

CNG-1 β (N-20): sc-13705

BACKGROUND

Cyclic nucleotide-gated (CNG) cation channels are heteromeric complexes made up of principal α subunits, designated CNG-1 through CNG-4, and modulatory β subunits, designated CNG-1 β and CNG-3 β . CNG channels play essential roles in olfactory and visual transduction, regulation of arterial blood pressure and hormone secretion. CNG-1 β (cyclic nucleotide-gated cation channel β -1), also known as CNCG2, CNCG3L, GAR1, GARP or CNCG4, is a 909 amino acid multi-pass membrane protein that belongs to the CNG family and contains one cyclic nucleotide-binding domain. Existing in a heterooligomeric complex with CNG-1, CNG-1 β functions to generate a receptor current in response to a rise in cAMP levels within the cell. Multiple isoforms of CNG- β 1 exist due to alternative splicing events.

REFERENCES

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3. Biel, M. et al. 1999. Selective loss of cone function in mice lacking the cyclic nucleotide-gated channel CNG3. *Proc. Natl. Acad. Sci. USA* 96: 7553-7557.
4. Yao, X., et al. 1999. Rod-type cyclic nucleotide-gated cation channel is expressed in vascular endothelium and vascular smooth muscle cells. *Cardiovasc. Res.* 41: 282-290.
5. Gerstner, A., et al. 2000. Molecular cloning and functional characterization of a new modulatory cyclic nucleotide-gated channel subunit from mouse retina. *J. Neurosci.* 20: 1324-1332.
6. Vitalis, E.A., et al. 2000. Role of the cAMP signaling pathway in the regulation of gonadotropin-releasing hormone secretion in GT1 cells. *Proc. Natl. Acad. Sci. USA* 97: 1861-1866.
7. Pentia, D.C., et al. 2006. The glutamic acid-rich protein-2 (GARP2) is a high affinity rod photoreceptor phosphodiesterase (PDE6)-binding protein that modulates its catalytic properties. *J. Biol. Chem.* 281: 5500-5505.
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CHROMOSOMAL LOCATION

Genetic locus: CNGB1 (human) mapping to 16q21.

SOURCE

CNG-1 β (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CNG-1 β of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-13705 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CNG-1 β (N-20) is recommended for detection of CNG-1 β of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

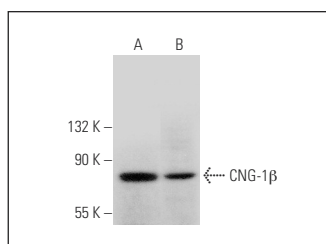
Suitable for use as control antibody for CNG-1 β siRNA (h): sc-42397, CNG-1 β shRNA Plasmid (h): sc-42397-SH and CNG-1 β shRNA (h) Lentiviral Particles: sc-42397-V.

Positive Controls: K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

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



CNG-1 β (N-20): sc-13705. Western blot analysis of CNG-1 β expression in Hep G2 (A) and K-562 (B) whole cell lysates.

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.