

Product datasheet

Anti-SGK1 antibody ab59337

[9 References](#) [4 Images](#)

Overview

Product name	Anti-SGK1 antibody
Description	Rabbit polyclonal to SGK1
Host species	Rabbit
Specificity	Detects endogenous levels of total SGK protein.
Tested applications	Suitable for: ICC/IF, WB, ELISA, IHC-FoFr, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthesized non-phosphopeptide derived from human SGK1 around the phosphorylation site of serine 78 (P-P-S ^P -P-S).
Positive control	Human brain.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab59337** in the following tested applications.

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

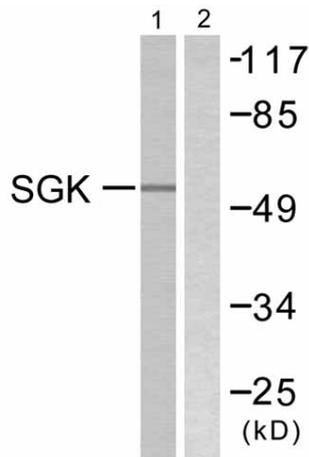
Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
WB		1/500 - 1/1000. Detects a band of approximately 55 kDa (predicted molecular weight: 49 kDa).

Application	Abreviews	Notes
ELISA		1/5000.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 20459597
IHC-P		1/50 - 1/100.

Target

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



Western blot - Anti-SGK1 antibody (ab59337)

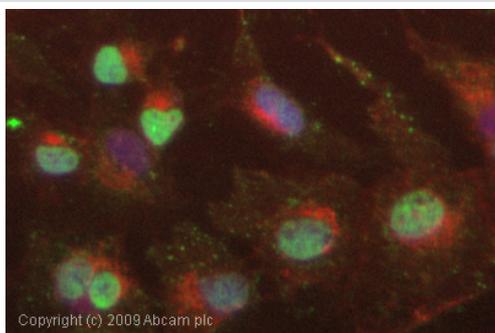
All lanes : Anti-SGK1 antibody (ab59337) at 1/500 dilution

Lane 1 : 293 cells treated with heat shock

Lane 2 : 293 cells treated with heat shock with immunizing non-phosphopeptide

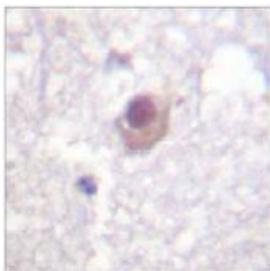
Predicted band size: 49 kDa

Observed band size: 55 kDa



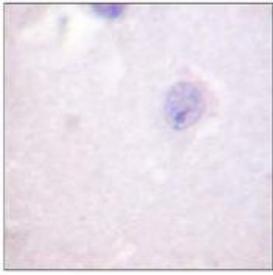
Immunocytochemistry/ Immunofluorescence - Anti-SGK1 antibody (ab59337)

ICC/IF image of ab59337 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab59337, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SGK1 antibody (ab59337)

ab59337, at a 1/50-1/100 dilution, staining SGK1 in Human brain sections.



ab59337, at a 1/50-1/100 dilution, staining SGK1 in Human brain sections, in the presence of the immunizing peptide.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SGK1 antibody (ab59337)

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