

## Basic Information

<b>Product Name</b>	Anti-HCN4 Antibody
<b>Gene Name</b>	HCN4
<b>Source</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, mouse, rat
<b>Tested Application</b>	WB, FCM, ELISA
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	E. coli-derived human HCN4 recombinant protein (Position: H909-L1203). Human HCN4 shares 92.9% and 93.2% amino acid (aa) sequence identity with mouse and rat HCN4, respectively.
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	140 kDa
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA):1:100-1000

## Storage

12 months from date of receipt, -20°C as supplied.

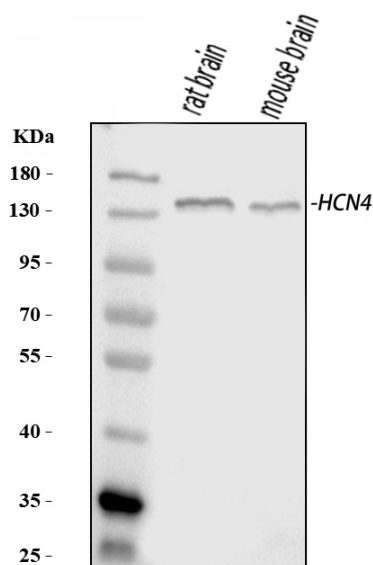
## Background Information

Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 4 is a protein that in humans is encoded by the HCN4 gene. This gene encodes a member of the hyperpolarization-activated cyclic nucleotide-gated potassium channels. The encoded protein shows slow kinetics of activation and inactivation, and is necessary for the cardiac pacemaking process. This channel may also mediate responses to sour stimuli. Mutations in this gene have been linked to sick sinus syndrome 2, also known as atrial fibrillation with bradyarrhythmia or familial sinus bradycardia. Two pseudogenes have been identified on chromosome 15.

## Reference

Anti-HCN4 Antibody被引用在4文献中。

## Selected Validation Data

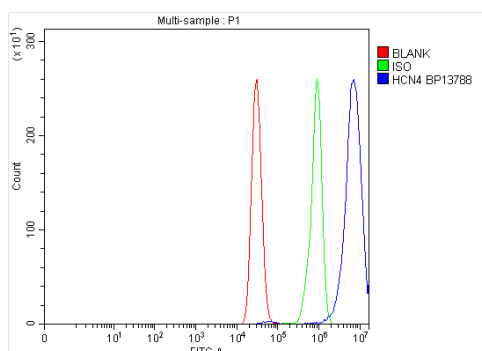


Western blot analysis of HCN4 using anti-HCN4 antibody (A02235-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-HCN4 antigen affinity purified polyclonal antibody (A02235-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HCN4 at approximately 140 kDa. The expected band size for HCN4 is at 129 kDa.



Flow Cytometry analysis of MCF-7 cells using anti-HCN4 antibody (A02235-1).

Overlay histogram showing MCF-7 cells stained with A02235-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HCN4 Antibody (A02235-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.