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SGK3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7949b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96BR1
Reactivity	Human
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57108
Antigen Region	108-139

Additional Information

Gene ID	23678
Other Names	Serine/threonine-protein kinase Sgk3, Cytokine-independent survival kinase, Serum/glucocorticoid-regulated kinase 3, Serum/glucocorticoid-regulated kinase-like, SGK3, CISK, SGKL
Target/Specificity	This SGK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 108-139 amino acids from the Central region of human SGK3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SGK3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SGK3
Synonyms	CISK, SGKL
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.
Cellular Location	Cytoplasmic vesicle. Early endosome. Recycling endosome. Note=Endosomal localization is a prerequisite for complete kinase activity. It is essential for its colocalization with the kinase responsible for phosphorylating Ser-486 thus allowing PDPK1 phosphorylation of Thr-320 resulting in complete activation of SGK3. Localized in vesicle-like structures and in the early endosome. Colocalizes with SLC9A3/NHE3 in the recycling endosomes
Tissue Location	Expressed in most tissues with highest levels in pancreas, kidney liver, heart and brain and lower levels in lung, placenta and skeletal muscle. Expression is higher in ER-positive breast tumors than ER-negative breast tumors

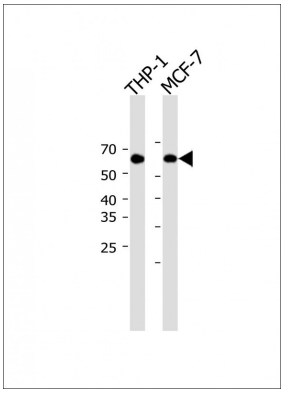
Background

SGK3, a Ser/Thr protein kinase, is similar to serum- and glucocorticoid-induced protein kinase (SGK), but this gene product is not induced by serum or glucocorticoids. Expression is induced in response to signals that activate phosphatidylinositol 3-kinase, which is also true for SGK.

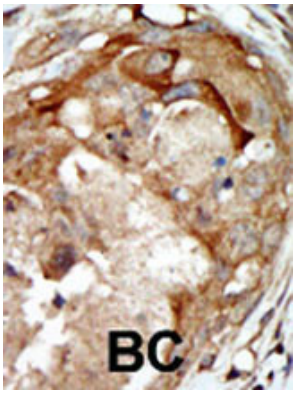
References

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Embark, H.M., et al., Pflugers Arch. 445(5):601-606 (2003).
Brickley, D.R., et al., J. Biol. Chem. 277(45):43064-43070 (2002).
Gamper, N., et al., Pflugers Arch. 445(1):60-66 (2002).
Dai, F., et al., Biochem. Biophys. Res. Commun. 293(4):1191-1196 (2002).

Images



All lanes: Anti-SGK3 Antibody (Center) at 1:500 dilution Lane 1: THP-1 whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 60 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- IL-6 activates serum and glucocorticoid kinase via p38alpha mitogen-activated protein kinase pathway.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.