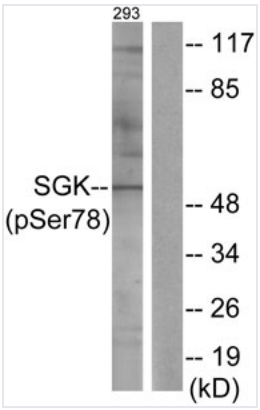
SGK Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SGK, Polyclonal Antibody
Full Product Name	SGK (Phospho-Ser78) Antibody
Product Gene Name	anti-SGK antibody
Product Synonym Gene Name	SGK1
Product Synonym Names	SGK, SGK1, Serum/glucocorticoid-regulated kinase, Serum/glucocorticoid-regulated kinase 1, Sgk, Sgk1, kinase SGK
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Purified from rabbit antiserum by affinity-chromatography using phospho peptide. The antibody against non-phospho peptide was removed by chromatography using corresponding non-phospho peptide.
Concentration	1 mg/ml (lot specific)
Specificity	SGK (Phospho-Ser78) Antibody detects endogenous levels of SGK only when phosphorylated at Ser78.
Preparation and Storage	Stable at -20°C for at least 1 year.
Molecular Weight	48 kDa
OMIM	Y10032 mRNA
3D Structure	ModBase 3D Structure for O00141
Target Modification	Phospho
Modification Sites	H:S78; M:S78; R:S78
Immunogen	The antiserum was produced against synthesized peptide derived from human SGK around the phosphorylation site of Ser78.
Immunogen Range	41-90
Applications Tested/Suitable for anti-SGK antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-SGK antibody	WB: 1:500~1:1000 ELISA: 1:10000
Related Product Information for anti-SGK antibody	MBS9502629 is an antibody targeting SGK. Also known as SGK (Phospho-Ser78) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-SGK antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-SGK antibody
Western blot analysis of lysates from 293 cells treated with UV 15', using SGK (Phospho-Ser78) Antibody. The lane on the right is blocked with the phospho peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SGK. It may not necessarily be applicable to this product.

NCBI GI #	219521876
NCBI GeneID	6446
NCBI Accession #	NP_001137148.1
UniProt Primary Accession #	O00141
UniProt Secondary Accession #	Q5TCN2; Q5TCN3; Q5TCN4; Q5VY65; Q9UN56; B7UUP7; B7UUP8; B7UUP9; B7Z5B2; E1P583
UniProt Related Accession #	O00141
GenBank Nucleotide #	NM_001143676.1
NCBI Official Full Name	serine/threonine-protein kinase Sgk1 isoform 2
NCBI Official Synonym Full Names	serum/glucocorticoid regulated kinase 1
NCBI Official Symbol	SGK1
NCBI Official Synonym Symbols	SGK
UniProt Protein Name	Serine/threonine-protein kinase Sgk1
UniProt Synonym Protein Names	Serum/glucocorticoid-regulated kinase 1
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	SGK1
UniProt Synonym Gene Names	SGK
NCBI Protein Information	serine/threonine-protein kinase Sgk1
NCBI Summary for SGK	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]

UniProt Comments for SGK	Serine/threonine-protein kinase which is involved in the regulation of a wide variety of ion channels, membrane transporters, cellular enzymes, transcription factors, neuronal excitability, cell growth, proliferation, survival, migration and apoptosis. Plays an important role in cellular stress response. Contributes to regulation of renal Na+ retention, renal K+ elimination, salt appetite, gastric acid secretion, intestinal Na+/H+ exchange and nutrient transport, insulin-dependent salt sensitivity of blood pressure, salt sensitivity of peripheral glucose uptake, cardiac repolarization and memory consolidation. Up-regulates Na+ channels: SCNN1A/ENAC, SCN5A and ASIC1/ACCN2, K+ channels: KCNJ1/ROMK1, KCNA1-5, KCNQ1-5 and KCNE1, epithelial Ca2+ channels: TRPV5 and TRPV6, chloride channels: BSND, CLCN2 and CFTR, glutamate transporters: SLC1A3/EAAT1, SLC1A2 /EAAT2, SLC1A1/EAAT3, SLC1A6/EAAT4 and SLC1A7/EAAT5, amino acid transporters: SLC1A5/ASCT2, SLC38A1/SN1 and SLC6A19, creatine transporter: SLC6A8, Na+/dicarboxylate cotransporter: SLC13A2/NADC1, Na+-dependent phosphate cotransporter: SLC34A2/NAPI-2B, glutamate receptor: GRIK2/GLUR6. Up-regulates carriers: SLC9A3/NHE3, SLC12A1/NKCC2, SLC12A3/NCC, SLC5A3/SMIT, SLC2A1/GLUT1, SLC5A1/SGLT1 and SLC15A2/PEPT2. Regulates enzymes: GSK3A/B, PMM2 and Na+/K+ ATPase, and transcription factors: CTNNB1 and nuclear factor NF-kappa-B. Stimulates sodium transport into epithelial cells by enhancing the stability and expression of SCNN1A/ENAC. This is achieved by phosphorylating the NEDD4L ubiquitin E3 ligase, promoting its interaction with 14-3-3 proteins, thereby preventing it from binding to SCNN1A/ENAC and targeting it for degradation. Regulates store-operated Ca(+2) entry (SOCE) by stimulating ORAI1 and STIM1. Regulates KCNJ1/ROMK1 directly via its phosphorylation or indirectly via increased interaction with SLC9A3R2/NHERF2. Phosphorylates MDM2 and activates MDM2-dependent ubiquitination of p53/TP53. Phosphorylates MAPT/TAU and mediates microtubule depolymerization and neurite formation in hippocampal neurons. Phosphorylates SLC2A4/GLUT4 and up-regulates its activity. Phosphorylates APBB1/FE65 and promotes its localization to the nucleus. Phosphorylates MAPK1/ERK2 and activates it by enhancing its interaction with MAP2K1/MEK1 and MAP2K2/MEK2. Phosphorylates FBXW7 and plays an inhibitory role in the NOTCH1 signaling. Phosphorylates FOXO1 resulting in its relocalization from the nucleus to the cytoplasm. Phosphorylates FOXO3, promoting its exit from the nucleus and interference with FOXO3-dependent transcription. Phosphorylates BRAF and MAP3K3/MEKK3 and inhibits their activity. Phosphorylates SLC9A3/NHE3 in response to dexamethasone, resulting in its activation and increased localization at the cell membrane. Phosphorylates CREB1. Necessary for vascular remodeling during angiogenesis. Sustained high levels and activity may contribute to conditions such as hypertension and diabetic nephropathy. Isoform 2 exhibited a greater effect on cell plasma membrane expression of SCNN1A/ENAC and Na+ transport than isoform 1.
Research Articles on SGK	**1.** High SGK1 expression is associated with gastric cancer.
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