



KV3.2 (S-14): sc-54395

BACKGROUND

Voltage-gated K⁺ channels in the plasma membrane control the repolarization and the frequency of action potentials in neurons, muscles and other excitable cells. The KV gene family encodes more than 30 proteins that comprise the subunits of the K⁺ channels. The subunits vary in their gating and permeation properties, subcellular distribution and expression patterns. Functional KV channels assemble as tetramers consisting of pore-forming α -subunits, which include the KV1, KV2, KV3, KV4 and KV9 proteins, as well as accessory subunits that modify the gating properties of the coexpressed KV subunits. KV3.2 is a multipass membrane protein that regulates the voltage-dependent K⁺ permeability of excitable membranes. Its tail may be influential in the targeting of the channel to specific subcellular compartments and/or the regulation of channel activity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KCNC2 (human) mapping to 12q21.1; Kcnc2 (mouse) mapping to 10 D2.

SOURCE

KV3.2 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KV3.2 of rat 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-54395 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KV3.2 (S-14) is recommended for detection of KV3.2 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).

KV3.2 (S-14) is also recommended for detection of KV3.2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for KV3.2 siRNA (h): sc-62534, KV3.2 siRNA (m): sc-62535, KV3.2 shRNA Plasmid (h): sc-62534-SH, KV3.2 shRNA Plasmid (m): sc-62535-SH, KV3.2 shRNA (h) Lentiviral Particles: sc-62534-V and KV3.2 shRNA (m) Lentiviral Particles: sc-62535-V.

Molecular Weight of KV3.2: 70 kDa.

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.

STORAGE

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

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.