

Product Specification Sheet

Connexin 37 (Cx37)/Gap Junction Alpha-4 Protein (CXA4) Antibodies

Cat. CX37A11-S	Rabbit Anti- Mouse Cx37 Antiserum # 1	SIZE: 100 ul
Cat. CX37A11-A	Rabbit Anti Mouse Cx37A IgG # 1 (aff pure)	SIZE: 100 ug
Cat. CX37A11-P	Mouse Connexin Cx37 Control/blocking peptide # 1	SIZE: 100 ug

Gap junctions are composed of transmembrane channels that link the cytoplasm of neighboring cells. They differ from other membrane channels since they exist between two cells. Gap junctions are relatively non-specific and allow passive diffusion of small molecules up to 1000 Dalton. The junctions exist in almost all vertebrate and non-vertebrates cells. Gap junctional channel is composed of a hemichannel (connexon) in the cell membrane of one cell joined in mirror symmetry with a connexon in the opposing cell. Each connexon is an oligomer of six protein subunits that define the axial aqueous pore. Molecular cloning studies have identified a family of at least 12 highly related Connexins that are designated according to mol. wt, **Cx26-50**.

Source of Antigen, Antibodies

Antigen	16aa peptide of Mouse CX37 (gene accession # P28235 CXA4) ; Designated (CX37A11-P or control or blocking peptide) conjugated to KLH; Epitope location ~ C-terminal, Cytoplasmic domain
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#CX37A11-S) and IgG, purified over antigen-agarose (Cat # CX37A11-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC.
Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique). (refs 2)
ELISA (1:100K; using 50-100 ng control peptide/well).
Histochemistry & Immunofluorescence: We recommend the use of affinity purified antibody at 2-20 ug/ml in formaldehyde fixed tissues. See refs in 2

Specificity & Cross-reactivity

Mouse Cx37A immunogenic peptide sequence is specific for Cx37 and no significant homology is seen with other Connexin. It shows 94%, 93% and 87% sequence homology with canine, rat and human Cx37, respectively. The Mouse Cx37A11-P peptide sequence also shows 68% homology with Xenopus Cx41 protein. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References: (1) Kumar, Nm (1996) Cell 84, 381; White , WT (1995) Kidney Intl. 48, 1148; Evans, HW (1994) Biochem. Soc. Tr. 788; Byer, E (1990) J. membrane Biol. 116, 187-194

2. Citations for ADI Antibodies (see updates at the web site)

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*This product is for in vitro research use only.

Anti- Cx26 - Cx50
CX37A11-S-A-P 70605A

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