

Basic Information

Product Name	Anti-Connexin 43/GJA1 Antibody	
Gene Name	GJA1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IF	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Connexin 43(366-382aa RASSRASSRPRPDDLEI), identical to the related rat and mouse sequences.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	43KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

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.

Reference

Anti-Connexin 43/GJA1 Antibody被引用在3文献中。

Selected Validation Data

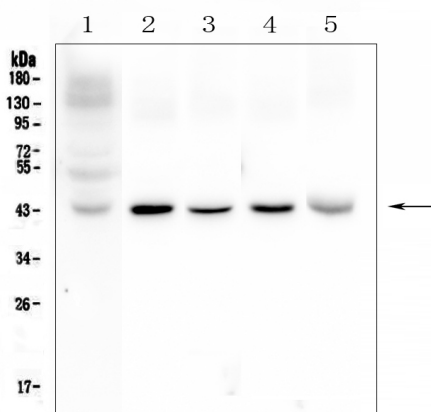


Figure 1. Western blot analysis of Connexin 43/GJA1 using anti-Connexin 43/GJA1 antibody (BA1727). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: rat brain tissue lysates, Lane 3: rat heart tissue lysates, Lane 4: mouse brain tissue lysates, Lane 5: mouse heart tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Connexin 43/GJA1 antigen affinity purified polyclonal antibody (Catalog # BA1727) at 0.5 µg/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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Connexin 43/GJA1 at approximately 43KD. The expected band size for Connexin 43/GJA1 is at 43KD.

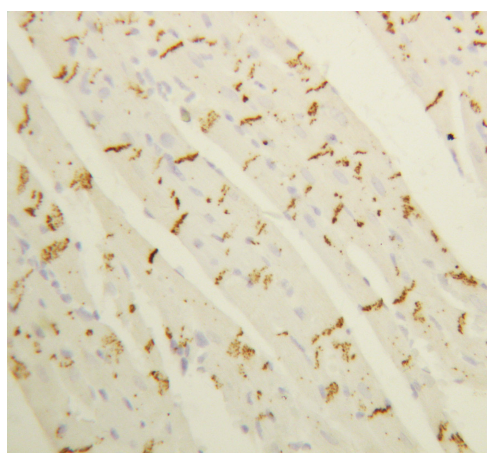


Figure 2. IHC analysis of Connexin 43/GJA1 using anti-Connexin 43/GJA1 antibody (BA1727). Connexin 43/GJA1 was detected in paraffin-embedded section of rat cardiac muscle tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Connexin 43/GJA1 Antibody (BA1727) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

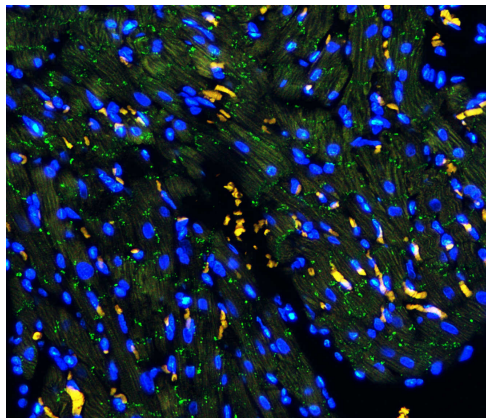


Figure 3. IF analysis of Connexin 43/GJA1 using anti- Connexin 43/GJA1 antibody (BA1727).

Connexin 43/GJA1 was detected in paraffin-embedded section of rat heart tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/mL rabbit anti- Connexin 43/GJA1 Antibody (BA1727) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C.. Visualize using a fluorescence microscope and filter sets appropriate for the label used.