10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-HCN2 Picoband Antibody

Catalog # ABO10260

Specification

Anti-HCN2 Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q9UL51
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2(HCN2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HCN2 Picoband Antibody - Additional Information

Gene ID 610

Other Names
Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2, Brain cyclic nucleotide-gated channel 2, BCNG-2, HCN2, BCNG2

Calculated MW
96950 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

Subcellular Localization
Cell membrane ; Multi-pass membrane protein .

Tissue Specificity
Highly expressed throughout the brain. Detected at low levels in heart. .

Protein Name
Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human HCN2 (682-714aa VFNNQENAIIQEIVKYDREMVQQAELGQRVGLF), identical to the related mouse sequence, and different from the related rat sequence by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, 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.**

Anti-HCN2 Picoband Antibody - Protein Information

Name HCN2 (HGNC:4846)

Synonyms BCNG2

Function
Hyperpolarization-activated ion channel that is permeable to sodium and potassium ions. Displays lower selectivity for K(+) over Na(+) ions (PubMed:10228147, PubMed:22006928). Contributes to the native pacemaker currents in heart (If) and in neurons (Ih) (PubMed:10228147, PubMed:10524219). Can also transport ammonium in the distal nephron (By similarity). Involved in the initiation of neuropathic pain in sensory neurons (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein

Tissue Location
Highly expressed throughout the brain. Detected at low levels in heart.

Anti-HCN2 Picoband 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 Cytomety
- Cell Culture

Anti-HCN2 Picoband Antibody - Images

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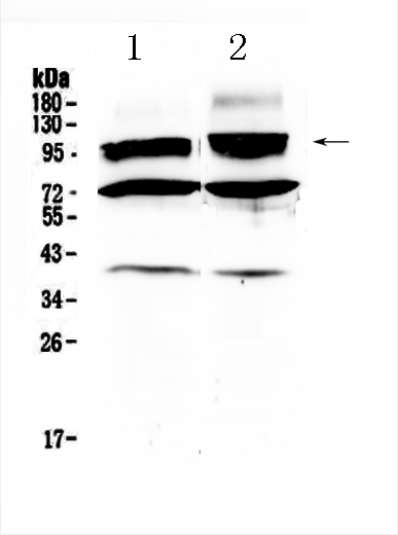

Figure 1. Western blot analysis of HCN2 using anti- HCN2 antibody (ABO10260). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue 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 # ABO10260) at 0.5 Î¼g/mL overnight at 4Â°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 with Tanon 5200 system. A specific band was detected for HCN2 at approximately 97KD. The expected band size for HCN2 is at 97KD.

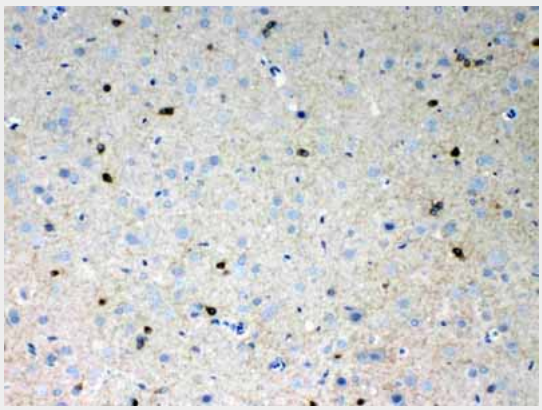

Figure 2. IHC analysis of HCN2 using anti- HCN2 antibody (ABO10260).HCN2 was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- HCN2 Antibody (ABO10260) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-HCN2 Picoband Antibody - Background

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.