTION ALPHA-1 PROTEIN      |
| <b>Format:</b>       | Purified                          |
| <b>Product Type:</b> | Polyclonal Antibody               |
| <b>Isotype:</b>      | Polyclonal IgG                    |
| <b>Quantity:</b>     | 0.1 ml                            |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                            | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry             |     |    | ▪              |                    |
| Immunohistology - Frozen   |     |    | ▪              |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting (1)       | ▪   |    |                | 1/1000             |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) For the detection of phosphoproteins, serine phosphatase inhibitors such as 10mM Sodium Fluoride should be added to the sample buffer. Milk or other casein-based blocking solutions are not recommended as casein is a phosphoprotein and its use can result in high background.**

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| <b>Target Species</b>           | Rat  |
| <b>Species Cross Reactivity</b> | Based on sequence similarity, is expected to react with: Zebrafish, Chicken, Guinea Pig, Mouse, Dog, Human, Bovine<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. |
| <b>Product Form</b>             | Purified IgG - liquid  |
| <b>Antiserum Preparation</b>    | Antisera to rat connexin43 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.  |
| <b>Buffer Solution</b>          | 10mM HEPES pH7.5   |
| <b>Preservative</b>             | 0.05% Sodium Azide   |
| <b>Stabilisers</b>              | 0.01% Bovine Serum Albumin   |

50% Glycerol

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| <b>Immunogen</b> | Synthetic phosphopeptide corresponding to an amino acid sequence within connexin43 which includes phosphorylated Ser368 |
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| <b>External Database Links</b> | <b>UniProt:</b><br><a href="#">P08050</a> <a href="#">Related reagents</a>         |
|                                | <b>Entrez Gene:</b><br><a href="#">24392</a> Gja1 <a href="#">Related reagents</a> |

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| <b>Synonyms</b> | Cxn-43 |
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| <b>Specificity</b> | <p><b>Rabbit anti Rat connexin 43 (pSer368) antibody</b> recognizes connexin 43 (Cx43), also known as gap junction alpha-1 protein and gap junction 43 kDa heart protein, when phosphorylated at serine 368.</p> <p>Connexin 43 allows for the exchange of solutions between neighbouring cells through the formation of gap-junctional channels and is expressed in the brain, kidneys and myocardium, as well as vascular endothelial cells. A decrease in the permeability of gap-junctional channels occurs due to a conformational change in the structure of connexin 43, and that this is mediated by the phosphorylation of connexin 43 at residue serine 368, by Protein Kinase C (<a href="#">Bao et al. 2004</a>).</p> <p>A possible link between connexin 43 and epilepsy has been investigated following the detection of high levels of connexin 43 in both low-grade tumours and peritumoural reactive astrocytes (<a href="#">Aronica et al. 2001</a>).</p> |
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| <b>Western Blotting</b> | AHP977 detects a band of approximately 43kDa in rat hippocampus cell lysates. |
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| <b>Further Reading</b> | <ol style="list-style-type: none"><li>1. Bao, X. <i>et al.</i> (2004) Mechanism of regulation of the gap junction protein connexin 43 by protein kinase C-mediated phosphorylation. <a href="#">Am J Physiol Cell Physiol. 286 (3): C647-54.</a></li><li>2. Bao, X. <i>et al.</i> (2004) Regulation of purified and reconstituted connexin 43 hemichannels by protein kinase C-mediated phosphorylation of Serine 368. <a href="#">J Biol Chem. 279 (19): 20058-66.</a></li><li>3. Aronica, E. <i>et al.</i> (2001) Expression of connexin 43 and connexin 32 gap-junction proteins in epilepsy-associated brain tumors and in the perilesional epileptic cortex. <a href="#">Acta Neuropathol. 101 (5): 449-59.</a></li></ol> |
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| <b>Storage</b> | Store at +4°C or at -20°C if preferred.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
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| <b>Shelf Life</b> | 12 months from date of despatch. |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10088 available at:<br>10088: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf</a> |
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| <b>Regulatory</b> | For research purposes only |
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## Related Products

## Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)  
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),  
[DyLight®680](#), [DyLight®800](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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