

Mouse HCN1 Monoclonal Antibody | anti-Hcn1 antibody

HCN1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103316	Mouse	Human, Mouse, Rat	Immunohistochemistry, Immunoprecipitation, Western Blot

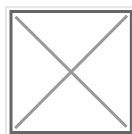
PRODUCT SYNONYMS

HCN1; Monoclonal Antibody; HCN1 Antibody; BCNG-1; BCNG1; Brain cyclic nucleotide gated channel 1; Brain cyclic nucleotide-gated channel 1; HAC2; HCN1_HUMAN; Hyperpolarization activated cyclic nucleotide gated potassium channel 1; anti-Hcn1 antibody

PRODUCT SPECIFICATIONS

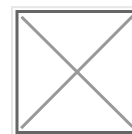
Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	S70-28
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	910
Applicable Applications for anti-Hcn1 antibody	IHC (Immunohistochemistry), IP (Immunoprecipitation), WB (Western Blot)
Certificate of Analysis	1 ug/mL was sufficient for detection of HCN1 in 10ug of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Storage Buffer	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES



IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70-28. Tissue: Frozen brain section. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 ul for 5 minutes at RT.



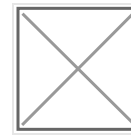
IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70-28. Tissue: Frozen brain section. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 ul for 5 minutes at RT. Localization: Neurons.



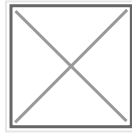
IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70-28.
Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded.
Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody at 1:1000 for 1 hour at RT.
Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



WB (Western Blot)

Western Blot analysis of Rat brain membrane lysate showing detection of HCN1 protein using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70-28. Load: 15 ug. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70-28.
Tissue: Cerebellum. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT.
Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody at 1:1000 for 1 hour at RT.
Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 ul for 5 minutes at RT. Localization: Cytoplasmic staining of Purkinje cells.

ADDITIONAL INFORMATION

Related Product Information for anti-Hcn1 antibody	Background Info: Detects ~100kDa. No cross-reactivity against HCN2 Scientific 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 (1). 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 (2). Specifically, hyperpolarization-activated cation channels of the HCN gene family, such as HCN1, play a crucial role in the regulators of cell excitability. Importantly, they contribute to spontaneous rhythmic activity in both the heart and brain (3).
Product Categories/Family for anti-Hcn1 antibody	Ion Channels ; Neuroscience
References	1. Hille B. (2001) Ion Channels of Excitable Membranes, 3rd Ed., Sinauer Associated Inc.:Sunderland, MA USA. 2. www.iochannels.org 3. Zong X., et al. (2005) J Biol Chem. 280(40): 34224-34232.

NCBI AND UNIPROT INFORMATION

NCBI GI #	16758108
NCBI GeneID	84390
NCBI Accession #	NP_445827.1
NCBI GenBank Nucleotide #	NM_053375.1
UniProt Accession #	Q9JKBO ; Q9JKB0

Molecular Weight	102,422 Da
NCBI Official Full Name	potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1
NCBI Official Synonym Full Names	hyperpolarization-activated cyclic nucleotide-gated potassium channel 1
NCBI Official Symbol	Hcn1
NCBI Protein Information	potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1
UniProt Protein Name	Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1
UniProt Gene Name	Hcn1
UniProt Entry Name	HCN1_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/hcn1-antibody-clone-s70-28-immunohistochemistry-immunoprecipitation-western-blot-elisa/103316>