

Product name:	SGK1(4D12)Mouse Monoclonal Antibody
Cat number:	MABN17819
Conjugate:	Unconjugated
Size:	100μL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Mouse
Isotype:	IgG
Immunogen:	Synthetic Peptide of SGK1 at AA range of 350-430
Reactivity:	Human,Rat,Mouse
Applications:	IHC 1:100-1:200,ICC/IF 1:50-1:200
Molecular Weight:	45-60kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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.,