Product Name: SGK1(4D12)Mouse Monoclonal Antibody
Catalog #: AMM17819

Summary

Production Name	SGK1(4D12)Mouse Monoclonal Antibody
Description	Mouse Monoclonal Antibody
Host	Mouse
Application	IHC-P,IF-P,IF-F,ICC/IF
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
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
Gene ID	6446.0
SwissProt ID	O00141.Synthetic Peptide of SGK1 at AA range of 350-430

Application

Dilution Ratio	IHC-P 1:100-200, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	45-60kDa

Background

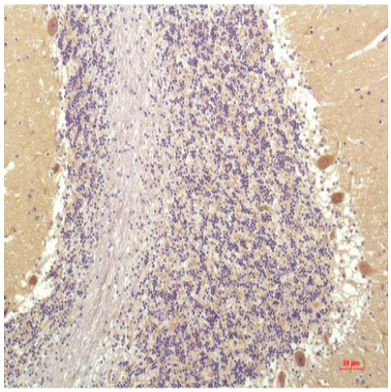
This gene encodes a serine/threonine protein kinase that plays an important role in cellular stress response. This kinase

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

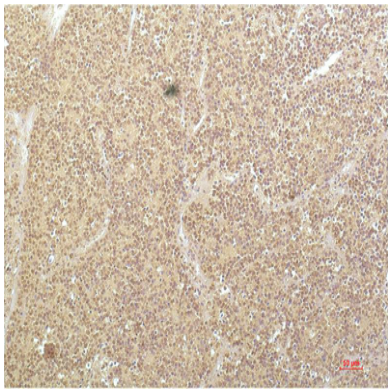
Aldosterone-regulated sodium reabsorption;

Image Data



Immunohistochemical analysis of paraffin-embedded Human Brain Tissue using SGK1 Mouse mAb diluted at 1:200.

Product Name: SGK1(4D12)Mouse Monoclonal Antibody
Catalog #: AMM17819



Immunohistochemical analysis of paraffin-embedded Human Kidney Carcinoma Tissue using SGK1 Mouse mAb diluted at 1:200.

Note

For research use only.