BOSTER BIOLOGICAL TECHNOLOGY
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Anti-GJB2 Antibody Picoband®

Catalog Number: A00512-2

About GJB2

Connexin26(CX26), also known as GAP junction protein, beta2, GJB2. Gap junctions were first characterized by electron microscopy as regionally specialized structures on plasma membranes of contacting adherent cells. These structures were shown to consist of cell-to-cell channels. Proteins, called connexins, purified from fractions of enriched gap junctions from different tissues differ. The 3-prime untranslated region of the CX26 transcript contains a putative mRNA instability sequence. The deduced 226-amino acid protein has a calculated molecular mass of about 26 kD. CX26 shares 92.5% identity with rat Cx26. connexin 26(GJB2) is assigned to human chromosome 13q11-q12 .Connexin 26 regulates epidermal barrier and wound remodeling and promotes psoriasiform response. Connexin 26 gene(GJB2) mutation modulates the severity of hearing loss associated with the 1555A-G mitochondrial mutation.

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Overview

Product Name	Anti-GJB2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GJB2 Antibody Picoband® catalog # A00512-2. Tested in Flow Cytometry, 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	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P29033

Technical Details

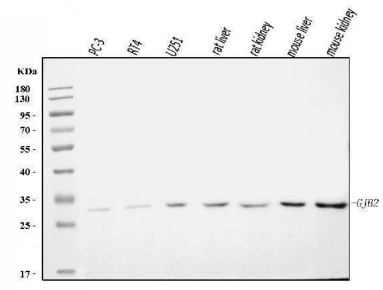
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human GJB2, which shares

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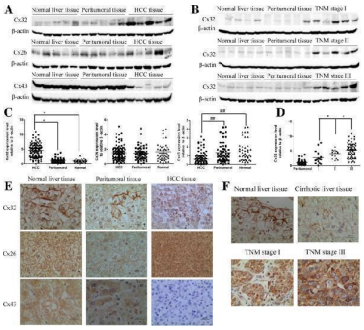
	82.4% amino acid (aa) sequence identity with mouse and rat GJB2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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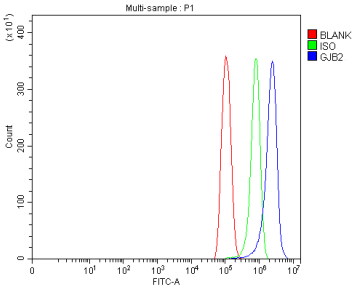
Anti-GJB2 Antibody Picoband® (A00512-2) Images



Western blot analysis of GJB2 using anti-GJB2 antibody (A00512-2). 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 30 ug of sample under reducing conditions. Lane 1: human PC-3 whole cell lysates, Lane 2: human RT4 whole cell lysates, Lane 3: human U251 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: rat kidney tissue lysates, Lane 6: mouse liver tissue lysates, Lane 7: mouse kidney 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-GJB2 antigen affinity purified polyclonal antibody (Catalog # A00512-2) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GJB2 at approximately 26 kDa. The expected band size for GJB2 is at 26 kDa.



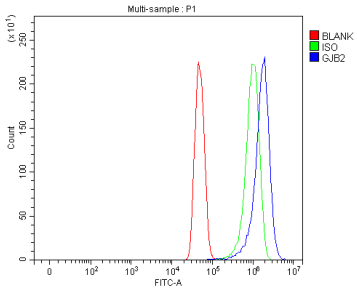
Expression and distribution of Cx32, Cx26 and Cx43 in patients with HCC. a. The protein expression levels of Cx32, Cx26 and Cx43 were determined by western blot analysis. beta-actin was used as the loading control. b. The expression of Cx32 was correlated with increased TNM stages, as revealed by western 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. ** , $P < 0.01$; ## , $P < 0.01$. d. Statistical analysis of the relative expression levels of Cx32 in peritumoral tissues and HCC tissues with different TNM stages. * , $P < 0.05$. e. Representative IHC staining of Cx32, Cx26 and Cx43 protein in normal liver tissues (left panels), peritumoral tissues (middle panels) and HCC tissues (right panels) (400×). Scale bars: 50 um. f. Representative IHC staining of Cx32 in normal liver tissues, cirrhotic tissues and early and advanced HCC tissues (400×). Scale bars: 50 um Index in PubMed under a CC BY license. PMID: 30947731



Flow Cytometry analysis of PC-3 cells using anti-GJB2 antibody (A00512-2). Overlay histogram showing PC-3 cells stained with A00512-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GJB2 Antibody (A00512-2, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the

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same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of U251 cells using anti-GJB2 antibody (A00512-2). Overlay histogram showing U251 cells stained with A00512-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GJB2 Antibody (A00512-2, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-GJB2 Antibody

For Research Use Only. Not for use in diagnostic procedures.