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SGK3 Rabbit pAb

Catalog # AP96314

Product Information

Application	WB
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse SGK3
Epitope Specificity	71-170/496
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasmic vesicle. Early endosome. Localized in vesicle-like structures and in the early endosome.
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.
SUBUNIT	Interacts with GSK3B and FLII. Interacts with PDPK1 in a phosphorylation-dependent manner.
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Other Names	CISK; SGK2; SGKL; SGK3_HUMAN; SGK3; Cytokine-independent survival kinase; Serum/glucocorticoid-regulated kinase 3; Serum/glucocorticoid-regulated kinase-like; 2.7.11.1; serum/glucocorticoid regulated kinase family member 3; serum/glucocorticoid regulated kinase-like; serum/glucocorticoid regulated kinase family, member 3

Target/Specificity	Expressed in most tissues with highest levels in pancreas, kidney liver, heart and brain and lower levels in lung, placenta and skeletal muscle.
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.
Name	SGK3 Rabbit pAb
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: 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.

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