

Sheep antibody to Connexin-45 (354-367): whole serum

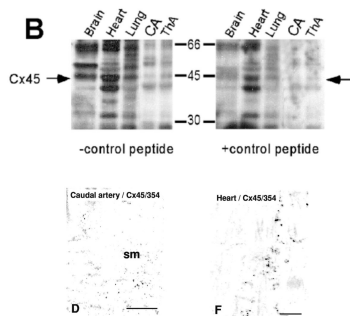
Catalogue No.:	S-061-100
Description:	Connexin-45 is a component of gap junctions, which are composed of a cluster of closely packed pairs of transmembrane channels, the connexons, through which materials of low molecular weight diffuse from one cell to a neighboring cell. SUBUNIT: A connexon is composed of a hexamer of connexins. SUBCELLULAR LOCATION: Membrane; multi-pass membrane protein. SIMILARITY: Belongs to the connexin family. Alpha-type (group II) subfamily. Alternatively spliced isoforms have been described.
Batch No.:	See product label
Unit size:	100 uL
Antigen:	A synthetic peptide (aa: 354-367) as part of human Connexin-45 protein conjugated to diphtheria toxoid has been used as the immunogen.
Sequence:	QAYSHQNNPHGPRE
Antibody Type:	Polyclonal
Other Names:	Gap junction gamma-1 protein; Gap junction alpha-7 protein; Cx45; GJC1; GJA7
Accession:	P36383 CXG1_HUMAN
Produced in:	Sheep
Purity:	Whole serum
Applications:	Immunohistochemistry: Antibody detects sparse Cxn45-IR in caudal artery and heart tissue (see Rummery, NM et al 2002 for more staining specifics). Antibody was used at 1:100 to 1:250, but Biosensis recommends optimal dilutions/concentrations should be determined by the end user. In the original work the specificity of the antibody was shown by incubation either without primary antibody or with primary antibody that had previously been pre-incubated for 1 hour at room temperature with 10-fold excess by weight of the peptide against which the antibody was raised. Western Blot: Antibody is not recommended for western blotting by Biosensis, however, it does react in westerns with Cxn 45 specific material. The authors report that the antibody develops numerous bands in westerns blots, only some of which are removed upon peptide treatment (see Rummery, NM et al 2002). The Cx45/354 antibody revealed the presence of a specific 45-kDa band in all tissues tested, although it was very weak in the arteries. A higher molecular weight band, which was blocked by peptide, was also seen in the brain (see Rummery, NM et al 2002, online Figure VIIB, +/- peptide).
Species Against:	Human
Cross-reactivity:	This antiserum recognizes Connexin-45 in rat, other species not yet tested
Form:	Lyophilised
Reconstitution:	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
Storage:	Store lyophilized antibody at 2-8C. After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
Expiry Date:	12 months after purchase

FOR RESEARCH USE ONLY

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Specific References: Original Reference

Rummary NM, Hickey H, McGurk G, Hill CE. (2002) "Connexin37 is the major connexin expressed in the media of caudal artery." *Arterioscler Thromb Vasc Biol.* 22(9):1427-32. PMID: 12231561 This antibody is referred to as Cx45/354 in Rummary, NM et al 2002.



B: Western Blotting of tissue extracts from rat brain, heart, lung, liver, caudal artery (CA) and thoracic aorta (ThA) using S-061-100. Arrows show the position of the expected Cx band. The left panels represent incubation with Cx antibody whereas right panels represent pre-incubation of the antibody with immunogenic peptide.

D and F: Immunohistochemical analysis of Cx45 expression in caudal artery (D) and heart tissue (F). Sparse Cx45 expression could be detected in CA and heart (adapted from Rummary, NM et al 2002, Supplementary Figure VII. and Figure 2).

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