

KV β .1 (m): 293T Lysate: sc-121258

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, and they 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), which include the KV1, KV2, KV3 and KV4 proteins, and accessory or KV-subunits that modify the gating properties of the coexpressed KV subunits. KV β .1 is an accessory K⁺ channel protein which regulates the activity of the pore-forming α subunit. It is expressed in the brain, with highest levels detected in the caudate nucleus, hippocampus and thalamus. KV β .1 is also expressed in the amygdala, subthalamic nucleus and in both healthy and cardiomyopathic heart, where it is up to four times more abundant in the left ventricle than in the left atrium.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Kcnab1 (mouse) mapping to 3 E1.

PRODUCT

KV β .1 (m): 293T Lysate represents a lysate of mouse KV β .1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

KV β .1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive KV β .1 antibodies. Recommended use: 10-20 μ l per lane.

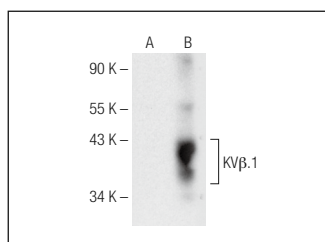
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

KV β .1 (H-5): sc-373986 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse KV β .1 expression in KV β .1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



KV β .1 (H-5): sc-373986. Western blot analysis of KV β .1 expression in non-transfected: sc-117752 (A) and mouse KV β .1 transfected: sc-121258 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.