

**Anti-Connexin 43/GJA1 Antibody**  
**Catalog # ABO10519****Specification**

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**Anti-Connexin 43/GJA1 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P17302</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Gap junction alpha-1 protein( GJA1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Connexin 43/GJA1 Antibody - Additional Information**

**Gene ID** 2697

**Other Names**

Gap junction alpha-1 protein, Connexin-43, Cx43, Gap junction 43 kDa heart protein, GJA1, GJAL

**Calculated MW**

43008 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Cell membrane ; Multi-pass membrane protein . Cell junction, gap junction . Endoplasmic reticulum .

**Tissue Specificity**

Expressed in the heart and fetal cochlea. .

**Protein Name**

Gap junction alpha-1 protein

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Connexin 43(366-382aa RASSRASSRPRPDLEI), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the connexin family. Alpha-type (group II) subfamily.

**Anti-Connexin 43/GJA1 Antibody - Protein Information**

**Name** GJA1

**Synonyms** GJAL

**Function**

Gap junction protein that acts as a regulator of bladder capacity. A gap junction consists of a cluster of closely packed pairs of transmembrane channels, the connexons, through which materials of low MW diffuse from one cell to a neighboring cell. May play a critical role in the physiology of hearing by participating in the recycling of potassium to the cochlear endolymph. 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 (By similarity). May play a role in cell growth inhibition through the regulation of NOV expression and localization. Plays an essential role in gap junction communication in the ventricles (By similarity).

**Cellular Location**

Cell membrane; Multi-pass membrane protein. Cell junction, gap junction. Endoplasmic reticulum {ECO:0000250|UniProtKB:P23242}. Note=Localizes at the intercalated disk (ICD) in cardiomyocytes and the proper localization at ICD is dependent on TMEM65. {ECO:0000250|UniProtKB:P23242}

**Tissue Location**

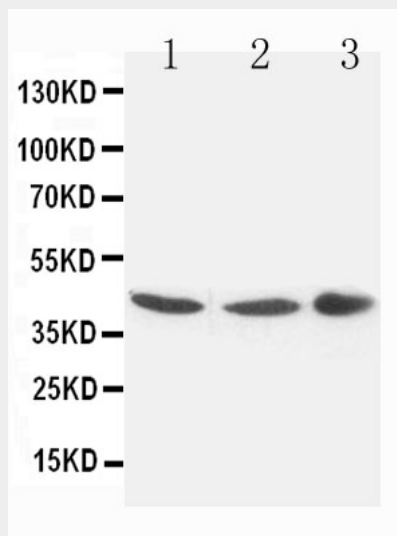
Expressed at intercalated disks in the heart (at protein level) (PubMed:11741837, PubMed:18662195). Expressed in the fetal cochlea (PubMed:11741837).

**Anti-Connexin 43/GJA1 Antibody - Protocols**

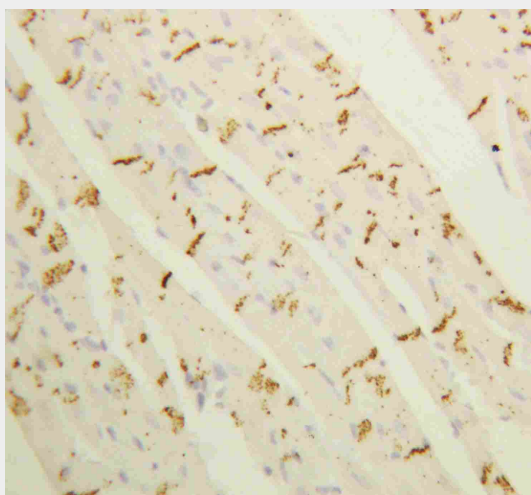
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Connexin 43/GJA1 Antibody - Images



Anti-Connexin 43/GJA1 antibody, ABO10519, Western blotting  
Lane 1: Rat Cardiac Muscle Tissue Lysate  
Lane 2: Rat Cardiac Muscle Tissue Lysate  
Lane 3: Rat Brain Tissue Lysate



Anti-Connexin 43/GJA1 antibody, ABO10519, IHC(P)  
IHC(P): Rat Cardiac Muscle Tissue

## Anti-Connexin 43/GJA1 Antibody - Background

Connexins 43(Cx43), also called GAP Junction Protein, alpha-1(GJA1). Connexin 43 is a member of the connexin gene family which abundantly expressed in the heart and liver and was mapped to 6q21-q23.2. Connexin43, the major protein of gap junctions in the heart, is targeted by several protein kinases that regulate myocardial cell-cell coupling. Mutations in the connexin43 gap-junction gene, which lead to abnormally regulated cell-cell communication, are associated with viscerotaxia. Cx43 must also play a critical role in the physiology of hearing, presumably by participating in the recycling of potassium to the cochlear endolymph.