

KCNRG (M-179): sc-292578

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 genes that comprise the subunits of the K⁺ channels and they vary in their gating and permeation properties, subcellular distribution and expression patterns. The potassium channel regulator KCNRG inhibits potassium fluxes in cells, specifically through Kv1.1 and Kv1.4 channels. KCNRG maps to human chromosome 13q14.2, a region frequently prone to deletions. Subsequently, loss of the tumor suppressor actions of KCNRG has been shown to lead to gastrointestinal stromal tumors, hepatocellular carcinomas, as well as other soft tissue tumors. In addition, production of autoantibodies to KCNRG contribute to the pulmonary symptoms of patients with autoimmune polyendocrine syndrome type 1 (APS-1).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KCNRG (human) mapping to 13q14.2; Kcnrg (mouse) mapping to 14 D1.

SOURCE

KCNRG (M-179) is a rabbit polyclonal antibody raised against amino acids 11-189 mapping near the N-terminus of KCNRG of mouse origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

KCNRG (M-179) is recommended for detection of KCNRG of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 KCNRG siRNA (h): sc-75372, KCNRG siRNA (m): sc-146372, KCNRG shRNA Plasmid (h): sc-75372-SH, KCNRG shRNA Plasmid (m): sc-146372-SH, KCNRG shRNA (h) Lentiviral Particles: sc-75372-V and KCNRG shRNA (m) Lentiviral Particles: sc-146372-V.

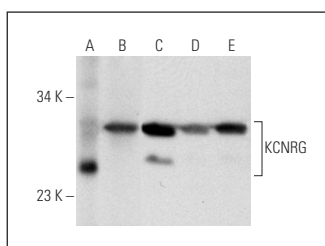
Molecular Weight of KCNRG isoforms: 31/26 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or mouse lung extract: sc-2390.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



KCNRG (M-179): sc-292578. Western blot analysis of KCNRG expression in human heart (A) and mouse lung (B) tissue extracts and c4 (C), NIH/3T3 (D) and 3T3-L1 (E) whole cell lysates.

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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Try **KCNRG (A-9): sc-390290**, our highly recommended monoclonal alternative to KCNRG (M-179).