

# SGK1 (PT1163R) PT™ Rabbit mAb

CatalogNo: YM9012 **Recombinant** 

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse, Rat

### Applications

- WB, IHC, IF, IP, ELISA

### MW

- 49kD (Calculated)
- 49kD (Observed)

### Isotype

- IgG, Kappa

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

## Recommended Dilution Ratios

**IHC 1:200-1:1000****WB 1:500-1:2000****IF 1:200-1:1000****ELISA 1:5000-1:20000****IP 1:50-1:200**

## Basic Information

**Clonality** Monoclonal**Clone Number** PT1163R

## Immunogen Information

**Specificity** Endogenous

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## | Target Information

**Gene name** SGK1

**Protein Name** Serine/threonine-protein kinase Sgk1

Organism	Gene ID	UniProt ID
Human	<a href="#">6446</a> ;	<a href="#">O00141</a> ;
Mouse	<a href="#">20393</a> ;	<a href="#">Q9WVC6</a> ;
Rat		<a href="#">Q06226</a> ;

**Cellular Localization**

Cytoplasm. Nucleus. Endoplasmic reticulum membrane. Cell membrane. Mitochondrion. The subcellular localization is controlled by the cell cycle, as well as by exposure to specific hormones and environmental stress stimuli. In proliferating cells, it shuttles between the nucleus and cytoplasm in synchrony with the cell cycle, and in serum/growth factor-stimulated cells it resides in the nucleus. In contrast, after exposure to environmental stress or treatment with glucocorticoids, it is detected in the cytoplasm and with certain stress conditions is associated with the mitochondria. In osmoregulation through the epithelial sodium channel, it can be localized to the cytoplasmic surface of the cell membrane. Nuclear, upon phosphorylation.; [Isoform 2]: Cell membrane.

**Tissue specificity**

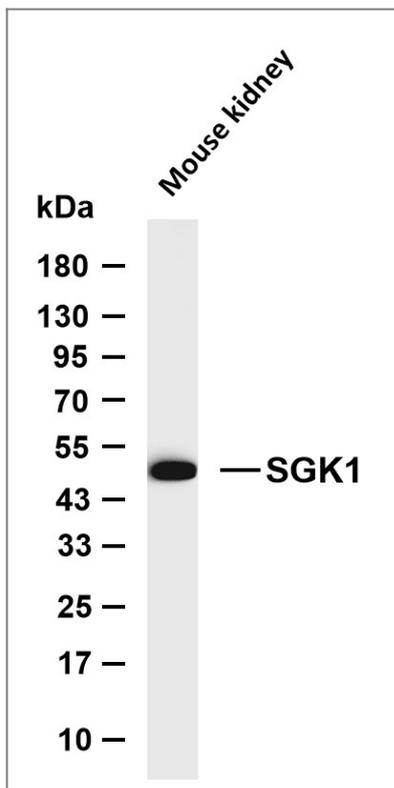
Expressed in most tissues with highest levels in the pancreas, followed by placenta, kidney and lung. Isoform 2 is strongly expressed in brain and pancreas, weaker in heart, placenta, lung, liver and skeletal muscle.

**Function**

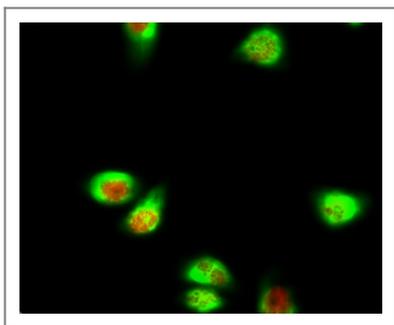
Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Two specific sites, one in the kinase domain (Thr-256) and the other in the C-terminal regulatory region (Ser-422), need to be phosphorylated for its full activation.,Function:Protein kinase that plays an important role in 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.,

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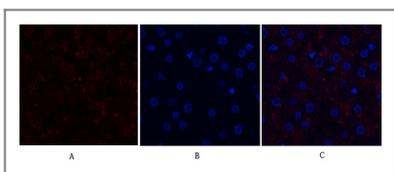
## | Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SGK1 (PT1163R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Mouse kidney Predicted band size: 49kDa Observed band size: 49kDa



Immunofluorescence analysis of HeLa cell. 1,SGK1 Antibody(red) was diluted at 1:200(4° overnight). α-SMA Monoclonal Antibody(6A12)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



Immunofluorescence analysis of human-liver tissue. 1,SGK1 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

## Contact information

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Please scan the QR code to access additional product information:  
**SGK1 (PT1163R)**  
**PT™ Rabbit mAb**