

Product Name: SGK1 Rabbit Polyclonal Antibody
Catalog #: AP Rab17818



Summary

Production Name	SGK1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC, WB, IF, ELISA
Reactivity	Human, Mouse, Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SGK1
Alternative Names	SGK1; SGK; Serine/threonine-protein kinase Sgk1; Serum/glucocorticoid-regulated kinase 1
Gene ID	6446.0
SwissProt ID	O00141. The antiserum was produced against synthesized peptide derived from human SGK. AA range: 381-430

Application

Dilution Ratio	IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000. Not yet tested in other applications.
Molecular Weight	57kD

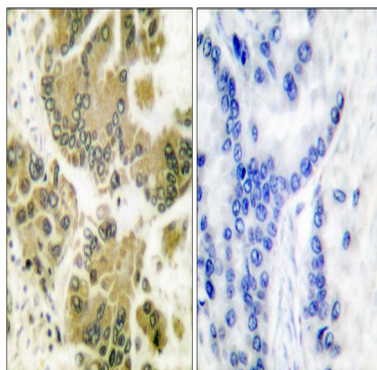
Background

This gene encodes a serine/threonine protein kinase that plays an important role in cellular stress response. This kinase activates certain potassium, sodium, and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability, and renal sodium excretion. High levels of expression of this gene may contribute to conditions such as hypertension and diabetic nephropathy. Several alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jan 2009],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Two specific sites, one in the kinase domain (Thr-256) and the other in the C-terminal regulatory region (Ser-422), need to be phosphorylated for its full activation.,function:Protein kinase that plays an important role in cellular stress response. Activates certain potassium, sodium, and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability, and renal sodium excretion. Sustained high levels and activity may contribute to conditions such as hypertension and diabetic nephropathy. Mediates cell survival signals, phosphorylates and negatively regulates pro-apoptotic FOXO3A. Phosphorylates NEDD4L, which leads to its inactivation and to the subsequent activation of various channels and transporters such as ENaC, Kv1.3, or EAAT1.,induction:By serum and/or glucocorticoids. By excessive extracellular glucose and by TGF-beta, in cultured cells.,PTM:Regulated by phosphorylation. Phosphoinositide 3-kinase (PI3-kinase) pathway promotes phosphorylation at Ser-422 which in turn increases the phosphorylation of Thr-256 by PDPK1.,PTM:Ubiquitinated by NEDD4L; which promotes proteasomal degradation. Ubiquitinated by SYVN1 at the endoplasmic reticulum; which promotes rapid proteasomal degradation and maintains a high turnover rate in resting cells.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Nuclear, upon phosphorylation.,subunit:Interacts with NEDD4 and NEDD4L.,tissue specificity:Expressed in most tissues with highest levels in the pancreas, followed by placenta, kidney and lung.,

Research Area

Aldosterone-regulated sodium reabsorption;

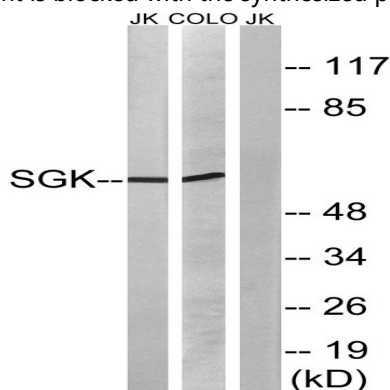
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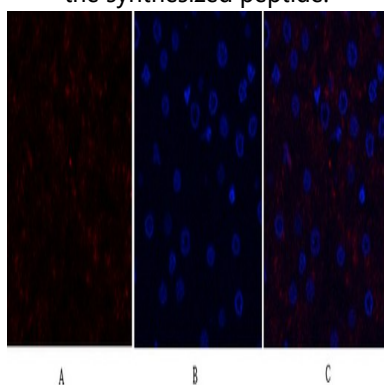
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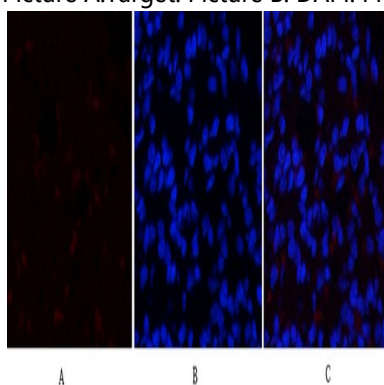
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using SGK Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat and COLO205 cells, using SGK Antibody. The lane on the right is blocked with the synthesized peptide.

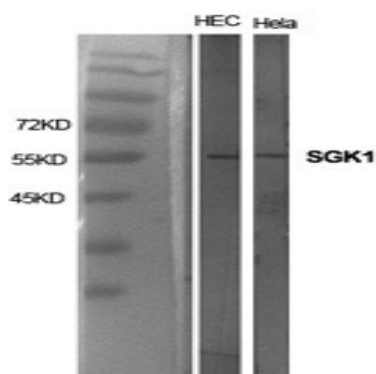


Immunofluorescence analysis of human-liver tissue. 1,SGK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of rat-lung tissue. 1,SGK1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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Western Blot analysis of various cells using SGK1 Polyclonal Antibody diluted at 1: 1000

Note

For research use only.