SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-SGK3 antibody

Catalog Number: SL6475R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	SGK3
Immunogen:	KLH conjugated synthetic peptide derived from human SGK3: 51-150/496
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Cow, Horse, Rabbit)
Predicted MW.:	57kDa
Subcellular Location:	cytoplasmic
Background:	Serine/threonine-protein kinase Sgk3 (SGK3), also designated serum/glucocorticoid regulated kinase 3, belongs to the Ser/Thr protein kinase family of proteins. The serum- and glucocorticoid-regulated kinase proteins are closely related to the Akt protein family. SGK1, a homolog of SGK3, activates ion channels, in particular potassium (K+) channels. SGK2 and SGK3 have been found to also be involved in this activation process, making all three of these proteins important regulators for cell proliferation, epithelial transport and neuromuscular excitability. SGK3 acts as a mediator of IL-3 dependent survival signals in the cell. It localizes to the early endosome and in vesicle-like structures. SGK3 is a widely expressed protein, but it is primarily detected in kidney, liver, pancreas, brain and heart. Phosphorylation of SGK3 at residue Ser 486 leads to an increase in SGK3 activation. **Function:** Serine/threonine-protein kinase which is involved in the regulation of a wide variety of ion channels, membrane transporters, cell growth, proliferation, survival and migration. Up-regulates Na(+) channels:

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	SCNN1A/ENAC and SCN5A, K(+) channels: KCNA3/KV1.3, KCNE1, KCNQ1 and KCNH2/HERG, epithelial Ca(2+) channels: TRPV5 and TRPV6, chloride channel: BSND, creatine transporter: SLC6A8, Na(+)/dicarboxylate cotransporter: SLC13A2/NADC1, Na(+)-dependent phosphate cotransporter: SLC34A2/NAPI-2B, amino acid transporters: SLC1A5/ASCT2 and SLC6A19, glutamate transporters: SLC1A3/EAAT1, SLC1A6/EAAT4 and SLC1A7/EAAT5, glutamate receptors: GRIA1/GLUR1 and GRIK2/GLUR6, Na(+)/H(+) exchanger: SLC9A3/NHE3, and the Na(+)/K(+) ATPase. Plays a role in the regulation of renal tubular phosphate transport and bone density. Phosphorylates NEDD4L and GSK3B. Positively regulates ER transcription activity through phosphorylation of FLII. Negatively regulates the function of ITCH/AIP4 via its phosphorylation and thereby prevents CXCR4 from being efficiently sorted to lysosomes. **Subunit:** Interacts with GSK3B and FLII. Interacts with PDPK1 in a phosphorylation-dependent manner. **Subcellular Location:** Cytoplasmic vesicle. Early endosome. Localized in vesicle-like structures and in the early endosome. **Tissue Specificity:** Expressed in most tissues with highest levels in pancreas, kidney liver, heart and brain and lower levels in lung, placenta and skeletal muscle. **Post-translational modifications:** Activated by phosphorylation on Ser-486 by an unknown kinase (may be mTORC2 but not confirmed), transforming it into a substrate for PDPK1 which then phosphorylates it on Thr-320. **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. Contains 1 PX (phox homology) domain. **Database links:** **Entrez Gene:** 100533105 Human **Entrez Gene:** 23678 Human Omim: 607591 Human **SwissProt:** Q96BR1 Human **Unigene:** 613417 Human

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[VALIDATION IMAGES]

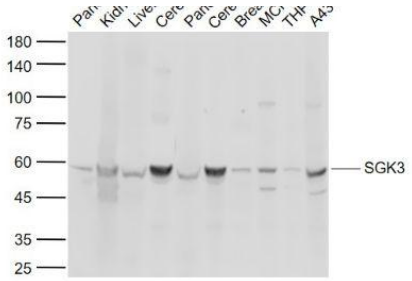


Figure 1. Sample: Lane 1: Mouse Pancreas tissue lysates Lane 2: Mouse Kidney tissue lysates Lane 3: Mouse Liver tissue lysates Lane 4: Mouse Cerebrum tissue lysates Lane 5: Rat Pancreas tissue lysates Lane 6: Rat Cerebrum tissue lysates Lane 7: Rat Breast tissue lysates Lane 8: Human MCF-7 cell lysates Lane 9: Human THP-1 cell lysates Lane 10: Human A431 cell lysates Primary: Anti-SGK3 (SL6475R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 57 kD Observed band size: 57 kD

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