10320 Camino Santa Fe, Suite G
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HCN1 Antibody
HCN1 Antibody, Clone S70-28
Catalog # ASM10182

Specification

HCN1 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q9JKBO
Other Accession	NP_445827.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**

Description
Mouse Anti-Rat HCN1 Monoclonal IgG1

Target/Specificity
Detects ~100kDa. No cross-reactivity against HCN2.

Other Names
BCNG-1 Antibody, BCNG1 Antibody, Brain cyclic nucleotide gated channel 1 Antibody, Brain cyclic nucleotide-gated channel 1 Antibody, HAC2 Antibody, HCN1 Antibody, HCN1_HUMAN Antibody, Hyperpolarization activated cyclic nucleotide gated potassium channel 1 Antibody, Potassium/sodium hyperpolarization activated cyclic nucleotide gated channel 1 Antibody, Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 1 Antibody

Immunogen
Fusion protein amino acids 778-910 (C terminus) of rat HCN1

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-304 was sufficient for detection of HCN1 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Membrane

HCN1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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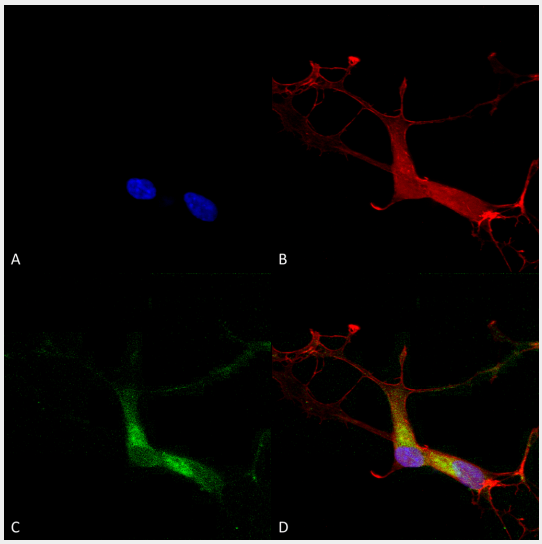
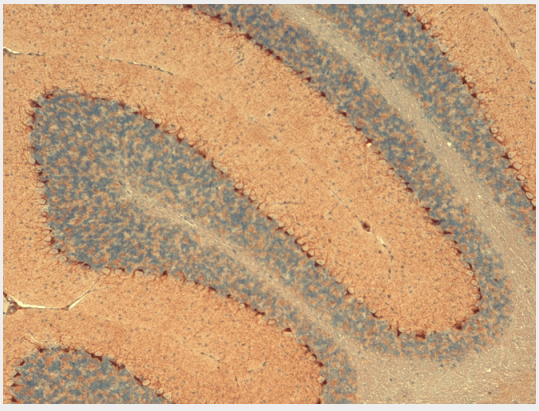
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HCN1 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:100 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) HCN1 Antibody (D) Composite.



Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Cerebellum. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) 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 µl for 5 minutes at RT. Localization: Cytoplasmic staining of Purkinje cells.

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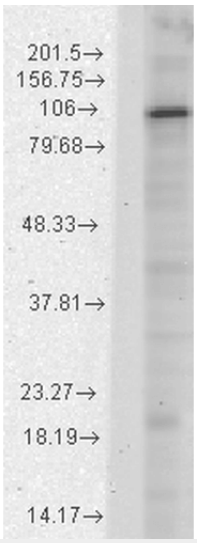
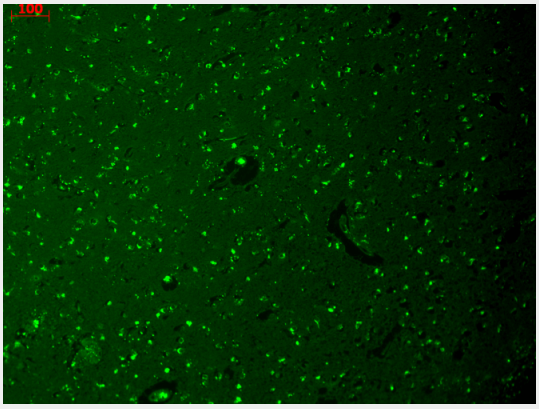
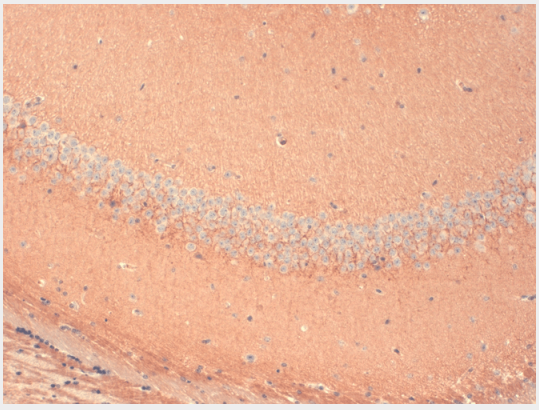


Western Blot analysis of Rat brain membrane lysate showing detection of HCN1 protein using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

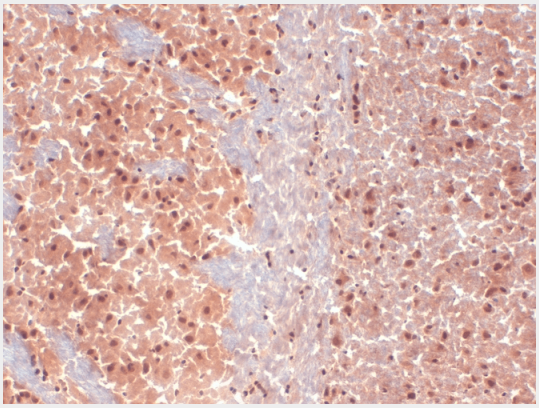


Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Frozen brain section. Species: Mouse. Fixation: 10% Formalin Solution for

12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) 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 µl for 5 minutes at RT. Localization: Neurons.



Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Frozen brain section. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) 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 µl for 5 minutes at RT.

HCN1 Antibody - Background

Hyperpolarization-activated cation channels of the HCN gene family, such as HCN1, play a crucial role in the regulatons of cell excitability. Importantly, they contribute to spontaneous rhythmic activity in both the heart and brain (1).

HCN1 Antibody - References

1. Zong X., et al. (2005) J Biol Chem. 280(40): 34224-34232.