



THIK-2 (G-15): sc-50999

BACKGROUND

Potassium channels play an important role in cell excitability and plasticity. The pore loop domain, a highly conserved region common to all potassium channels, is involved in determining potassium ion selectivity. The family of potassium channels possessing two-pore loop domains consists of both inward and outwardly rectifying channels and includes THIK-1, THIK-2, TRESK, TALK-1 and TALK-2. Members of this family are all characterized by four transmembrane domains and may function to help influence the resting membrane potential of cells. THIK-1 and THIK-2, which form a separate sub-family among tandem pore domain K⁺ channels, do not form heteromers, and are expressed in restricted neuronal populations. THIK-2 is a halothane inhibited potassium channel of 430 amino acids. The gene which encodes the THIK-2 protein possesses one intron and is assigned to chromosomal region 2p21. THIK-2 is expressed mainly in the brain and lung, but its expression is also observed in the kidneys, heart and skeletal muscle. THIK-2 is not expressed as a functional protein, and it may require other proteins to become active.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KCNK12 (human) mapping to 2p21; Kcnk12 (mouse) mapping to 17 E4.

SOURCE

THIK-2 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of THIK-2 of human 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-50999 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

THIK-2 (G-15) is recommended for detection of THIK-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).

THIK-2 (G-15) is also recommended for detection of THIK-2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for THIK-2 siRNA (h): sc-61682, THIK-2 siRNA (m): sc-61683, THIK-2 shRNA Plasmid (h): sc-61682-SH, THIK-2 shRNA Plasmid (m): sc-61683-SH, THIK-2 shRNA (h) Lentiviral Particles: sc-61682-V and THIK-2 shRNA (m) Lentiviral Particles: sc-61683-V.

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.