

# Immunotag™ HCN4 Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                    |
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| Catalog No.            | ITN1091                                                                                                                                                            |
| Product Description    | Immunotag™ HCN4 Polyclonal Antibody                                                                                                                                |
| Size                   | 50 µg, 100 µg                                                                                                                                                      |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                      |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return. |
| Target Protein         | HCN4                                                                                                                                                               |
| Clonality              | Polyclonal                                                                                                                                                         |
| Storage/Stability      | -20°C/1 year                                                                                                                                                       |
| Application            | WB,ELISA                                                                                                                                                           |
| Recommended Dilution   | WB 1:500-2000 ELISA 1:5000-20000                                                                                                                                   |
| Concentration          | 1 mg/ml                                                                                                                                                            |
| Reactive Species       | Human,Rat,Mouse                                                                                                                                                    |
| Host Species           | Rabbit                                                                                                                                                             |
| Immunogen              | Synthesized peptide derived from human protein, at AA range: 600-680                                                                                               |
| Specificity            | HCN4 Polyclonal Antibody detects endogenous levels of protein.                                                                                                     |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                               |
| Form                   | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.                                                                                                     |
| Gene Name              | HCN4                                                                                                                                                               |
| Accession No.          | Q9Y3Q4 O70507 Q9JKA7                                                                                                                                               |

## Antibody Specification

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| Description              | hyperpolarization activated cyclic nucleotide gated potassium channel 4(HCN4) Homo sapiens This gene encodes a member of the hyperpolarization-activated cyclic nucleotide-gated potassium channels. The encoded protein shows slow kinetics of activation and inactivation, and is necessary for the cardiac pacemaking process. This channel may also mediate responses to sour stimuli. Mutations in this gene have been linked to sick sinus syndrome 2, also known as atrial fibrillation with bradyarrhythmia or familial sinus bradycardia. Two pseudogenes have been identified on chromosome 15. [provided by RefSeq, Oct 2008],                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protein Expression       | Heart,Thalamus,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Subcellular Localization | plasma membrane,integral component of plasma membrane,intrinsic component of plasma membrane,perinuclear region of cytoplasm,HCN channel complex,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protein Function         | disease:Defects in HCN4 are a cause of sick sinus syndrome type 2 (SSS2) [MIM:163800]; also known as atrial fibrillation with bradyarrhythmia or familial sinus bradycardia. The term 'sick sinus syndrome' encompasses a variety of conditions caused by sinus node dysfunction. The most common clinical manifestations are syncope, presyncope, dizziness, and fatigue. Electrocardiogram typically shows sinus bradycardia, sinus arrest, and/or sinoatrial block. Episodes of atrial tachycardias coexisting with sinus bradycardia ('tachycardia-bradycardia syndrome') are also common in this disorder. SSS occurs most often in the elderly associated with underlying heart disease or previous cardiac surgery, but can also occur in the fetus, infant, or child without heart disease or other contributing factors, in which case it is considered to be a congenital disorder.,domain:The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.,function:Hyperpolarization-activated ion channel with very slow activation and inactivation exhibiting weak selectivity for potassium over sodium ions. May contribute to the native pacemaker currents in heart (If) and in neurons (Ih). Activated by cAMP. May mediate responses to sour stimuli.,miscellaneous:Inhibited by extracellular cesium ions.,similarity:Belongs to the potassium channel HCN family.,similarity:Contains 1 cyclic nucleotide-binding domain.,subunit:The potassium channel is probably composed of a homo- or heterotetrameric complex of pore-forming subunits.,tissue specificity:Highly expressed in thalamus, testis and in heart, both in ventricle and atrium. Detected at much lower levels in amygdala, substantia nigra, cerebellum and hippocampus., |
| Usage                    | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |