

## Product Datasheet

### Hcn2 Rabbit Polyclonal Antibody (orb1819380)

<b>Catalog Number</b>	orb1819380
<b>Category</b>	Antibodies
<b>Description</b>	Anti-Hcn2 Antibody. Tested in ELISA, IHC, WB, Flow Cytometry applications. This antibody reacts with Mouse, Rat.
<b>Target</b>	Potassium/sodium hyperpolarization-activated cyclic nucleotide-gated channel 2
<b>Clonality</b>	Polyclonal
<b>Species/Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Conjugation</b>	Unconjugated
<b>Reactivity</b>	Mouse, Rat
<b>Form/Appearance</b>	Lyophilized
<b>Concentration</b>	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
<b>Buffer/Preservatives</b>	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
<b>Reconstitution</b>	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
<b>Purification</b>	Immunogen affinity purified.
<b>Immunogen</b>	E.coli-derived mouse Hcn2 recombinant protein (Position: E660-L863). Mouse Hcn2 shares 87.4% and 97.5% amino acid (aa) sequence identity with human and rat HCN2, respectively.
<b>UniProt ID</b>	<b>O88703</b>

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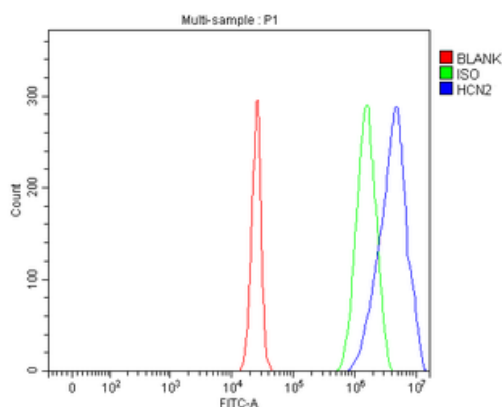
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<b>MW</b>	110 kDa
<b>Tested applications</b>	ELISA, FC, IHC, WB
<b>Dilution range</b>	Western blot, 0.25-0.5 µg/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/ml, Mouse, Rat Flow Cytometry (Fixed), 1-3 µg/1x10 <sup>6</sup> cells, Mouse ELISA, 0.1-0.5 µg/ml
<b>Cross Reactivity</b>	No cross reactivity with other proteins.
<b>Antibody Type</b>	Primary Antibody
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Note</b>	For research use only
<b>Expiration Date</b>	12 months from date of receipt.



Flow Cytometry analysis of Neuro-2a cells using anti-Hcn2 antibody. Overlay histogram showing Neuro-2a cells (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Hcn2 Antibody (1 µg/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (5-10 µg/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 µg/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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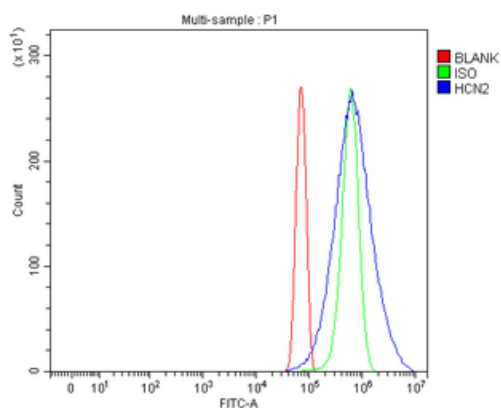
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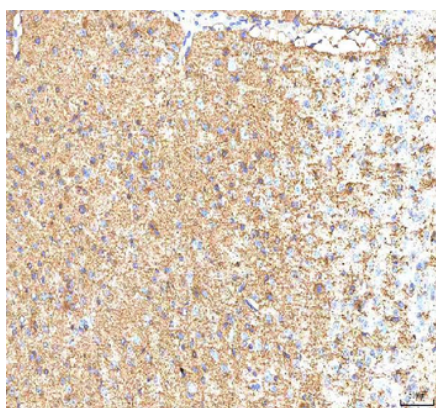
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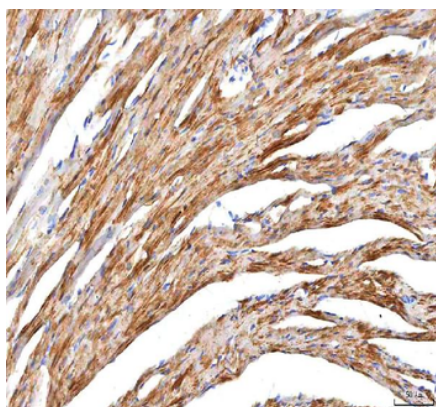
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Flow Cytometry analysis of NIH/3T3 cells using anti-Hcn2 antibody. Overlay histogram showing NIH/3T3 cells (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Hcn2 Antibody (1  $\mu\text{g}/1 \times 10^6$  cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (5-10  $\mu\text{g}/1 \times 10^6$  cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1  $\mu\text{g}/1 \times 10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC analysis of Hcn2 using anti-Hcn2 antibody. Hcn2 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu\text{g}/\text{ml}$  rabbit anti-Hcn2 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IHC analysis of Hcn2 using anti-Hcn2 antibody. Hcn2 was detected in a paraffin-embedded section of mouse cardiac tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu\text{g}/\text{ml}$  rabbit anti-Hcn2 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.

