

## Product datasheet for **TA328956**

### Hcn3 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)QRATGDGSPRRKGSER corresponding to amino acid residues 727-744 of rat HCN3 . Intracellular, C-Terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
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 3
Database Link:	<a href="#">NP_446137</a> <a href="#">Entrez Gene 114245 Rat</a> <a href="#">Q9JKA8</a>



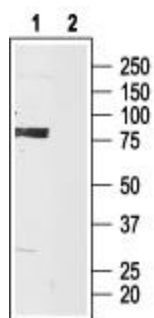
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**Background:**

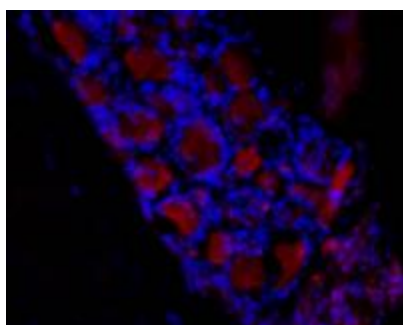
Hyperpolarization-activated cation currents (I<sub>h</sub>) appear in the heart and the brain and have a crucial role in controlling electrical pacemaker activity, contributing to biological processes such as heartbeat, sleep-wake cycle and synaptic plasticity. The I<sub>h</sub> currents are generated by the Hyperpolarization-activated cyclic nucleotide-gated channel family (HCN), which is comprised of four homologous members, HCN1-4. Each HCN subunit consists of six transmembrane domains (TM), a pore region between TM5-TM6 and a binding domain for cyclic nucleotides (CNBD) in the cytoplasmic C-terminus. The HCN subunits can form functional homomers and can also co-assemble into functionally heteromers. The channels are closely related to each other and share a homology of about 60%. However, their similarity decreases in the cytoplasmic N- and C-termini. The channels HCN1-4 mainly differ from each other in their speed of activation and the extent to which they are modulated by cAMP. HCN1, weakly affected by cAMP, is the fastest channel, followed by HCN2, HCN3 and HCN4. HCN1 is extensively expressed in the brain, in specific areas like the neocortex, hippocampus, cerebellum and superior colliculus.

**Synonyms:**

KIAA1535; MGC131493

**Product images:**

Western blot analysis of HCN3 in rat brain lysate: 1. Anti-HCN3 antibody, (1:200). 2. Anti-HCN3 antibody, preincubated with the control peptide antigen.



Expression of HCN3 in Rat Dorsal Root Ganglia (DRG) Immunohistochemical staining of frozen section of rat DRG using Anti-HCN3 antibody, (1:50) followed by mouse anti-rabbit Alexa Fluor 555 (red). Staining is present in neuronal cell bodies. Hoechst 33342 (blue) is used as counterstain.