

SGK3 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	serum/glucocorticoid regulated kinase family, member 3;SGK2;CISK;SGKL
Protein Construction:	A DNA sequence encoding the human SGK3 (Q96BR1-1) (Met 1-Leu 496) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q96BR1-1
Molecular Weight:	85 kDa (predicted); 68 kDa (reducing conditions)

QC Testing

Biological Activity:	No Kinase Activity
Purity:	> 80 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM NaCl, 0.5 mM PMSF, 10% gly, 1 mM GSH, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Serine / threonine-protein kinase Sgk3, also known as Serum / glucocorticoid-regulated kinase 3, Serum / glucocorticoid-regulated kinase-like and SGK3, is a cytoplasmic vesicle protein that belongs to the protein kinase superfamily and AGC Ser/Thr protein kinase family. SGK3 contains one AGC-kinase C-terminal domain, one protein kinase domain and one PX (phox homology) domain. Two specific sites of SGK3, one in the kinase domain (Thr-32)

and the other in the C-terminal regulatory region (Ser-486), is needed to be phosphorylated for its full activation. SGK3 is expressed in most tissues with highest levels in pancreas, kidney liver, heart and brain and lower levels in lung, placenta and skeletal muscle. SGK3 is involved in the activation of potassium channels. It mediates cell IL-3-dependent survival signals. SGK3 participates in the regulation of HERG by increasing HERG protein abundance in the plasma membrane and may thus modify the duration of the cardiac action potential. SGK3 is also a very important and characteristic molecule that plays a critical role in both hair follicle morphogenesis and hair cycling.

Reference

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