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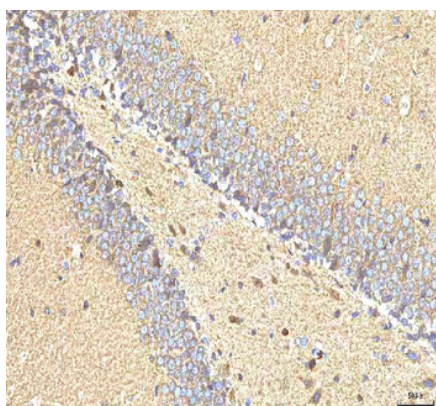
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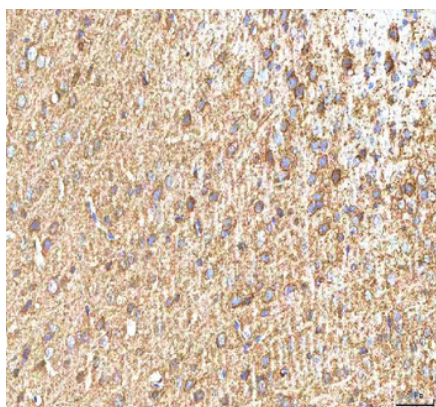
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IHC analysis of Hcn2 using anti-Hcn2 antibody. Hcn2 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml rabbit anti-Hcn2 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



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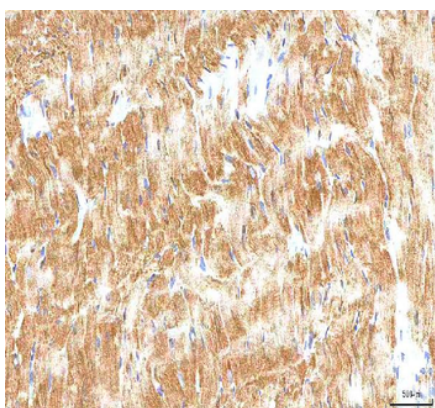
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IHC analysis of Hcn2 using anti-Hcn2 antibody. Hcn2 was detected in a paraffin-embedded section of rat cardiac tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml rabbit anti-Hcn2 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.

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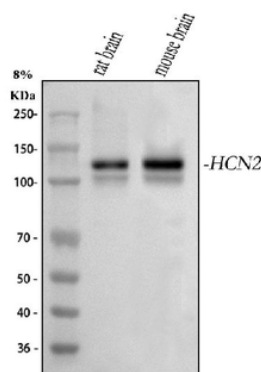
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Western blot analysis of Hcn2 using anti-Hcn2 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Hcn2 antigen affinity purified polyclonal antibody at 0.5  $\mu$ g/mL overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Hcn2 at approximately 110 kDa. The expected band size for Hcn2 is at 97-110 kDa.

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