

Product datasheet for **TA326543**

Hcn1 Mouse Monoclonal Antibody [Clone ID: S70-28]

Product data:

Product Type:	Primary Antibodies
Clone Name:	S70-28
Applications:	IHC, WB
Recommended Dilution:	WB: 1-10ug/ml, IHC: 0.1-1.0ug/ml, IF: 1.0-10ug/ml
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Fusion protein amino acids 778-910 (C terminus) of rat HCN1
Formulation:	PBS pH7.4, 50% glycerol
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	hyperpolarization-activated cyclic nucleotide-gated potassium channel 1
Database Link:	NP_445827 Entrez Gene 15165 Mouse Entrez Gene 348980 Human Entrez Gene 84390 Rat Q9JKB0



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Background:

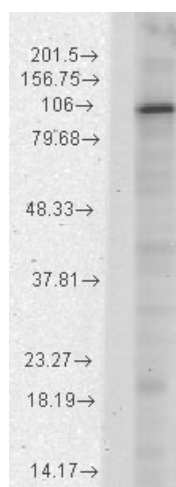
Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. They are present in the membranes that surround all biological cells because their main function is to regulate the flow of ions across this membrane. Whereas some ion channels permit the passage of ions based on charge, others conduct based on a ionic species, such as sodium or potassium. Furthermore, in some ion channels, the passage is governed by a gate which is controlled by chemical or electrical signals, temperature, or mechanical forces. There are a few main classifications of gated ion channels. There are voltage- gated ion channels, ligand- gated, other gating systems and finally those that are classified differently, having more exotic characteristics. The first are voltage- gated ion channels which open and close in response to membrane potential. These are then separated into sodium, calcium, potassium, proton, transient receptor, and cyclic nucleotide-gated channels; each of which is responsible for a unique role. Ligand-gated ion channels are also known as ionotropic receptors, and they open in response to specific ligand molecules binding to the extracellular domain of the receptor protein. The other gated classifications include activation and inactivation by second messengers, inward-rectifier potassium channels, calcium-activated potassium channels, two-pore-domain potassium channels, light-gated channels, mechano-sensitive ion channels and cyclic nucleotide-gated channels. Finally, the other classifications are based on less normal characteristics such as two-pore channels, and transient receptor potential channels. Specifically, hyperpolarization-activated cation channels of the HCN gene family, such as HCN1, play a crucial role in the regulations of cell excitability. Importantly, they contribute to spontaneous rhythmic activity in both the heart and brain.

Synonyms:

BCNG-1; BCNG1; HAC-2

Note:

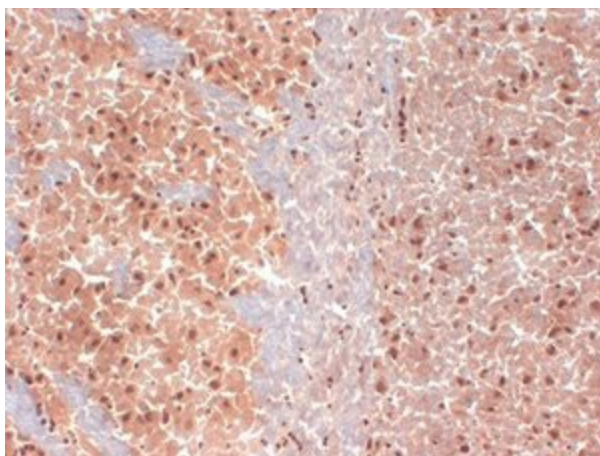
Detects ~100kDa. No cross-reactivity against HCN2

Product images:

Western blot analysis of HCN1 in rat brain membrane lysates using a 1:1000 dilution of the antibody



IHC analysis of HCN1 using the antibody



IHC analysis of HCN1 in frozen sections of mouse brain extract using the antibody