



## Rabbit Anti-SGK1 antibody

SL4904R

<b>Product Name:</b>	SGK1
<b>Chinese Name:</b>	糖皮质激素调节激酶1抗体
<b>Alias:</b>	Serum/glucocorticoid regulated kinase 1; SGK 1; SGK-1; Serine/threonine protein kinase SGK; Serine/threonine protein kinase Sgk1; Serum and glucocorticoid regulated kinase; Serum/glucocorticoid regulated kinase; SGK 1; SGK; SGK1_HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Cow,Horse,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=2ug/Test (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	49kDa
<b>Cellular localization:</b>	The nucleuscytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human SGK1:301-400/431
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	SGK1 is a protein kinase that plays an important role in cellular stress response. SGK1 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 of SGK1 and activity may contribute to conditions such as hypertension and diabetic nephropathy. This protein also mediates

cell survival signals, as it has been shown to phosphorylate and negatively regulate the pro apoptotic FOXO3A protein. Ser 422 is a critical site on the protein and may be involved in its 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, KCNA3/Kv1.3 or EAAT1. Isoform 2 exhibited a greater effect on cell plasma membrane expression of ENaC and Na(+) transport than isoform 1.

**Subunit:**

Homodimer; disulfide-linked. Forms a trimeric complex with FBXW7 and NOTCH1. Interacts with MAPK3/ERK1, MAPK1/ERK2, MAP2K1/MEK1, MAP2K2/MEK2, NEDD4, NEDD4L, MAPT/TAU, MAPK7, CREB1, SLC9A3R2/NHERF2 and KCNJ1/ROMK1. Associates with the mammalian target of rapamycin complex 2 (mTORC2) via an interaction with MAPKAP1/SIN1.

**Subcellular Location:**

Cell membrane and Cytoplasm. Nucleus. Endoplasmic reticulum. Nuclear, upon phosphorylation.

**Tissue Specificity:**

Expressed in most tissues with highest levels in the pancreas, followed by placenta, kidney and lung. Isoform 2 is strongly expressed in brain and pancreas, weaker in heart, placenta, lung, liver and skeletal muscle.

**Post-translational modifications:**

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.

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. Isoform 2 shows enhanced stability. Isoform 2 resistance to proteasomal degradation is mediated by the sequences within the first 120-amino acid.

**Similarity:**

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain.

**SWISS:**  
O00141

**Gene ID:**  
6446

**Database links:**

[Entrez Gene: 6446](#)Human

[Entrez Gene: 20393](#)Mouse

[Entrez Gene: 29517](#)Rat

[Omim: 602958](#)Human

[SwissProt: O00141](#)Human

[SwissProt: Q9WVC6](#)Mouse

[SwissProt: Q06226](#)Rat

[Unigene: 510078](#)Human

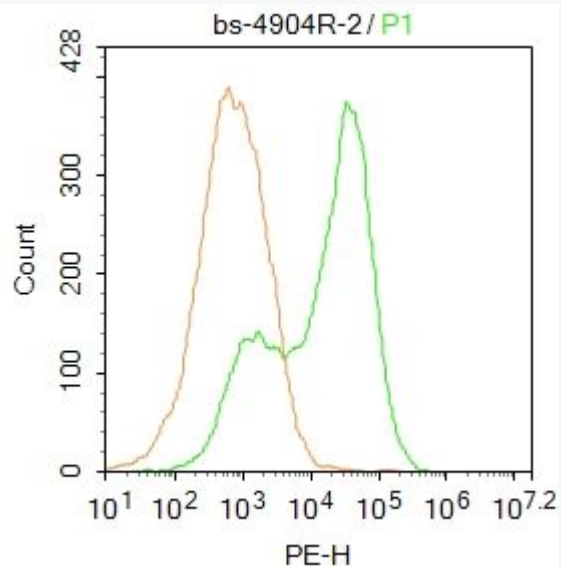
[Unigene: 28405](#)Mouse

[Unigene: 4636](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Picture:**



Blank control: Mouse spleen.

Primary Antibody (green line): Rabbit Anti-SGK1 antibody (SL4904R)

Dilution:  $2\mu\text{g} / 10^6$  cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution:  $1\mu\text{g} / \text{test}$ .

#### Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at  $-20^\circ\text{C}$ . The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.