



Qty: 100 µg/400 µL

Rabbit anti-Connexin 37 (Mid)

Catalog No. 40-4300

Lot No.

Rabbit anti-Connexin 37 (Mid)

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.463

IMMUNOGEN

Synthetic peptide derived from the internal region of the mouse connexin 37 protein

SPECIFICITY

This antibody is specific for the connexin 37 protein. On Western blots, it identifies the target band at ~37 kDa. Bands and a smear of unknown origin are visible at ~65 kDa.

REACTIVITY

Reactivity has been confirmed using mouse uterus and lung tissue homogenates in Western blots. Frozen mouse uterus and lung tissue sections were used for immunohistochemistry and immunofluorescence. Based on amino acid sequence homology, reactivity with rat is also expected.

Sample	Western Blotting	Immunohistochemistry (frozen)	Immunofluorescence
Mouse	+++	+++	+++
Rat	ND	ND	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.

Immunohistochemistry (frozen): 1-3 µg/mL

Immunofluorescence: 1-3 µg/mL

Western blotting: 1-3 µg/mL

NOTE: Mouse uterus and lung sections were fixed in 1% paraformaldehyde and cryopreserved prior to use in IHC and IF applications.

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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PI404300

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BACKGROUND

Connexin 37 (Cx37) is a gap junction-forming protein with limited expression in only a few cell types, predominantly in endothelial cells and in the lung.¹ Cx37 is found in the endothelium of the aorta, caudal and basilar arteries and also in smooth muscle cells of the trachea and pulmonary artery.² Vascular abnormalities were observed in mice lacking Cx37 and Cx40, particularly in the testis and small intestine.³ Cx37 is found in ovary gap junctions between oocyte and granulosa cells, and is essential for normal follicular growth.³

Cx37 mRNA is upregulated following sciatic nerve injury, and this correlates with subsequent thermal hyperalgesia, suggesting that gap junctions composed of Cx37 may contribute to hyperexcitability following peripheral nerve injury.⁴

REFERENCES

1. Seul KH, Beyer EC. *Biochim Biophys Acta* 1492(2-3):499-504, 1999.
2. Nakamura K, et al. *Arch Histol Cytol* 62(1):27-37, 1999.
3. Simon AM, et al. *Nature* 385(6616):525-529, 1997.
4. Lin SH, et al. *Brain Res Mol Brain Res* 99(2):134-140, 2002.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
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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