Certificate of Analysis

REACTION BIOLOGY

ProQinase™ SGK3

serum/glucocorticoid regulated kinase family member 3

Recombinant Human Active Protein Kinase

HGNC Symbol: SGK3

Synonyms: CISK, SGKL, SGK2

Product No.: 0198-0000-2

Lot: 004

Description: Human SGK3, full length, amino acids M_1-L_{496} (as in NCBI/Protein entry NP_037389.4), activated, N-terminal GST-fusion protein, expressed in Sf9 insect cells

Product identity: SGK3 Lot 004, was confirmed as SGK3 by mass spectroscopy LC-ESI-MS/MS

Theoretical $MW_{Fusion\ Protein}$: 83,186 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: With PDK1

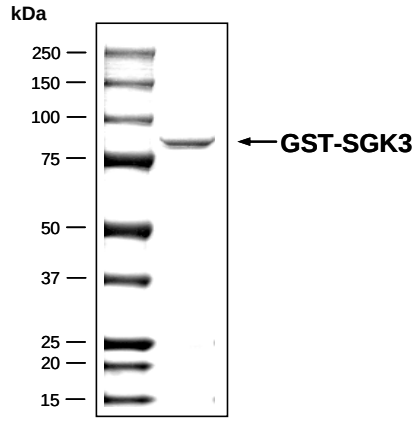
Storage buffer: 50 mM TRIS-HCl pH 8.0, 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.201 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

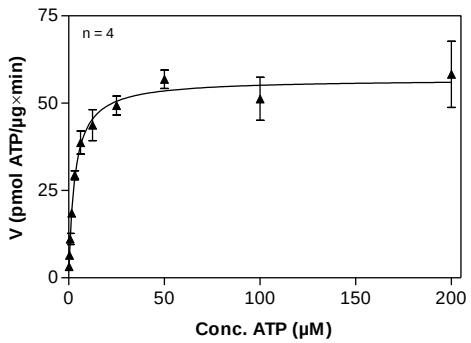
Biochemical Parameters:
Specific kinase activity (P_i transfer): 57 pmol/µg × min
ATP-K_M: 3.1 µM

SGK3 Lot 004:
Coomassie stain



2.0 µg GST-SGK3

SGK3 Lot 004:
Determination of V_{max} and K_M value for ATP



• Assay conditions:
60 mM HEPES-NaOH, pH 7.5
3 mM $MgCl_2$
3 mM $MnCl_2$
3 µM Na-orthovanadate
1.2 mM DTT
50 µg/ml $PEG_{20.000}$
ATP (variable)
Substrate: GSK3-derived peptide, 100 µg/ml
Kinase: 4 µg/ml
• Filter binding assay
MSPH membrane (Millipore)

Additional assay technology:
SGK3 Lot 004 was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

Recombinant Proteins

REACTION BIOLOGY

ProQinase™ SGK3

Product No.: 0198-0000-2

GST-SGK3 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID	60
61	GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV	120
121	DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK	180
181	KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD PGIQ**MQRDHT MDYKESCPSV**	240
241	**SIPSSDEHRE KKKRFTVYKV LVSVGRSEWF VFRRYAEFDK LYNTLKKQFP AMALKIPAKR**	300
301	**IFGDNFDPDF IKQRRAGLNE FIQNLVRYPE LYNHPDVRAF LQMDSPKHQS DPSEDEDERS**	360
361	**SQKLHSTSQN INLGPSGNPH AKPTDFDFLK VIGKGSFGKV LLAKRKLDGK FYAVKVLQKK**	420
421	**IVLNRKEQKH IMAERNVLLK NVKHPFLVGL HYSFQTTEKL YFVLDFVNGG ELFFHLQRER**	480
481	**SFPEHRARFY AAEIASALGY LHSIKIVYRD LKPENILLDS VGHVVLTDFG LCKEGIAISD**	540
541	**TTTTFCGTPE YLAPEVIRKQ PYDNTVDWWC LGAVLYEMLY GLPPFYCRDV AEMYDNILHK**	600
601	**PLSLRPGVSL TAWSILEELL EKDRQNRLGA KEDFLEIQNH PFFESLSWAD LVQKKIPPPF**	660
661	**NPNVAGPDDI RNFDTAFTEE TVPYSVCVSS DYSIVNASVL EADDAFVGFS YAPPSEDLFL**	720

1-218: GST **blue**: SGK3

SGK3 wt[1] Amino Acid Sequence

1	**MQRDHTMDYK ESCPSVSIPS SDEHREKKKR FTVYKVLVSV GRSEWFVFRR YAEFDKLYNT**	60
61	**LKKQFPAMAL KIPAKRIFGD NFDPDFIKQR RAGLNEFIQN LVRYPELYNH PDVRAFLQMD**	120
121	**SPKHQSDPSE DEDERSSQKL HSTSQNINLG PSGNPHAKPT DFDFLKVIGK GSFGKVLLAK**	180
181	**RKLDGKFYAV KVLQKKIVLN RKEQKHIMAE RNVLLKNVKH PFLVGLHYSF QTTEKLYFVL**	240
241	**DFVNGGELFF HLQRERSFPE HRARFYAAEI ASALGYLHSI KIVYRDLKPE NILLDSVGHV**	300
301	**VLTDFGLCKE GIAISDTTTT FCGTPEYLAP EVIRKQPYDN TVDWWCLGAV LYEMLYGLPP**	360
361	**FYCRDVAEMY DNILHKPLSL RPGVSLTAWS ILEELLEKDR QNRLGAKEDF LEIQNHPFFE**	420
421	**SLSWADLVQK KIPPPFNPNV AGPDDIRNFD TAFTEETVPY SVCVSSDYSI VNASVLEADD**	480
481	**AFVGFSYAPP SEDLFL**	540

blue: SGK3 sequence expressed in recombinant protein

[1]NCBI/Protein accession number NP_037389.4

Recombinant Proteins