

SGK2 (3Q-2): sc-100355



The Power to Question

BACKGROUND

The serum- and glucocorticoid-regulated kinases (SGKs) include SGK1, SGK2 and SGK3 and are members of the serine/threonine protein kinase family. SGKs play 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. The SGKs display structural and sequence similarity to the PKB/Akt family except for the absence of a Pleckstrin homology (PH) domain. The SGKs are also downstream targets of PI 3-kinase-stimulated growth factor signaling. They can all phosphorylate NEDD4-1, which subsequently activates various channels and transporters including ENaC, KV1.3 or EAAT1. Aldosterone induces the expression of SGK1, but not SGK2 or SGK3. SGK3 is ubiquitously expressed, but SGK2 only shows significant levels of expression in liver, kidney and pancreas.

REFERENCES

1. Park, J., et al. 1999. Serum- and glucocorticoid-inducible kinase (SGK) is a target of the PI 3-kinase-stimulated signaling pathway. *EMBO J.* 18: 3024-3033.
2. Kobayashi, T., et al. 2000. Characterization of the structure and regulation of two novel isoforms of serum- and glucocorticoid-induced protein kinase. *Biochem. J.* 344: 189-197.

CHROMOSOMAL LOCATION

Genetic locus: SGK2 (human) mapping to 20q13.12; Sgk2 (mouse) mapping to 2 H2.

SOURCE

SGK2 (3Q-2) is a mouse monoclonal antibody raised against recombinant SGK2 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SGK2 (3Q-2) is recommended for detection of SGK2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SGK2 siRNA (h): sc-61536, SGK2 siRNA (m): sc-61537, SGK2 siRNA (r): sc-156059, SGK2 shRNA Plasmid (h): sc-61536-SH, SGK2 shRNA Plasmid (m): sc-61537-SH, SGK2 shRNA Plasmid (r): sc-156059-SH, SGK2 shRNA (h) Lentiviral Particles: sc-61536-V, SGK2 shRNA (m) Lentiviral Particles: sc-61537-V and SGK2 shRNA (r) Lentiviral Particles: sc-156059-V.

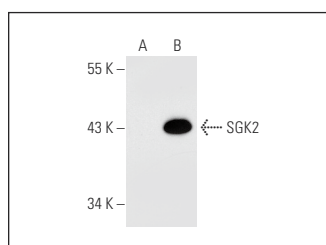
Molecular Weight of SGK2: 41 kDa.

Positive Controls: SGK2 (m): 293T Lysate: sc-127532, SGK2 (h): 293T Lysate: sc-116881 or PC-12 cell lysate: sc-2250.

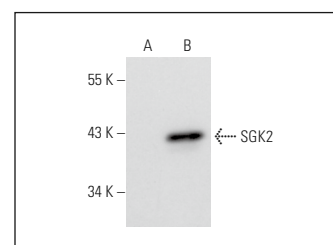
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SGK2 (3Q-2): sc-100355. Western blot analysis of SGK2 expression in non-transfected: sc-117752 (A) and human SGK2 transfected: sc-116881 (B) 293T whole cell lysates.



SGK2 (3Q-2): sc-100355. Western blot analysis of SGK2 expression in non-transfected: sc-117752 (A) and mouse SGK2 transfected: sc-127532 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhou, N., et al. 2015. Lethality of PAK3 and SGK2 shRNAs to human papillomavirus positive cervical cancer cells is independent of PAK3 and SGK2 knockdown. *PLoS ONE* 10: e0117357.
2. Zhou, X., et al. 2017. Progression of experimental autoimmune encephalomyelitis is associated with up-regulation of major sodium transporters in the mouse kidney cortex under a normal salt diet. *Cell. Immunol.* 317: 18-25.
3. Bruchhage, K.L., et al. 2018. 1,8-cineol inhibits the Wnt/β-catenin signaling pathway through GSK-3 dephosphorylation in nasal polyps of chronic rhinosinusitis patients. *Eur. J. Pharmacol.* 835: 140-146.
4. Chen, J.B., et al. 2018. Glucocorticoid-inducible kinase 2 promotes bladder cancer cell proliferation, migration and invasion by enhancing β-catenin/c-Myc signaling pathway. *J. Cancer* 9: 4774-4782.

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 for detailed protocols and support products.