

Datasheet for ABIN7043277

anti-HCN1 antibody (Intracellular)



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2 Images

Overview

Quantity:	25 µL
Target:	HCN1
Binding Specificity:	AA 6-24, Intracellular
Reactivity:	Rat
Host:	Guinea Pig
Clonality:	Polyclonal
Conjugate:	This HCN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Guinea Pig Polyclonal Antibody to HCN1 Channel
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)KPNSASNSRDDGNSVYPSK, corresponding to amino acid residues 6-24 of rat HCN1
Isotype:	IgG
Specificity:	Intracellular, N-terminus
Predicted Reactivity:	human - 16,19 amino acid residues identical, Mouse - 18
Characteristics:	Guinea pig Anti-HCN1 Antibody is directed against an epitope of the rat HCN1 channel. Guinea pig Anti-HCN1 Antibody raised in guinea pig can be used in western blot and immunohistochemistry applications. It has been designed to recognize HCN1 from human, rat and mouse samples. The antigen used to immunize guinea pigs is the same as Anti-HCN1

Product Details

Antibody (ABIN7043278, ABIN7044970 and ABIN7044971) raised in rabbit. Our line of guinea pig antibodies enables more flexibility with our products such as multiplex staining studies, immunoprecipitation, etc.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: HCN1

Alternative Name: HCN1 ([HCN1 Products](#))

Background: Hyperpolarization-activated cyclic nucleotide-gated potassium channel 1, HAC2, Brain cyclic nucleotide-gated channel 1, BCNG1, Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1, Hyperpolarization-activated cation currents (Ih) 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.^{1,2} The Ih 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.² The HCN subunits can form functional homomers and can also co-assemble into functional heteromers.² 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.^{2,3}

Alternative names: HCN1, Hyperpolarization-Activated Cyclic Nucleotide-Gated Potassium Channel 1, HAC2, BCNG1

Gene ID: 84390

NCBI Accession: [NM_021072](#)

UniProt: [Q9JKB0](#)

Pathways: [Asymmetric Protein Localization](#)

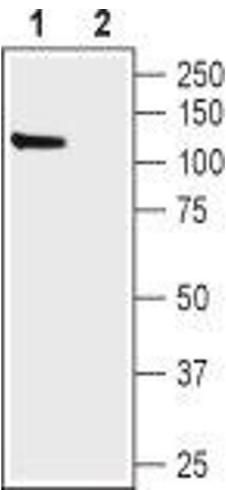
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:500
Comment:	Cited Application: ICC IHC Negative Control: (ABIN7235782) Blocking Peptide: (ABIN7235782)
Restrictions:	For Research Use only

Handling

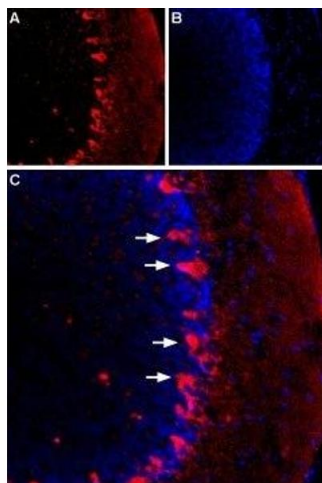
Format:	Lyophilized
Reconstitution:	Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



Western Blotting

Image 1. Western blot analysis of rat brain lysate: - 1. Guinea pig Anti-HCN1 Antibody (ABIN7043277, ABIN7045448 and ABIN7045449), (1:500).2. Guinea pig Anti-HCN1 Antibody, preincubated with HCN1 Blocking Peptide (#BLP-PC056).



Immunohistochemistry

Image 2. Expression of HCN1 in rat cerebellum - Immunohistochemical staining of rat cerebellum using Guinea pig Anti-HCN1 Antibody (ABIN7043277, ABIN7045448 and ABIN7045449). A. HCN1 staining (red) appears in the pinceau structures (arrows). B. DAPI is used as the counterstain (blue). C. Merged image of A and B.