

Recombinant human SGK1 protein ab60883

[5 Images](#)

Description

Product name	Recombinant human SGK1 protein
Biological activity	Specific Activity: 117 nmol/min/mg.
Purity	> 95 % SDS-PAGE. Purity: >95% as determined by densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	<u>O00141-1</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	73 kDa
Amino acids	60 to 431
Tags	GST tag N-Terminus
Additional sequence information	Recombinant fragment, corresponding to amino acids 60-end of Human SGK1.

Specifications

Our **Abpromise guarantee** covers the use of **ab60883** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid
Additional notes	<u>ab204849</u> (AKT1 peptide) can be utilized as a substrate for assessing kinase activity

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292%
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EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

Protein kinase that plays an important role in cellular stress response. Activates certain potassium, sodium, and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability and renal sodium excretion. Sustained high levels and activity may contribute to conditions such as hypertension and diabetic nephropathy. Mediates cell survival signals, phosphorylates and negatively regulates pro-apoptotic FOXO3A. Phosphorylates NEDD4L, which leads to its inactivation and to the subsequent activation of various channels and transporters such as ENaC, KCNA3/Kv1.3 or EAAT1. Isoform 2 exhibited a greater effect on cell plasma membrane expression of ENaC and Na(+) transport than isoform 1.

Tissue specificity

Expressed in most tissues with highest levels in the pancreas, followed by placenta, kidney and lung. Isoform 2 is strongly expressed in brain and pancreas, weaker in heart, placenta, lung, liver and skeletal muscle.

Sequence similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.
Contains 1 AGC-kinase C-terminal domain.
Contains 1 protein kinase domain.

Domain

Isoform 2 subcellular localization at the plasma membrane is mediated by the sequences within the first 120 amino acids.

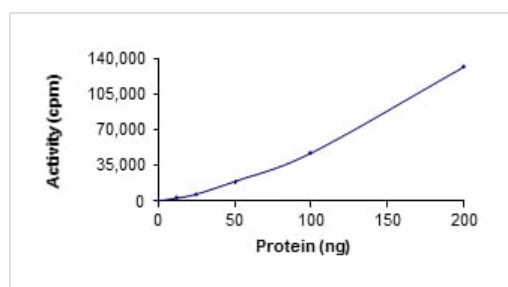
Post-translational modifications

Regulated by phosphorylation. Phosphoinositide 3-kinase (PI3-kinase) pathway promotes phosphorylation at Ser-422 which in turn increases the phosphorylation of Thr-256 by PDPK1. Ubiquitinated by NEDD4L; which promotes proteasomal degradation. Ubiquitinated by SYVN1 at the endoplasmic reticulum; which promotes rapid proteasomal degradation and maintains a high turnover rate in resting cells. Isoform 2 shows enhanced stability. Isoform 2 resistance to proteasomal degradation is mediated by the sequences within the first 120-amino acid.

Cellular localization

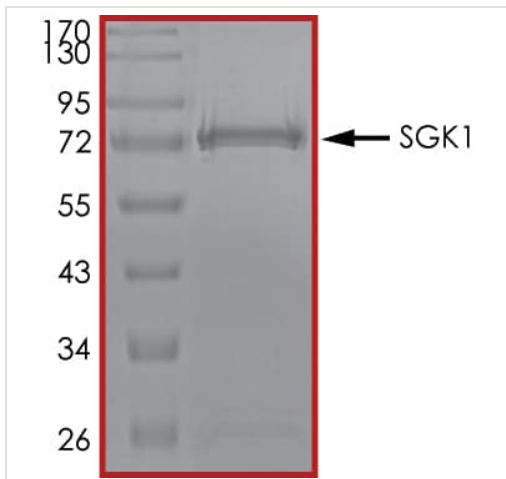
Cell membrane and Cytoplasm. Nucleus. Endoplasmic reticulum. Nuclear, upon phosphorylation.

Images



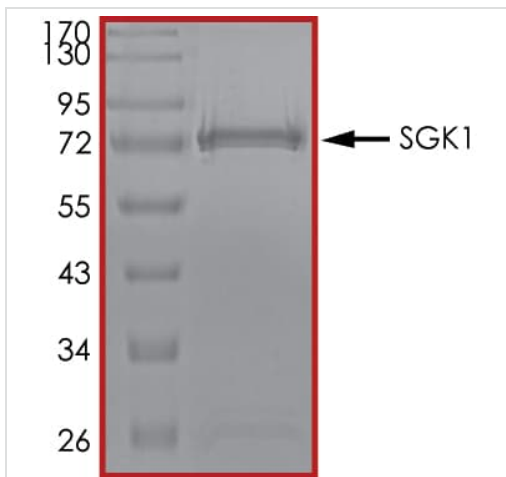
The specific activity of SGK1 (ab60883) was determined to be 99 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human SGK1 protein (ab60883)



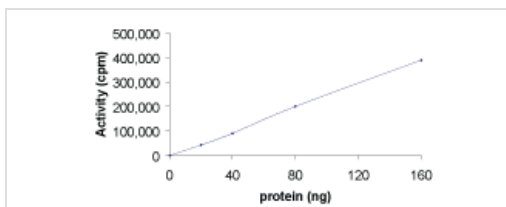
SDS-PAGE - Recombinant human SGK1 protein
(ab60883)

SDS PAGE analysis of ab60883



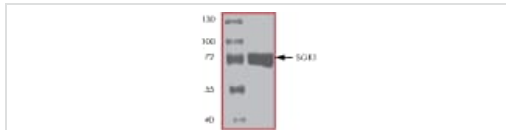
SDS-PAGE - Recombinant human SGK1 protein
(ab60883)

SDS PAGE analysis of ab60883



Functional Studies - Recombinant human SGK1
protein (ab60883)

Sample Kinase Activity Plot.



ab60883 on SDS-PAGE, MW ~73 kDa.

SDS-PAGE - Recombinant human SGK1 protein
(ab60883)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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