

Product datasheet for **TA326545**

Hcn4 Mouse Monoclonal Antibody [Clone ID: S114-10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	S114-10
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 1-019-1198 (c-terminus) of rat HCN4
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 4
Database Link:	NP_067690 Entrez Gene 10021 HumanEntrez Gene 330953 MouseEntrez Gene 59266 Rat Q9JKA7



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Background:

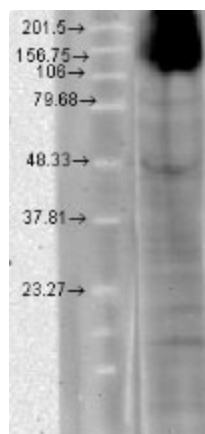
Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. They are present in the membranes that surround all biological cells because their main function 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 contribute to spontaneous rhythmic activity in both the heart and brain.

Synonyms:

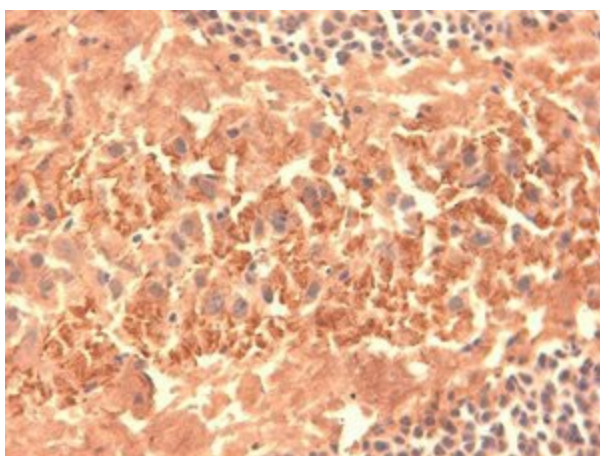
SSS2

Note:

Detects ~130kDa. No cross-reactivity against other HCNs

Product images:

Western blot analysis of HCN4 in T-HEK cells using a 1:1000 dilution of the antibody



IHC analysis of HCN4 in frozen sections of mouse brain extracts using the antibody