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SGK3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP7949b

Specification

SGK3 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q96BR1

SGK3 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 100533105;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
The synthetic peptide sequence used to generate the antibody AP7949b was selected from the Center region of human SGK3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SGK3 Antibody (Center) Blocking Peptide - 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

SGK3 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SGK3 Antibody (Center) Blocking Peptide - Images

SGK3 Antibody (Center) Blocking Peptide - 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.

SGK3 Antibody (Center) Blocking Peptide - References

Friedrich, B., et al., Pflugers Arch. 445(6):693-696 (2003).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).