Revision 1

Store at -20C

#3271

Phospho-SGK (Ser78) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	54 (Transfected only)	Rabbit	#O00141	6446

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity/Sensitivity

Phospho-SGK (Ser78) Antibody detects transfected levels of SGK1 only when phosphorylated at serine 78. It will not detect isoforms SGK2 or SGK3.

Species predicted to react based on 100% sequence homology

Mouse, Rat

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

Serum and glucocorticoid-inducible kinase (SGK) is a serine/threonine kinase closely related to 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 anti-apoptotic 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 ubiquitination and proteasome degradation (7).
The MAP kinase family member BMK1 interacts with and activates SGK by phosphorylation at serine 78 (6).

Background References

1. Webster, M.K. et al. (1993) *Mol Cell Biol* 13, 2031-40.
2. Kobayashi, T. and Cohen, P. (1999) *Biochem J* 339 (Pt 2), 319-28.
3. Park, J. et al. (1999) *EMBO J* 18, 3024-33.
4. Brunet, A. et al. (2001) *Mol Cell Biol* 21, 952-65.
5. Mikosz, C.A. et al. (2001) *J Biol Chem* 276, 16649-54.
6. Hayashi, M. et al. (2001) *J Biol Chem* 276, 8631-4.
7. Brickley, D.R. et al. (2002) *J Biol Chem* 277, 43064-70.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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