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HCN1 Rabbit pAb

Catalog # AP98720

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O60741
Other Accession	O60741
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98796
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human BCNG1/HCN1
Epitope Specificity	301-400/890
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the immunoglobulin superfamily. ICAM family. ontains 5 Ig-like C2-type (immunoglobulin-like) domains.
SUBUNIT	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.
Post-translational modifications	N-glycosylated.
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 cation channels of the HCN gene family such as HCN1, contribute to spontaneous rhythmic activity in both heart and brain. HCN1 is a member 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.

Additional Information

Gene ID	348980
Other Names	BCNG-1; BCNG1; DEE24; EIEE24; GEFSP10; HAC-2; C630013B14Rik; HAC2; HCN1_HUMAN; HCN1; Brain cyclic nucleotide-gated channel 1 (BCNG-1); HCN1_MOUSE; Hyperpolarization-activated cation channel 2 (HAC-2);

	HCN1_RAT; hyperpolarization activated cyclic nucleotide gated potassium channel 1; hyperpolarization activated cyclic nucleotide-gated potassium channel 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	HCN1
Synonyms	BCNG1
Function	Hyperpolarization-activated ion channel that are permeable to sodium and potassium ions (PubMed:15351778, PubMed:28086084). Displays lower selectivity for K(+) over Na(+) ions (PubMed:28086084). Contributes to the native pacemaker currents in heart (If) and in the generation of the I(h) current which controls neuron excitability (PubMed:29936235, PubMed:30351409). Participates in cerebellar mechanisms of motor learning (By similarity). May mediate responses to sour stimuli (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	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

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