

**DATASHEET**

**Connexin 43 Rabbit Polyclonal Antibody**

CAT. NO. APA07021

**KEY FEATURES**

Target	Connexin 43	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Chicken, Dog, Rabbit	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

Structural component of the gap junction, a specialized intercellular structure consisting of a cluster of closely packed pairs of transmembrane channels, the connexons, that allow passage of small molecules and electrical signals between neighboring cells . Forms homotypic and heterotypic channels gated by transjunctional voltage . May play a critical role in the physiology of hearing by participating in the recycling of potassium to the cochlear endolymph (Probable). Negative regulator of bladder functional capacity: acts by enhancing intercellular electrical and chemical transmission, thus sensitizing bladder muscles to cholinergic neural stimuli and causing them to contract . May play a role in the conductive system of ventricular myocardium and heart morphogenesis .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:500

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Rabbit polyclonal antibody to Connexin 43
Specificity	Recognizes endogenous levels of Connexin 43 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Connexin 43. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 43 kD; Observed: 43 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	GJAL; Gap junction alpha-1 protein; Connexin-43; Cx43; Gap junction 43 kDa heart protein
Gene Symbol	GJA1
Entrez Gene	2697(Human); 14609(Mouse); 24392(Rat)
SwissProt	P17302(Human); P23242(Mouse); P08050(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

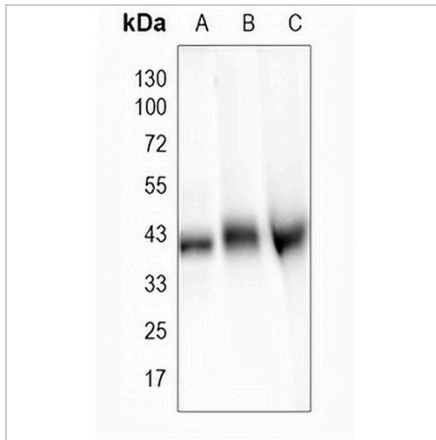
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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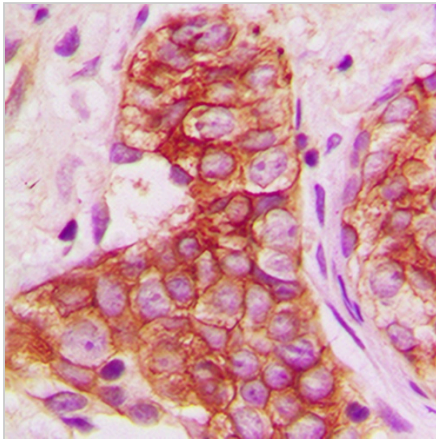
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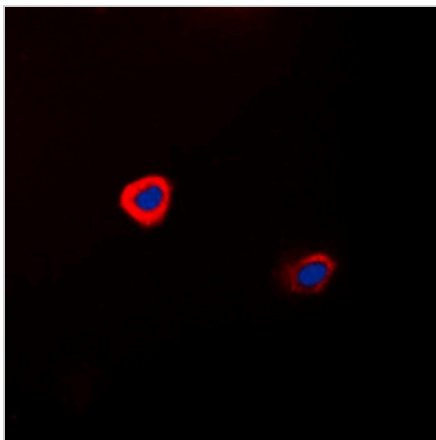
**DATA**



Western blot analysis of Connexin 43 expression in HEK293T (A), mouse heart (B), rat spinal cord (C) whole cell lysates. (Predicted band size: 43 kD; Observed band size: 43 kD)



Immunohistochemical analysis of Connexin 43 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Connexin 43 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.