

Anti-Connexin 43/GJA1 Antibody
Catalog # ABO10520**Specification**

Anti-Connexin 43/GJA1 Antibody - Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P17302
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, IHC-F, ICC 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

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

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 Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Connexin

43(351-367aa HELQPLAIVDQRPSSRA), 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

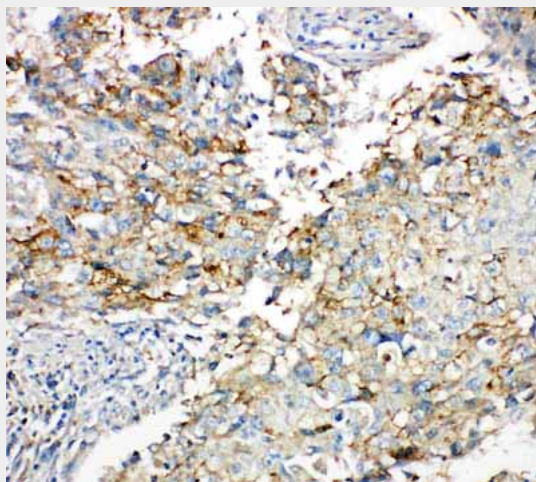
Expressed at intercalated disks in the heart (at protein level) (PubMed:11741837, PubMed:18662195). Expressed in the fetal cochlea (PubMed:11741837).

Anti-Connexin 43/GJA1 Antibody - Protocols

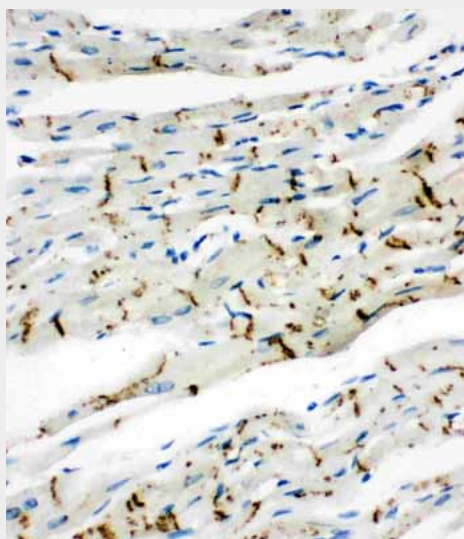
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

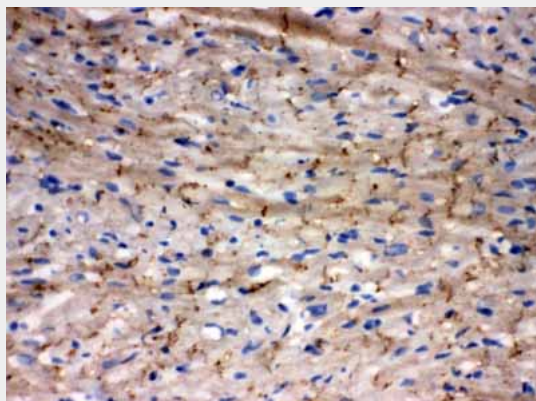
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Connexin 43/GJA1 Antibody - Images

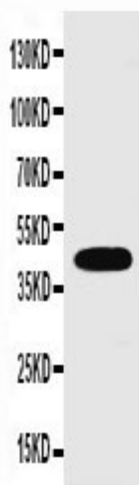
Anti-Connexin 43/GJA1 antibody, ABO10520, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti-Connexin 43/GJA1 antibody, ABO10520, IHC(P)IHC(P): Rat Cardiac Muscle Tissue



Anti-Connexin 43/GJA1 antibody, ABO10520, IHC(F)IHC(F): Rat Cardiac Muscle Tissue



Anti-Connexin 43/GJA1 antibody, ABO10520, Western blottingWB: Rat Heart Tissue Lysate

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 viscerotrial heterotaxia. Cx43 must also play a critical role in the physiology of hearing, presumably by participating in the recycling of potassium to the cochlear endolymph.