



Qty: 100 µg/400 µl

Rabbit anti-Connexin 32

Catalog No. 34-5700

Lot No. See product label

Rabbit anti-Connexin 32

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. The antibody is epitope-affinity-purified from rabbit antiserum.

PAD: ZMD.193

IMMUNOGEN

Synthetic peptide derived from the C-terminal sequence of the human connexin 32 protein, downstream from the sequence identified by another Invitrogen Connexin 32 antibody, Cat. No. 71-0600.

SPECIFICITY

This antibody reacts with mouse connexin 32 in liver and brain. On Western blotting with mouse liver cell lysates, CX 32 exhibits a band at 32 kDa.

This antibody is directed against a peptide corresponding to sequence in mouse CX 32 downstream from Invitrogen CX 32 (Cat. No. 71-0600). Thus, these two antibodies against different sequences in CX 32 may be used to confirm results of CX 32 expression, as detected by IHC and Western blotting.

REACTIVITY

Reactivity is confirmed with mouse liver lysates. Based on amino acid sequence homology, this antibody is expected to cross-react with human and rat CX 32. Reactivity with other species has not been determined.

Sample	Western Blotting	Immunohistochemistry (frozen)**
Human	ND	ND
Mouse	+++	+++
Immunogen	N/A	N/A

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

** IHC parameters: fresh frozen tissue sections fixed in 4% paraformaldehyde, as published in Li J, et al. *J Comp Neurol* 379:571-591, 1997.

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.

IHC: 0.5 – 2.0 µg/mL
Western Blotting: 1-5 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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PI345700

(Rev 10/08) DCC-08-1089

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BACKGROUND

Intercellular communication mediated by gap junctions plays an important role in a variety of cellular processes, including homeostasis, morphogenesis, cell differentiation, and regulation of growth.¹⁻³ Gap junctions are transmembrane channels that directly link neighboring cells by regulating the exchange of low molecular weight (<1200 Da) metabolites, ions, and second messengers. Gap junctions are formed by the interaction of hemichannels (connexons) on adjacent cells. Each connexon is composed of a hexameric assembly of connexin proteins.

Connexins are highly homologous proteins encoded by a multigene family with similar structural features, including a cytoplasmic N-terminal region, four transmembrane domains, two extracellular loops, and a C-terminal cytoplasmic tail. Comparison of the amino acid sequence of the various connexin family members indicates that the two areas of greatest divergence are the intracellular loop connecting the second and third transmembrane domains and the C-terminal tail.¹⁻² These distinct domains are thought to mediate connexin type-specific properties, including phosphorylation, responses to gating stimuli, and assembly and membrane turnover. Modulation of gap junction communication may be achieved through multiple mechanisms, and may occur rapidly or over a period of hours. Mechanisms include alterations in transcription, translation, stability, post-translational processing, gating, and insertion or removal from the plasma membrane. Reduction of alterations in the level or type of connexins expressed within a cell has been found to correlate with tumor progression and metastasis.⁴

Connexin 32 (CX 32) is a 32 kDa protein that belongs to the beta-type (Group I) subfamily of connexins. CX 32 has been detected in a variety of cell types and tissues, including hepatocytes, pancreatic acinar cells, oligodendrocytes,⁵⁻⁶ stomach, brain, liver, kidney, and peripheral nerves.

REFERENCES

1. Kumar M, Gilula MB. *Cell* 84(3):381-388, 1996.
2. Saez JC, et al. In: *Advances in Second Messenger and Phosphoprotein Research*. Eds: Shenolikar S, Narin A. New York: Raven Press;163-197, 1993.
3. Kuraoka A, et al. *J Histochem Cytochem* 41:971-980, 1993.
4. Wilgenbus KK, et al. *Int J Cancer* 51(4):522-529, 1992.
5. Li J, et al. *J Comp Neurol* 379(4):571-591, 1997.
6. Rash JE, et al. *J Neurosci* 21(6):1983-2000, 2001.

RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Rabbit anti-Connexin 32	Z-AA6	71-0600
Mouse anti-Connexin 32	CX-2C2	13-8200
Mouse anti-Connexin 26	CX-12H10	13-8100
Mouse anti-Connexin 26	CX-1E8	33-5800
Rabbit anti-Connexin 26	UM214	51-2800
Rabbit anti-Connexin 26	Z-Z8	71-0500
Rabbit anti-Connexin 29	ZMD.81	34-4200
Rabbit anti-Connexin 30	Z-PP9	71-2200
Mouse anti-Connexin 30	CX30-8E8	33-2500
Rabbit anti-Connexin 36	CY44	51-6300
Mouse anti-Connexin 43	CX-1B1	13-8300
Rabbit anti-Connexin 43	Z-JB1	71-0700
Mouse anti-Connexin 50	C6	33-4300
Connexin Sampler Pack	3 Abs + controls	90-0500
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

*PAD: Polyclonal Antibody Designation

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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