

SGK (H-40): sc-33774

BACKGROUND

Serum- and glucocorticoid-regulated kinase (SGK) is a serine/threonine protein kinase and a member of the "AGC" subfamily, which includes protein kinases A, G and C. SGK plays an important role in activating certain potassium, sodium and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability and renal sodium excretion. SGK contains a catalytic domain, which is most similar to Akt1 (also known as protein kinase B or PKB). SGK is a downstream target of PI 3-kinase-stimulated growth factor signaling, with 3-phosphoinositide-dependent protein kinase 1 (PDK1) capable of phosphorylating the activation-loop of SGK at Threonine 256. The adrenal corticosteroid hormone, Aldosterone, induces the transcription of SGK, which mediates Na⁺ transport by stimulating epithelial sodium channel activity. The SGK promoter contains a glucocorticoid response element and an SP-1 regulatory element, and is a transcriptional target for p53. SGK is also a component of the p38 MAPK-mediated response to hyperosmotic stress. The human SGK gene maps to chromosome 6q23.2 and encodes the 431 amino acid SGK protein.

CHROMOSOMAL LOCATION

Genetic locus: SGK1 (human) mapping to 6q23.2; Sgk1 (mouse) mapping to 10 A3.

SOURCE

SGK (H-40) is a rabbit polyclonal antibody raised against amino acids 381-420 mapping near the C-terminus of SGK 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.

APPLICATIONS

SGK (H-40) is recommended for detection of SGK of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SGK (H-40) is also recommended for detection of SGK in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SGK siRNA (h): sc-38913, SGK siRNA (m): sc-38914, SGK shRNA Plasmid (h): sc-38913-SH, SGK shRNA Plasmid (m): sc-38914-SH, SGK shRNA (h) Lentiviral Particles: sc-38913-V and SGK shRNA (m) Lentiviral Particles: sc-38914-V.

Molecular Weight (predicted) of SGK isoforms: 48/50/52/60 kDa.

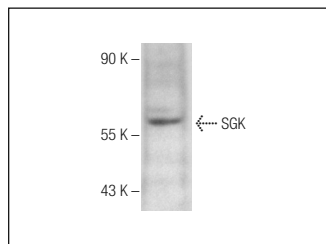
Molecular Weight (observed) of SGK isoforms: 42/49/60 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

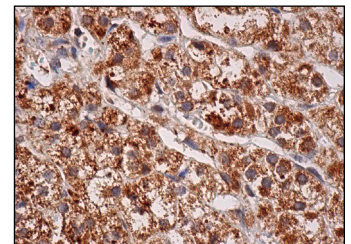
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



SGK (H-40): sc-33774. Western blot analysis of SGK expression in Jurkat whole cell lysate.



SGK (H-40): sc-33774. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

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.


 MONOS
Satisfaction
Guaranteed

Try **SGK (G-4): sc-377360** or **SGK (H-4): sc-28338**, our highly recommended monoclonal alternatives to SGK (H-40). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SGK (G-4): sc-377360**.