

KChIP2 (D-15): sc-11251

BACKGROUND

In the brain and heart, rapidly inactivating (A-type) voltage-gated potassium (Kv) currents control the excitability of neurons and cardiac myocytes. KChIPs are Kv channel-interacting proteins that bind to the cytoplasmic amino termini of Kv4 α -subunits and are integral components of native Kv4 channel complexes. KChIP family members include KChIP1 expressed in brain, KChIP2 expressed in heart, brain, and lung, and KChIP3 (previously identified as calsenilin) expressed in brain and testis. In rat brain, KChIP1 colocalizes with Kv4.3 in granule cells and KChIP2 colocalizes with Kv4.2 in both neocortical and subcortical structures. The KChIPs are members of the recoverin/neuronal calcium sensor-1 subfamily of calcium-binding proteins and show 99% nucleotide homology to DREAM, suggesting that KChIPs may have activity beyond modulation of Kv4 channels.

REFERENCES

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2. Hoffman, D.A., Magee, J.C., Colbert, C.M. and Johnston, D.K. 1997. K⁺ channel regulation of signal propagation in dendrites of hippocampal pyramidal neurons. *Nature* 387: 869-875.
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CHROMOSOMAL LOCATIONS

Genetic locus: KCNIP2 (human) mapping to 10q24.32; Kcni2 (mouse) mapping to 19 C3.

SOURCE

KChIP2 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of KChIP2 of human origin.

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-11251 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

KChIP2 (D-15) is recommended for detection of KChIP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

KChIP2 (D-15) is also recommended for detection of KChIP2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for KChIP2 siRNA (h): sc-42402, KChIP2 siRNA (m): sc-42403, KChIP2 shRNA Plasmid (h): sc-42402-SH, KChIP2 shRNA Plasmid (m): sc-42403-SH, KChIP2 shRNA (h) Lentiviral Particles: sc-42402-V and KChIP2 shRNA (m) Lentiviral Particles: sc-42403-V.

Molecular Weight of KChIP2: 27-36 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) 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.

SELECT PRODUCT CITATIONS

1. Szabó, G., Szentandrassy, N., Bíró, T., Tóth, B.I., Czifra, G., Magyar, J., Bányász, T., Varró, A., Kovács, L. and Nánási, P.P. 2005. Asymmetrical distribution of ion channels in canine and human left-ventricular wall: epicardium versus midmyocardium. *Pflugers Arch.* 450: 307-316.
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STORAGE

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


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Satisfaction
Guaranteed

Try **KChIP2 (9K9): sc-134371**, our highly recommended monoclonal alternative to KChIP2 (D-15).