

Phospho-SGK (Ser78) Antibody

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W Transfected	Species Cross-Reactivity* H, (M, R)	Molecular Wt. 54 kDa	Source Rabbit**
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Background: Serum and glucocorticoid-inducible kinase (SGK), a serine/threonine kinase, is a close relative of Akt (1). SGK is rapidly induced in response to a variety of stimuli, including serum, glucocorticoid, follicle stimulating hormone, osmotic shock and mineralocorticoids. SGK activation can be accomplished via HGF PI3K-dependent pathways and by integrin-mediated PI3K-independent pathways (2,3). Induction and activation of SGK has been implicated in activating the modulation of antiapoptotic and cell cycle regulation (4–6). SGK also plays an important role in activating certain potassium, sodium and chloride channels, suggesting its involvement in the regulation of processes such as cell survival, neuronal excitability and renal sodium excretion (2). SGK is negatively regulated by ubiquitin modification and proteasome degradation (7).

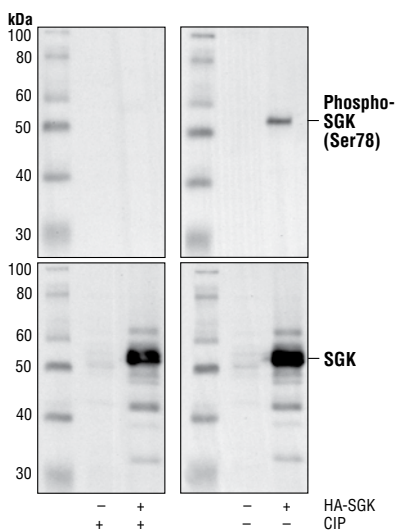
The MAP kinase family member BMK1 interacts with and activates SGK by phosphorylation at serine 78 (6).

Specificity/Sensitivity: Phospho-SGK (Ser78) Antibody detects transfected levels of SGK only when phosphorylated at serine 78. It will not detect isoforms SGK2 or SGK3.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser78 of human SGK. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Webster, M.K. et al. (1993) *Mol. Cell. Biol.* 13, 2031–2040.
- (2) Kobayashi, T. and Cohen, P. (1999) *Biochem. J.* 339, 319–328.
- (3) Park, J. et al. (1999) *EMBO J.* 18, 3024–3033.
- (4) Brunet, A. et al. (2001) *Mol. Cell. Biol.* 21, 952–965.
- (5) Mikosz, C.A. et al. (2001) *J. Biol. Chem.* 276, 16649–16654.
- (6) Hayashi, M. et al. (2001) *J. Biol. Chem.* 276, 8631–8634.
- (7) Brickley, D.R. et al. (2002) *J. Biol. Chem.* 277, 43064–43070.



Western blot analysis of extracts from HeLa cells untransfected (left lane) and transfected by HA-SGK (right lane), using Phospho-SGK (Ser78) Antibody (upper) or control SGK Antibody #3272 (lower). The phospho-specificity of the antibody was characterized by treating the membrane with or without calf intestinal alkaline phosphatase (CIP) after Western transfer.

Entrez-Gene ID # 6446
Swiss-Prot Acc. # O00141

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.