

HCN1 (C-15): sc-19707

BACKGROUND

Hyperpolarization-activated, cyclic nucleotide-binding channels (HCN) are voltage-gated cation channels that are activated by direct binding of intracellular cyclic nucleotides. The HCN family consists of four members (HCN1–4), each with a core transmembrane segment domain and a carboxy-terminal 120 amino-acid cyclic nucleotide-binding domain motif. HCN channels are expressed in the brain, heart, thalamus and testis. The pacemaker properties of HCN channels contribute to spontaneous rhythmic activity in the brain and heart. The genes encoding human HCN1 and HCN2 map to chromosomes 5 and 19p13.3, respectively. The genes encoding HCN3 and HCN4 map to chromosomes 1q21.3 and 15q24-q25, respectively.

REFERENCES

1. Vaccari, T., Moroni, A., Rocchi, M., Gorza, L., Bianchi, M.E., Beltrame, M., and DiFrancesco, D. 1999. The human gene coding for HCN2, a pacemaker channel of the heart. *Biochim. Biophys. Acta.* 1446: 419-425.
2. Wainger, B.J., DeGennaro, M., Santoro, B., Siegelbaum, S.A., and Tibbs, G.R. 2001. Molecular mechanism of cAMP modulation of HCN pacemaker channels. *Nature* 411: 805-810.
3. LocusLink Report (LocusID: 609). <http://www.ncbi.nlm.nih.gov/LocusLink/>
4. LocusLink Report (LocusID: 57657). <http://www.ncbi.nlm.nih.gov/LocusLink/>
5. LocusLink Report (LocusID: 10021). <http://www.ncbi.nlm.nih.gov/LocusLink/>

SOURCE

HCN1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HCN1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19707 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

HCN1 (C-15) is recommended for detection of HCN1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

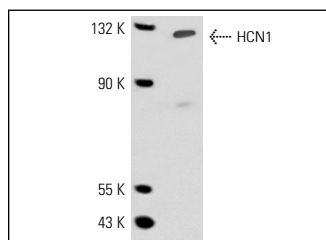
Molecular Weight: 110/130 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HCN1 (C-15): sc-19707. Western Blot analysis of HCN1 expression in mouse brain tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.