Datasheet for ABIN3042439

# anti-HCN1 antibody (AA 618-890)

2 Images

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## Overview

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| Quantity: | 100 µg |
| Target: | HCN1 |
| Binding Specificity: | AA 618-890 |
| Reactivity: | Human, Rat, Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This HCN1 antibody is un-conjugated |
| Application: | Western Blotting (WB) |

## Product Details

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| Purpose: | Anti-HCN1 Antibody Picoband® |
| Immunogen: | E.coli-derived human HCN1 recombinant protein (Position: E618-L890). Human HCN1 shares 82% amino acid (aa) sequence identity with both mouse and rat HCN1. |
| Isotype: | IgG |
| Cross-Reactivity (Details): | No cross-reactivity with other proteins |
| Characteristics: | Anti-HCN1 Antibody Picoband® (ABIN3042439). Tested in 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. |
| Purification: | Immunogen affinity purified. |

## Target Details

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| Target: | HCN1 |
| Alternative Name: | HCN1 (HCN1 Products) |
| Background: | Synonyms: Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1,Brain cyclic nucleotide-gated channel 1,BCNG-1,HCN1,BCNG1,<br>Tissue Specificity: Detected in brain, in particular in amygdala and hippocampus, while expression in caudate nucleus, corpus callosum, substantia nigra, subthalamic nucleus and thalamus is very low or not detectable. Detected at very low levels in muscle and pancreas. .<br>Background: Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1, also known as HAC-2 or BCNG-1, is a protein that in humans is encoded by the HCN1 gene. It is mapped to 5p12. The membrane protein encoded by this gene is a hyperpolarization-activated cation channel that contributes to the native pacemaker currents in heart and neurons. The encoded protein can homodimerize or heterodimerize with other pore-forming subunits to form a potassium channel. This channel may act as a receptor for sour tastes. Hyperpolarization-activated ion channel exhibiting weak selectivity for potassium over sodium ions. It may mediates responses to sour stimuli.<br>Sequence Similarities: Belongs to the potassium channel HCN family. |
| Molecular Weight: | 120 kDa |
| Gene ID: | 348980 |
| UniProt: | O60741 |
| Pathways: | Asymmetric Protein Localization |

## Application Details

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| Application Notes: | Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat<br>1. Santoro B, Grant SG, Bartsch D, Kandel ER (Feb 1998). "Interactive cloning with the SH3 domain of N-src identifies a new brain specific ion channel protein, with homology to eag and cyclic nucleotide-gated channels". Proc Natl Acad Sci U S A 94 (26): 14815-20. 2. Santoro B, Liu DT, Yao H, Bartsch D, Kandel ER, Siegelbaum SA, Tibbs GR (Jul 1998). "Identification of a gene encoding a hyperpolarization-activated pacemaker channel of brain". Cell 93 (5): 717-29. 3. Hofmann F, Biel M, Kaupp UB (Dec 2005). "International Union of Pharmacology. LI. Nomenclature and structure-function relationships of cyclic nucleotide-regulated channels". Pharmacol Rev 57 (4): 455-62. 4. "Entrez Gene: HCN1 hyperpolarization activated cyclic nucleotide-gated potassium channel 1" |
| Comment: | Antibody can be supported by chemiluminescence kit ABIN921124 in WB. |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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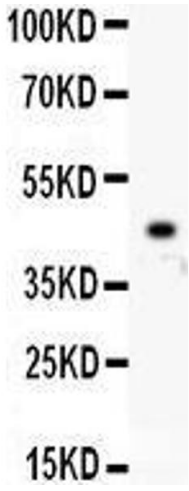
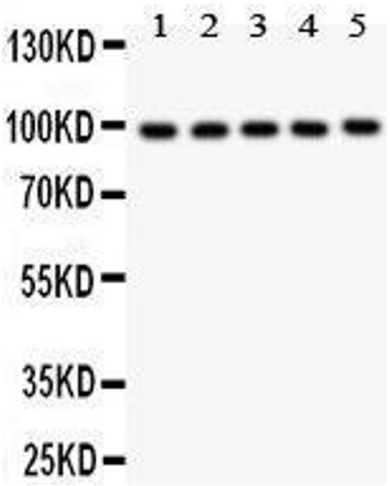
| Format: | Lyophilized |
| Reconstitution: | Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL. |
| Concentration: | 500 µg/mL |
| Buffer: | Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Avoid repeated freezing and thawing. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | 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. |

## Validation report #103590 for Western Blotting (WB)




**Western Blotting**

**Image 1.** Anti- HCN1 antibody, Western blotting All lanes: Anti HCN1 at 0.5ug/ml WB: Recombinant Human HCN1 Protein 0.5ng Predicted bind size: 45KD Observed bind size: 45KD




## Western Blotting

**Image 2.** Anti- HCN1 antibody, Western blotting All lanes: Anti HCN1 at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: HELA Whole Cell Lysate at 40ug Lane 4: U87 Whole Cell Lysate at 40ug Lane 5: MCF-7 Whole Cell Lysate at 40ug Predicted bind size: 99KD Observed bind size: 99KD