SIK, Active
Recombinant human protein expressed in Sf9 cells

Catalog # S14-11G
Lot # H2882-2

Product Description
Recombinant human SIK (1-303) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is NM_173354.

Gene Aliases
SNF1LK, MSK, SIK1

Formulation
Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, and 25% glycerol.

Storage and Stability
Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Scientific Background
SIK is a protein kinase that is involved in regulating AMPK-related kinases (1). SIK may mediate the physiological effects of LKB1, including its tumour suppressor function. SIK is also involved in signaling by various proteins like STRAD, NUAK1, NUAK2, BRSK1, BRSK2, QIK, QSK, SIK, MARK1, MARK2, MARK3, MARK4 and MELK that are related to AMPK. Activation of SIK1 by phosphorylation on thr322 can lead to an increase in the catalytic activity of sodium/potassium ATPase alpha subunit at the plasma membrane (2). This results in an increase in intracellular sodium in intact mammalian cells.

References

Specific Activity
The specific activity of SIK was determined to be 155 nmol/min/mg as per activity assay protocol.

Purity
The purity of SIK was determined to be >90% by densitometry. Approx. MW 61kDa.