



KV1.7 (U-22): sc-102003

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 which vary in their gating and permeation properties, subcellular distribution and expression patterns. Functional KV channels assemble as tetramers consisting of pore-forming α -subunits (KV α), which include the KV1, KV2, KV3 and KV4 proteins, and accessory or KV β subunits that modify the gating properties of the coexpressed KV α subunits. KV1.7 is a 456 amino acid voltage-gated K⁺ channel protein highly expressed in heart, skeletal muscle and kidney. The tail of KV1.7 is thought to modulate channel activity while the N-terminus may be important for the activation rate of the channel.

REFERENCES

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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.

CHROMOSOMAL LOCATION

Genetic locus: KCNA7 (human) mapping to 19q13.33.

SOURCE

KV1.7 (U-22) is a purified rabbit polyclonal antibody raised against KV1.7 of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

KV1.7 (U-22) is recommended for detection of KV1.7 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KV1.7 siRNA (h): sc-97461, KV1.7 shRNA Plasmid (h): sc-97461-SH and KV1.7 shRNA (h) Lentiviral Particles: sc-97461-V.

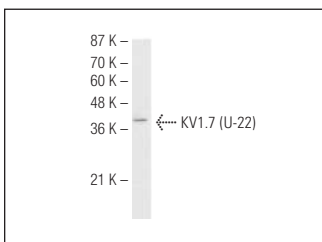
Molecular Weight of KV1.7: 50 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

DATA



KV1.7 (U-22): sc-102003. Western blot analysis of KV1.7 (U-22) expression in Jurkat whole cell lysate.

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.