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HCN3 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59406

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9P1Z3
Reactivity	Human
Predicted	Mouse, Rat, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	86032
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HCN3
Epitope Specificity	51-150/774
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein.
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.
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 C-terminal 120 amino-acid cyclic nucleotide-binding domain motif. HCN channels are expressed in the brain, heart, thalamus and testis. The pacemaker properties of HCN channels contribute to spontaneous rhythmic activity in the brain and heart. HCN3 contains a segment characterized by a series of positively charged amino acids at every third position. This region designated S4 is likely to be the voltage sensor of the protein. In the brain, HCN3 and HCN4 exhibit subcortical distribution mainly concentrated in the hypothalamus and thalamus, respectively.

Additional Information

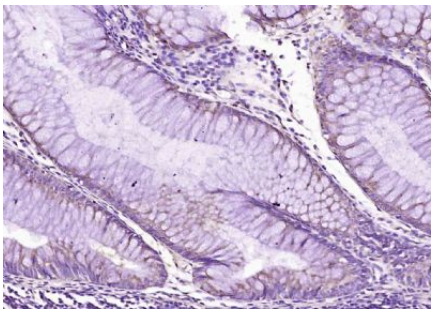
Gene ID	57657
Other Names	Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 3, HCN3, KIAA1535
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	HCN3
Synonyms	KIAA1535
Function	Hyperpolarization-activated ion channel that are permeable to sodium and potassium ions, with an about 3:1 preference for potassium ions (PubMed:16043489). Contributes to the native pacemaker currents in heart (If) and in neurons (Ih). In particular, plays a pivotal role in maintaining excitability and promoting rhythmic burst firing within hypothalamic nuclei. Exerts a significant influence on the configuration of the cardiac action potential waveform. Does not appear to play a prominent role in the processing of acute, neuropathic, or inflammatory pain (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected in brain..

Images



Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (APR3) Polyclonal Antibody, Unconjugated (AP59406) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.