

## Rabbit HCN2 Polyclonal Antibody | anti-HCN2 antibody

Anti-HCN2 Picoband Antibody

| CATALOG # | HOST   | REACTIVITY                                                    | APPLICATIONS                       |
|-----------|--------|---------------------------------------------------------------|------------------------------------|
| AAA124695 | Rabbit | Human, Mouse, Rat<br>No cross reactivity with other proteins. | Western Blot, Immunohistochemistry |

### PRODUCT SYNONYMS

HCN2; Polyclonal Antibody; Anti-HCN2 Picoband Antibody; Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2; Brain cyclic nucleotide-gated channel 2; BCNG-2; BCNG2; anti-HCN2 antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                           |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                                                    |
| Reactivity                                     | Human, Mouse, Rat<br>No cross reactivity with other proteins.                                                                                                                                                                             |
| Clonality                                      | Polyclonal                                                                                                                                                                                                                                |
| Purity/Purification                            | Immunogen affinity purified                                                                                                                                                                                                               |
| Form/Format                                    | Lyophilized                                                                                                                                                                                                                               |
| Concentration                                  | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. (varies by lot)                                                                                                                                                      |
| Sequence Length                                | 889                                                                                                                                                                                                                                       |
| Applicable Applications for anti-HCN2 antibody | WB (Western Blot), IHC (Immunohistochemistry)                                                                                                                                                                                             |
| Immunogen                                      | A synthetic peptide corresponding to a sequence at the C-terminus of human HCN2 (682-714aa VFNNQENAI IQEIVKYDREM VQQAELGQ RVGLF), identical to the related mouse sequence, and different from the related rat sequence by one amino acid. |
| Subcellular Localization                       | Cell membrane; Multi-pass membrane protein.                                                                                                                                                                                               |
| Tissue Specificity                             | Highly expressed throughout the brain. Detected at low levels in heart.                                                                                                                                                                   |
| Reconstitution                                 | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                                                      |
| Contents                                       | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Na <sub>3</sub> .                                                                                                                                 |
| Preparation and Storage                        | Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.                                |

IMAGES



**IHC (Immunohiostchemistry)**  
Figure 2. IHC analysis of HCN2 using anti- HCN2 antibody (AAA124695).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 (AAA124695) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**WB (Western Blot)**  
Figure 1. Western blot analysis of HCN2 using anti- HCN2 antibody (AAA124695).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 at 0.5ug/mL overnight at 4 degree 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.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti- HCN2 antibody | Description: 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.<br>Protein Function: Hyperpolarization-activated ion channel exhibiting weak selectivity for potassium over sodium ions. Contributes to the native pacemaker currents in heart (If) and in neurons (Ih). Can also transport ammonium in the distal nephron. Produces a large instantaneous current. Modulated by intracellular chloride ions and pH; acidic pH shifts the activation to more negative voltages (By similarity). |
| Product Categories/Family for anti- HCN2 antibody   | Neuroscience; Neurotransmission; Receptors/channels; more ion channels; Cardiovascular; Heart; cardiac arrhythmias; contractility; inotropics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------|
| NCBI GI #                        | 156071470                                                                          |
| NCBI GeneID                      | 610                                                                                |
| NCBI Accession #                 | NP_001185.3                                                                        |
| NCBI GenBank Nucleotide #        | NM_001194.3                                                                        |
| UniProt Accession #              | Q9UL51; O60742; O60743; O75267; Q9UBS2                                             |
| Molecular Weight                 | 96950 MW                                                                           |
| NCBI Official Full Name          | potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2     |
| NCBI Official Synonym Full Names | hyperpolarization activated cyclic nucleotide gated potassium and sodium channel 2 |
| NCBI Official Symbol             | HCN2                                                                               |
| NCBI Official Synonym Symbols    | BCNG2; HAC-1; BCNG-2                                                               |
| NCBI Protein Information         | potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2     |
| UniProt Protein Name             | Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2     |
| UniProt Gene Name                | HCN2                                                                               |
| UniProt Synonym Gene Names       | BCNG2; BCNG-2                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

