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# Rabbit Anti-HCN1 antibody

SL6604R

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| **Product Name:** | HCN1 |
| **Chinese Name:** | 脑环核苷酸门控Channel protein1/HCN1抗体 |
| **Alias:** | BCNG-1; BCNG1; Brain cyclic nucleotide gated channel 1; Brain cyclic nucleotide-gated channel 1; HAC 2; HAC2; HCN1_HUMAN; Hyperpolarization activated cyclic nucleotide gated potassium channel 1; Potassium channel, voltage-gated, brain, 1; Potassium/sodium hyperpolarization activated cyclic nucleotide gated channel 1; Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1. |
| **Organism Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **React Species:** | Human,Mouse,Rat, |
| **Applications:** | ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Molecular weight:** | 99kDa |
| **Cellular localization:** | The cell membrane |
| **Form:** | Lyophilized or Liquid |
| **Concentration:** | 1mg/ml |
| **immunogen:** | KLH conjugated synthetic peptide derived from human BCNG1/HCN1:301-400/890<Extracellular> |
| **Lsotype:** | IgG |
| **Purification:** | affinity purified by Protein A |
| **Storage Buffer:** | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **PubMed:** | PubMed |
| **Product Detail:** | Hyperpolarization activated cation channels of the HCN gene family such as HCN1, contribute to spontaneous rhythmic activity in both heart and brain. HCN1 is a member |

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| | of a family of pacemaker channels activated by hyperpolarisation and regulated by cyclic nucleotides. HCN1 and HCN2 play an important role for motor learning and neuronal integration by cerebellar Purkinje cells; as well as, shaping autonomous activity of single neurons and the periodicity of network oscillations. HCN1 expression is highly enriched in cerebral cortex, hippocampus, cerebellum, and facial motor nucleus. HCN2 is highly abundant in mamillary bodies, pontine nucleus, ventral cochlear nucleus, and nucleus of the trapezoid body. These variations in regional specificity of HCN channels could generate important differences in neuronal pacemaker activity across brain systems.<br><br>**Function:**<br>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). Activated by cAMP, and at 10-100 times higher concentrations, also by cGMP. May mediate responses to sour stimuli.<br><br>**Subunit:**<br>Homodimer (Probable). Interacts with human herpesvirus 8 MIR2 protein (Probable). Interacts with MUC1 and promotes cell aggregation in epithelial cells. Interacts with ARHGEF26/SGEF. Binds to coxsackievirus A21 capsid proteins and acts as a receptor for this virus.<br><br>**Subcellular Location:**<br>Membrane; Single-pass type I membrane protein.<br><br>**Tissue Specificity:**<br>Predominantly expressed in brain. Highly expressed in apical dendrites of pyramidal neurons in the cortex, in the layer corresponding to the stratum lacunosum-moleculare in the hippocampus and in axons of basket cells in the cerebellum. Expressed in a subset of elongated cells in taste buds.<br><br>**Post-translational modifications:**<br>N-glycosylated.<br><br>**Similarity:**<br>Belongs to the immunoglobulin superfamily. ICAM family.<br>ontains 5 Ig-like C2-type (immunoglobulin-like) domains.<br><br>**SWISS:**<br>O60741<br><br>**Gene ID:**<br>348980<br><br>**Database links:** |

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| | Entrez Gene: 348980Human<br>Entrez Gene: 15165Mouse<br>Entrez Gene: 84390Rat<br>Omim: 602780Human<br>SwissProt: O60741Human<br>SwissProt: O88704Mouse<br>SwissProt: Q9JKB0Rat<br>Unigene: 353176Human<br>Unigene: 650434Human<br>Unigene: 343429Mouse<br>Unigene: 21408Rat<br><br>**Important Note:**<br>This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |