

Certificate of Analysis

SGK (SGK1), 100 µg

Recombinant Human Serum/Glucocorticoid-Regulated Kinase, GST-tagged

ThermoFisher
SCIENTIFIC

Part Number: PR7358A

Lot Number: 2095137E

Immediate Storage: -80°C

Shipping Conditions: dry ice

5781 Van Allen Way

Carlsbad, CA 92008

Phone: 760.603.7200

www.thermofisher.com

Description:

Recombinant Human protein, Catalytic Domain (amino acids 60-431), GST-tagged, expressed in insect cells. Activated *in vitro* by His-tagged PDK1.

Specific Activity:

1,490 nmoles of phosphate transferred to Crosstide peptide substrate (GRPTSSFAEG) per minute per mg of total protein at 30°C. Activity determined at a final protein concentration of 1.67 µg/mL.

Concentration:

0.25 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

Calculated **3,590 nM**.

Aliases:

SGK1

Storage and Handling:

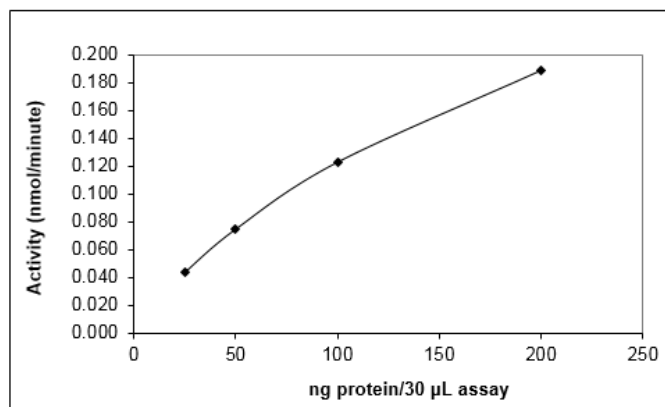
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10 µg and 20 µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 20 µL are not recommended. **Please never store a kinase diluted.** If properly stored at -80°C, this product is guaranteed for 6 months from date of purchase.

Storage Buffer:

50 mM Tris (pH 7.5), 150 mM NaCl, 0.5 mM EDTA, 0.02% Triton® X-100, 2 mM DTT and 50% Glycerol.

QUALITY ASSURANCE

SGK (SGK1) Activity Graph



Dilution Buffer:

20 mM Tris (pH 7.5), 0.02% Triton® X-100, 0.1 mg/mL BSA, 2 mM DTT, 0.5 mM Na₃VO₄ and 10% Glycerol.

Assay Conditions:

SGK (SGK1) was pre-diluted in enzyme dilution buffer and assayed in 25 mM Tris (pH 7.5), 10 mM MgCl₂, 0.5 mM EGTA, 0.5 mM Na₃VO₄, 5 mM β-glycerophosphate, 2.5 mM DTT, 0.01% Triton® X-100, 200 µM ATP, 3,300 µM Crosstide peptide substrate (GRPTSSFAEG) and trace [³²P]-γ-ATP for 10 minutes at 30°C.

Gel Information for SGK (SGK1)

Page Description: The SDS-PAGE and/or Native PAGE were run on 4-20% Tris-Glycine Novex® gels (Catalog #: EC6025BOX).

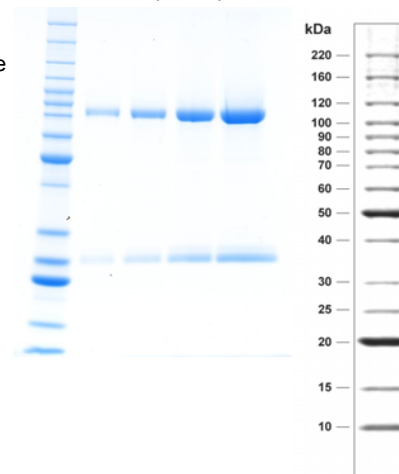
Lane 1: Invitrogen™ BenchMark™ Protein Ladder (Catalog #: 10747-012).

Lane 2: 0.5 µg SGK (SGK1)

Lane 3: 1.0 µg SGK (SGK1)

Lane 4: 2.5 µg SGK (SGK1)

Lane 5: 5.0 µg SGK (SGK1)



Purity:

85% as determined by a Coomassie® blue stained SDS-PAGE gel.

Molecular Weight:

69.7 kDa. Calculated from the protein sequence(s).

Mass Spectrometry:

SGK (SGK1) was subjected to proteolytic digest followed by mass spec analysis. The resulting MS/MS data verified SGK (SGK1) identity by comparison against the amino acid sequence(s) of the recombinant protein.

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_005618

1	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HYLERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	GST TAG
1	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HYLERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	IVGN SGK
60											NP_005618
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSSKYIA	
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSSKYIA	
60											
201	WPLQGWQATF	GGGDHPPKSD	LVPR								
201	WPLQGWQATF	GGGDHPPKSD	LVPRHNTSL	YKAGTISQP	QEPELMNANP	SPPSPSQI	NLGPSSNPHA	KPSDFHFLKV	IGKGSFGKVL	LARHKAEEVF	
60				-----ISQP	QEPELMNANP	SPPSPSQI	NLGPSSNPHA	KPSDFHFLKV	IGKGSFGKVL	LARHKAEEVF	
224											
301	YAVKVLQKKA	ILKKKEEKHI	MSERNVLLKN	VKHPFLVGLH	FSFQTADKLY	FVLDYINGGE	LFYHLQRERC	FLEPRARFYA	AEIASALGYL	HSLNIVYRDL	
124	YAVKVLQKKA	ILKKKEEKHI	MSERNVLLKN	VKHPFLVGLH	FSFQTADKLY	FVLDYINGGE	LFYHLQRERC	FLEPRARFYA	AEIASALGYL	HSLNIVYRDL	
224											
401	KPENILLDSQ	GHIVLTDGFL	CKENIEHNST	TSTFCGTPEY	LAPEVLHKQP	YDRTVDWCL	GAVLYEMLYG	LPPFYSRNTA	EMYNILNKP	LQLKPNITNS	
224	KPENILLDSQ	GHIVLTDGFL	CKENIEHNST	TSTFCGTPEY	LAPEVLHKQP	YDRTVDWCL	GAVLYEMLYG	LPPFYSRNTA	EMYNILNKP	LQLKPNITNS	
224											
501	ARHLLLEGLLQ	KDRTKRLGAK	DDFMEIKSHV	FFSLINWDDL	INKKITPPFN	PNVSGPNDLR	HFDPEFTEEP	VPNSIGKSPD	SVLVTASVKE	AAEFLGFDY	
324	ARHLLLEGLLQ	KDRTKRLGAK	DDFMEIKSHV	FFSLINWDDL	INKKITPPFN	PNVSGPNDLR	HFDPEFTEEP	VPNSIGKSPD	SVLVTASVKE	AAEFLGFSY	
224											
601	APPTDSFL										
424	APPTDSFL										

* highlighted residues denote differences from the reference protein sequence(s).

Anita Targosz

Anita Targosz, Associate Director

Date: 02/Jul/2019

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