

**HCN1 Antibody**  
**HCN1 Antibody, Clone S70-28**  
**Catalog # ASM10182****Specification**

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**HCN1 Antibody - Product Information**

Application	WB, IHC, IP
Primary Accession	<a href="#">O9JKBO</a>
Other Accession	<a href="#">NP_445827.1</a>
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 **-20°C**

**Storage Buffer**

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

Shipping Temperature

**Blue Ice or 4°C**

**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

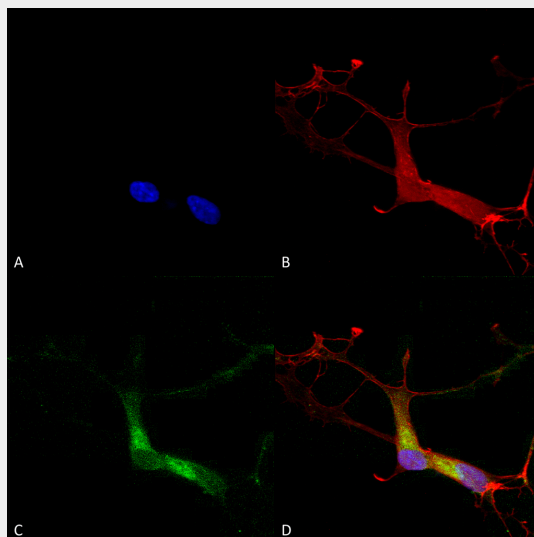
**HCN1 Antibody - Protocols**

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

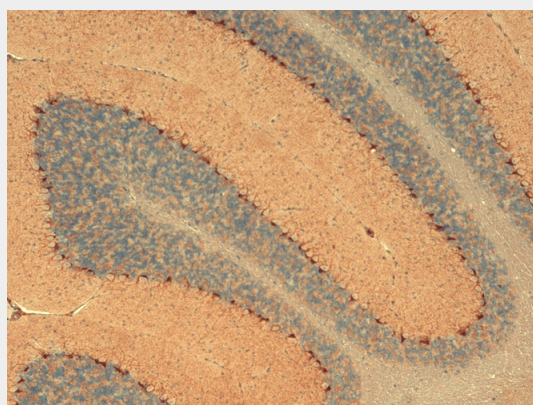
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

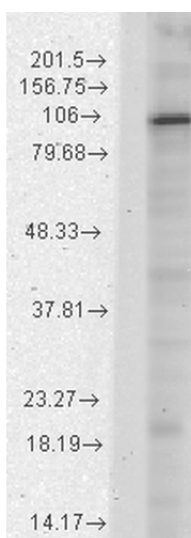
## HCN1 Antibody - Images



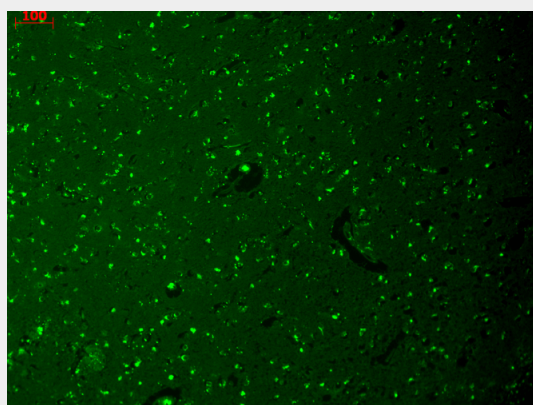
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:100 for overnight at 4°C with slow 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.



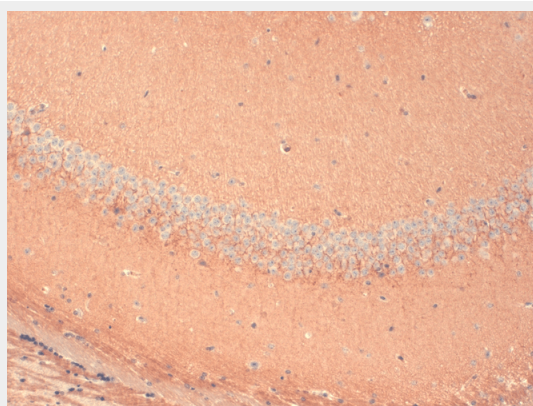
Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: Cerebellum. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB 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.



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.

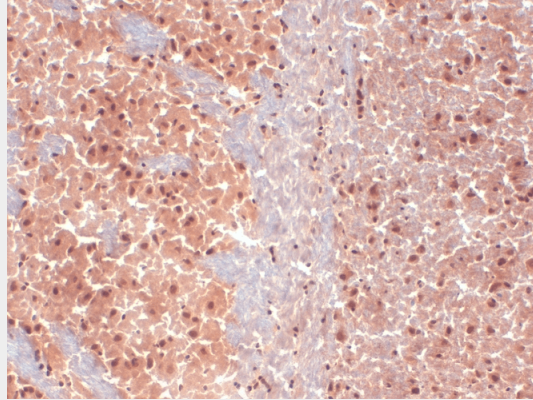


Immunohistochemistry analysis using Mouse Anti-HCN1 Monoclonal Antibody, Clone S70 (ASM10182). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-HCN1 Monoclonal Antibody (ASM10182) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat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