

## Anti-HCN2 Antibody Picoband®

Catalog Number: A02804

### About HCN2

Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated ion channel 2 is a protein that in humans is encoded by the HCN2 gene. The HCN2 gene is localized on human chromosome 19p13.3 and contains eight exons spanning approximately 27 kb. Hyperpolarization-activated cation channels of the HCN gene family, such as HCN2, contribute to spontaneous rhythmic activity in both heart and brain.

### Overview

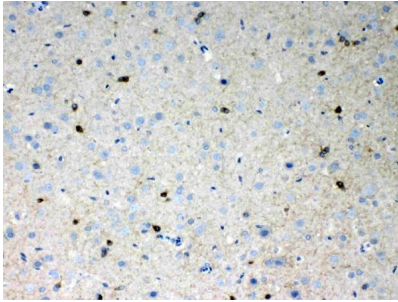
Product Name	Anti-HCN2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HCN2 Antibody Picoband® catalog # A02804. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q9UL51

### Technical Details

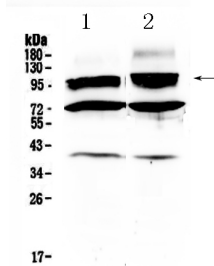
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human HCN2, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Rat, Human Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human

## Anti-HCN2 Antibody Picoband® (A02804) Images



IHC analysis of HCN2 using anti-HCN2 antibody (A02804). HCN2 was detected in paraffin-embedded section of rat brain 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 1ug/ml rabbit anti-HCN2 Antibody (A02804) 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.



Western blot analysis of HCN2 using anti-HCN2 antibody (A02804). 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: rat brain tissue lysates, Lane 2: mouse brain 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-HCN2 antigen affinity purified polyclonal antibody (Catalog # A02804) 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 1:10000 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 HCN2 at approximately 97KD. The expected band size for HCN2 is at 97KD.

## 2 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2011.455, Spironolactone diminishes spontaneous ventricular premature beats by reducing HCN4 protein expression in rats with myocardial infarction
2. PubMed ID: 10.1074/jbc.RA120.013281, The HCN domain is required for HCN channel cell-surface expression and couples voltage- and cAMP-dependent gating mechanisms

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