

Anti-Connexin 43/GJA1 Antibody Picoband®

Catalog Number: A00599

About GJA1

Connexin 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.

Overview

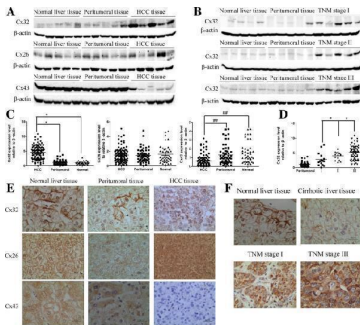
Product Name	Anti-Connexin 43/GJA1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Connexin 43/GJA1 Antibody Picoband® catalog # A00599. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P17302

Technical Details

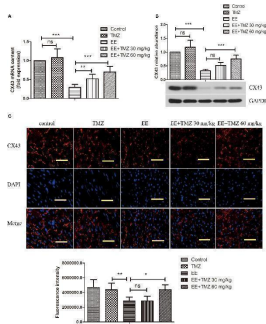
Immunogen	E.coli-derived human Connexin 43/GJA1 recombinant protein (Position: D3-R362).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat ELISA, 0.1-0.5ug/ml, -

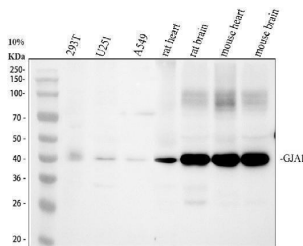
Anti-Connexin 43/GJA1 Antibody Picoband® (A00599) Images



Expression and distribution of Cx32, Cx26 and Cx43 in patients with HCC. a. The protein expression levels of Cx32, Cx26 and Cx43 were determined by western blot analysis. beta-actin was used as the loading control. b. The expression of Cx32 was correlated with increased TNM stages, as revealed by western blot analysis. beta-actin was used as the loading control. c. Statistical analysis of the relative expression levels of Cxs in HCC tissues, peritumoral tissues, and normal liver tissues. **, P

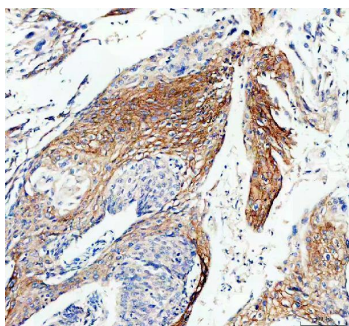


Trimetazidine suppressed EE-induced change in the expression of connexin 43 (CX43) in myocardial tissues of rats. The mRNA and protein level of CX43 was determined by real-time PCR (A), and western blot (B). The expression and distribution of CX43 in myocardial tissues were observed by immunofluorescence staining (C). Scale bar is 50 um. Each value is shown as mean \pm SD (n = 6). * P < 0.05, ** P < 0.01, *** P < 0.001, versus the indicated group. Index in PubMed under a CC BY license. PMID: 30890937

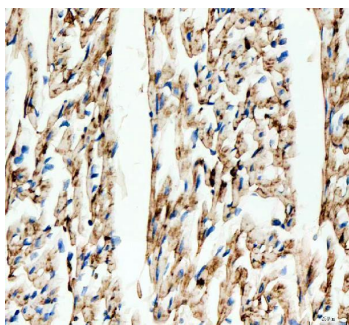


Western blot analysis of GJA1 using anti-GJA1 antibody (A00599). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: rat heart tissue lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse heart tissue lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GJA1 antigen affinity purified polyclonal antibody (A00599) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for GJA1 at approximately 43 kDa. The expected band size for GJA1 is at 43 kDa.

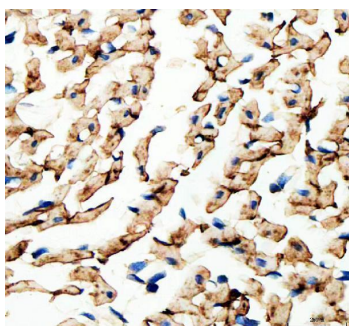
IHC analysis of GJA1 using anti-GJA1 antibody (A00599). GJA1 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GJA1 Antibody (A00599) overnight at 4°C.



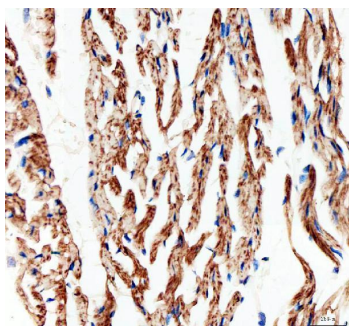
Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of GJA1 using anti-GJA1 antibody (A00599). GJA1 was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GJA1 Antibody (A00599) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



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IHC analysis of GJA1 using anti-GJA1 antibody (A00599). GJA1 was detected in a paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GJA1 Antibody (A00599) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

14 Publications Citing This Product

1. PubMed ID: 10.1186/1423-0127-19-6, Engineered myocardial tissues constructed in vivo using cardiomyocyte-like cells derived from bone marrow mesenchymal stem cells in rats
2. PubMed ID: 10.3892/mmr.2012.1185, Recombinant human brain natriuretic peptide therapy combined with bone mesenchymal stem cell transplantation for treating heart failure in rats

3. PubMed ID: 10.3233/BME-141214, Expression of Cx43 and Pax3 proteins in the human placental villi and decidua during early pregnancy

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Anti-Connexin 43/GJA1 Antibody

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