



Qty: 100µg/400 µL

## Rabbit anti-Connexin 36

For Research Use Only

Catalog No. 36-4600

Lot No.

## Rabbit anti-Connexin 36

### FORM

This polyclonal antibody is supplied as a 400 µl aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.257

### IMMUNOGEN

Synthetic peptide derived from the C terminal region of the human Connexin 36 protein. This peptide sequence is downstream from the sequence used to generate another Invitrogen polyclonal Connexin 36 antibody, catalog number 51-6300.

### SPECIFICITY

This antibody reacts with mouse Connexin 36. On Western blots, it identifies a single band at ~36 kDa. The specificity of this antibody was demonstrated using Connexin 36 knockout mice.

### REACTIVITY

Reactivity has been confirmed with mouse Connexin 36 transfected HeLa cell lysates, mouse brain, retina and pancreas homogenates. Based on amino acid sequence homology, this antibody is also expected to react with human, rat and zebra fish.

Sample	Western Blotting	ELISA	IHC (Frozen tissue)
Mouse	+++	ND	++
Immunogen	N/A	+++	ND

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

### 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.

**ELISA:** 0.1-1µg/ml  
**Western Blotting:** 1-3 µg/ml  
**IHC (frozen tissue):** 2-5 µg/ml

### STORAGE

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

(cont'd)

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PI364600

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**BACKGROUND**

Intercellular communication through gap junctions plays an important role in a variety of cellular processes including homeostasis, morphogenesis, cell differentiation and growth control<sup>1,3,4</sup>. Interestingly, reduction or alteration in the levels or types of connexin expressed in a given cell type has been found to correlate with tumor progression and metastasis<sup>9</sup>.

The murine Cx36 gene encodes a protein of 321 amino acids most homologous to connexin 35<sup>2,7</sup>. Based on the presence of an intron within its coding region the Cx36 gene is suggested to form a new delta subclass of murine connexin genes<sup>7</sup>. Specific cell types in the brain express specific types of connexins; expression and expression patterns coincide with tissue compartmentalization and function. These compartments change during development<sup>5</sup>. Cx36 is the first gap junction protein expressed predominantly in neuronal cells of the mammalian central nervous system. It is highly expressed in adult retina and is present in neurons of the inferior olive, the olfactory bulb, the CA3/CA4 hippocampal subfields and several brain-stem nuclei<sup>2</sup>. Cx36 mRNA expression in the brain gradually increases during fetal development until day seven post-partum when its expression begins to decline<sup>6</sup>. Biophysical measurements of gap junction channels formed by transfected and endogenous Cx36 indicate that they possess unique properties well suited for mediating flexible electrical and biochemical interactions between neurons<sup>8</sup>.

**REFERENCES**

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2. Condorelli DF, et al. *Eur J Neurosci* 10(3), 1202-1208, 1998.
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5. Rosental R, et al. *Brain Res Brain Res Rev* 32(1), 11-15, 2000.
6. Sohl G, et al. *FEBS Lett* 428(1-2), 27-31, 1998.
7. Sohl G, et al. *Eur J Cell Biol* 69(3), 267-275, 1996.
8. Srinivas M, et al. *J Neurosci* 19(22), 9848-9855, 1999.
9. Wilgenbus K.K, et al. *Int J Cancer* 51(4), 522-529, 1992.

**RELATED PRODUCTS**

<i>Product</i>	<i>Clone/PAD*</i>	<i>Cat. No.</i>
Rabbit anti-Connexin36	CY44	51-6300
Rabbit anti-Connexin36	CYL5	51-6200
Rabbit anti-Connexin26	UM214	51-2800
Rabbit anti-Connexin29	ZMD.81	34-4200
Rabbit anti-Connexin30	Z-PP9	71-2200
Rabbit anti-Connexin32	ZMD.193	34-5700
Mouse anti-Connexin32	5F9A9	35-8900
Rabbit anti-Connexin43	Z-JB1	71-0700
Mouse anti-Connexin43	3D8A5	35-5000
Mouse anti-Connexin50	C6	33-4300
Mouse anti-Connexin36	1E5H5	37-4600
Connexin Antibody Sampler Pack	Various	90-0500
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

\*PAD: Polyclonal Antibody Designation

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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