

KChIP2 (H-100): sc-25685

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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3. 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.
4. Buxbaum, J.D., Choi, E.K., Luo, Y., Lilliehook, C., Crowley, A.C., Merriam, D.E. and Wasco, W. 1998. Calsenilin: a calcium-binding protein that interacts with the presenilins and regulates the levels of a presenilin fragment. *Nat. Med.* 4: 1177-1181.
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CHROMOSOMAL LOCATION

Genetic locus: KCNIP2 (human) mapping to 10q24.32; Kcnp2 (mouse) mapping to 19 C3.

SOURCE

KChIP2 (H-100) is a rabbit polyclonal antibody raised against amino acids 1-55 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.

STORAGE

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

APPLICATIONS

KChIP2 (H-100) 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), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

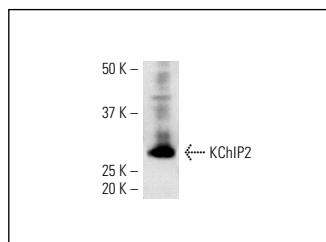
KChIP2 (H-100) is also recommended for detection of KChIP2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for KChIP2 siRNA (h): sc-42402 and 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.

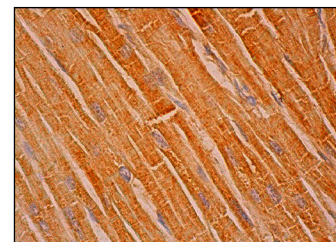
Molecular Weight of KChIP2: 27-36 kDa.

Positive Controls: mouse brain extract: sc-2253.

DATA



KChIP2 (H-100): sc-25685. Western blot analysis of KChIP2 expression in mouse heart tissue extract.



KChIP2 (H-100): sc-25685. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

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.

MONOS
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Try **KChIP2 (9K9): sc-134371**, our highly recommended monoclonal alternative to KChIP2 (H-100).