Datasheet for ABIN2481391

anti-HCN2 antibody (AA 761-863) (PE)

6 Images

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Overview

Quantity:	100 µg
Target:	HCN2
Binding Specificity:	AA 761-863
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HCN2 antibody is conjugated to PE
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC), Antibody Array (AA)

Product Details

Immunogen:	Fusion protein amino acids 761-863 (cytoplasmic C-terminus) of rat HCN2
Clone:	S71
Isotype:	IgG1
Specificity:	Detects ~95 kDa. No cross-reactivity against HCN1.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	HCN2

Target Details

Alternative Name:	HCN2 (HCN2 Products)
Background:	Hyperpolarization-activated cyclic nucleotide-gated ion channel 2 (HCN2) is an integral membrane protein that helps 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). Ion channels 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 contribute to spontaneous rhythmic activity in both the heart and brain (3).
Gene ID:	114244
NCBI Accession:	NP_446136
UniProt:	Q9JKA9

Application Details

Application Notes:	• WB (1:1000) • IHC (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2481391 was sufficient for detection of HCN2 in 10 µg of rat brain lysate by

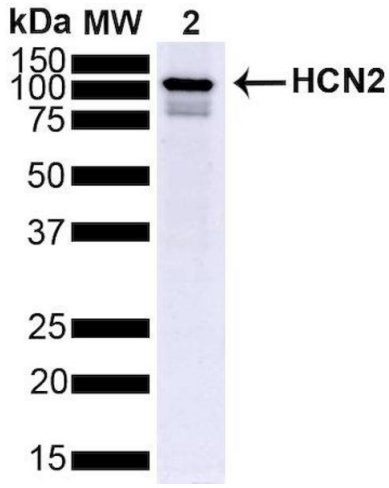
Application Details

	colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

Handling

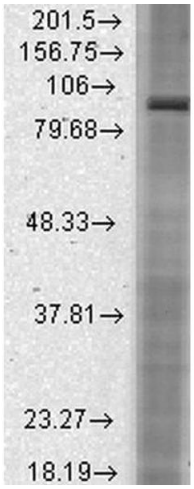
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



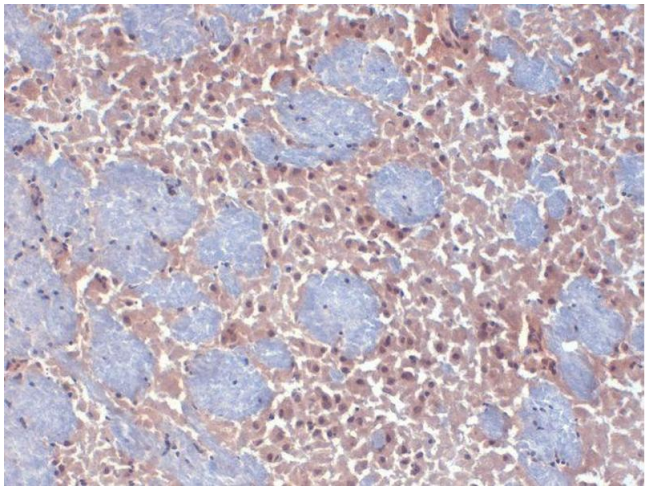
Western Blotting

Image 1. Western Blot analysis of Mouse Brain showing detection of ~95 kDa HCN2 protein using Mouse Anti-HCN2 Monoclonal Antibody, Clone S71 (ABIN2481391). Lane 1: MW Ladder. Lane 2: Mouse Brain (15 µg). Load: 15 µg. Block: 5 % Skim Milk powder in TBST. Primary Antibody: Mouse Anti-HCN2 Monoclonal Antibody (ABIN2481391) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-mouse IgG:HRP at 1:4000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT. Predicted/Observed Size: ~95 kDa.



Western Blotting

Image 2. Western Blot analysis of Rat brain membrane lysate showing detection of HCN2 protein using Mouse Anti-HCN2 Monoclonal Antibody, Clone S71-37 . Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-HCN2 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Mouse Anti-HCN2 Monoclonal Antibody, Clone S71-37 . Tissue: frozen brain section. Species: mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-HCN2 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 µl for 5 minutes at RT.

Please check the product details page for more images. Overall 6 images are available for ABIN2481391.