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HCN2 Rabbit pAb

Catalog # AP99625

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UL51
Other Accession	Q9UL51
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	96950
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HCN2
Epitope Specificity	61-150/889
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SIMILARITY	Belongs to the potassium channel HCN family. Contains 1 cyclic nucleotide-binding domain.
SUBUNIT	The potassium channel is probably composed of a homo- or heterotetrameric complex of pore-forming subunits. Heteromultimer with HCN1. Interacts with KCNE2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Hyperpolarization-activated, cyclic nucleotide-binding channels (HCN) are voltage-gated cation channels that are activated by direct binding of intracellular cyclic nucleotides. The HCN family consists of four members (HCN1–4), each with a core transmembrane segment domain and a carboxy-terminal 120 amino-acid cyclic nucleotide-binding domain motif (1). HCN channels are expressed in the brain, heart, thalamus and testis (1). The pacemaker properties of HCN channels contribute to spontaneous rhythmic activity in the brain and heart (1). The genes encoding human HCN1 and HCN2 map to chromosomes 5 and 19p13.3, respectively (2,3). The genes encoding HCN3 and HCN4 map to chromosomes 1q21.3 and 15q24-q25, respectively (4,5).

Additional Information

Gene ID	610
Other Names	BCNG-2; BCNG2; EIG17; FEB2; GEFSP11; HAC-1; HAC1; trls; HCN2_HUMAN; HCN2; Brain cyclic nucleotide-gated channel 2 (BCNG-2); HCN2_MOUSE; Hyperpolarization-activated cation channel 1 (HAC-1); HCN2_RAT; hyperpolarization activated cyclic nucleotide gated potassium and sodium channel 2; hyperpolarization activated cyclic nucleotide-gated potassium channel 2; hyperpolarization activated cyclic nucleotide gated potassium channel 2

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.