10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SGK2, Active recombinant protein

SGK, serum/glucocorticoid regulated kinase 2
Catalog # PBV11324r

Specification

SGK2, Active recombinant protein - Product info

Primary Accession	Q9HBY8-2
Concentration	**0.1**
Calculated MW	**71.0 kDa KDa**

SGK2, Active recombinant protein - Additional Info

Gene ID	**10110**
Gene Symbol	**SGK2**

Other Names
SGK, serum/glucocorticoid regulated kinase 2

Source	**Baculovirus (Sf9 insect cells)**
Assay&Purity	**SDS-PAGE; ≥90%**
Assay2&Purity2	**HPLC;**
Recombinant	**Yes**

Format
Liquid

Storage
-80°C; Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

SGK2, Active recombinant protein - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SGK2, Active recombinant protein - Images

SGK2, Active recombinant protein - Background

SGK2 is a member of the serum- and glucocorticoid-induced kinases (SGK) which are serine-threonine kinases and belong to the "AGC" kinase subfamily, which includes protein kinases A, G, and C, and its catalytic domain is most similar to protein kinase B (PKB). SGK1 was originally identified as a glucocorticoid-sensitive gene and subsequently, the two homologous kinases SGK2

and SGK3 have been cloned, being products of distinct genes, which are differentially expressed and share 80% identity in amino acid sequence in their catalytic domains . SGK2, like the other two isoforms SGK1 and SGK3, is stimulated by insulin and insulin-like growth factor-1 (IGF-1), and has been shown to enhance Na(+)/K(+)-ATPase activity in a variety of cells. In addition, SGK2 mimics the function of SGK1 and SGK3 and participate in the regulation of renal epithelial Na(+) channel ENaC activity.

SGK2 is activated by phosphorylation in response to signals that stimulate phosphatidylinositol 3-kinase by a huge number of extracellular signals. The phosphorylation of SGK2 is mediated by 3-phosphoinositide-dependent protein kinase 1 (PDK1) and other protein kinases that have yet to be identified. The substrate specificity of SGK isoforms superficially resembles that of PKB in that serine and threonine residues lying in Arg-Xaa-Arg-Xaa-Xaa-Ser/Thr sequences (where Xaa is a variable amino acid) are phosphorylated. However, although they may have some substrates in common, evidence is emerging that SGKs and PKB phosphorylate distinct proteins and have different functions in vivo. In particular, SGKs play an important role in activating certain potassium, sodium, and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability, and renal sodium excretion. Moreover, sustained high levels of SGK protein and activity may contribute to conditions such as hypertension and diabetic nephropathy.