

Certificate of Analysis

SBK1, 10 µg

Recombinant human SBK1 expressed in insect cells

ThermoFisher
SCIENTIFIC

Part Number: A30518

Lot Number: 3175182

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 full-length SBK1 was expressed in insect cells using a N-terminal GST tag.

SBK1 or SH3 domain binding kinase 1 is a novel serine/threonine protein kinase structurally related to a *Xenopus* gastrula-specific protein kinase, Pk9.7 which possessing a consensus sequence for an SH3-binding domain from developing rat brain. SBK1 plays an important role in signal-transduction pathways related to the control of brain development. SBK1 may predict a broad cellular function, and its dysregulated in certain cancers suggests an involvement of the protein in the pathogenesis of human cancers.

Accession Number:

The gene accession number for SBK1 is NP_001019572.1.

Specific Activity:

19 nmoles of ADP formed per min per mg of total protein using an ADP accumulation assay.

Concentration:

0.1 mg/mL as determined by densitometry of the kinase gel band(s).

Calculated **1,380 nM**.

Aliases:

SBK

Storage and Handling:

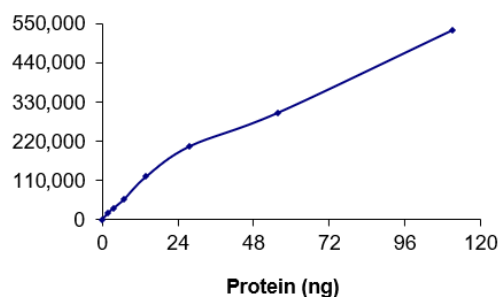
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10µg and 20µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 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-HCl (pH 7.5), 150 mM NaCl, 10 mM Glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF and 25% Glycerol.

QUALITY ASSURANCE

SBK1 Activity Graph



Dilution Buffer:

40 mM Tris-HCl (pH 7.4), 20 mM MgCl₂, 50 µM DTT and 0.1 mg/mL BSA.

Assay Conditions:

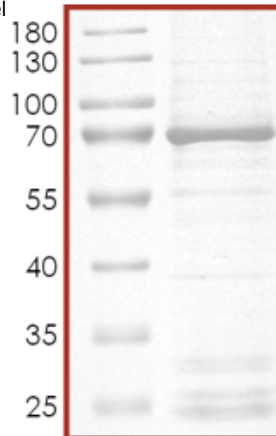
SBK1 was pre-diluted in enzyme dilution buffer and assayed in 40 mM Tris-HCl (pH 7.4), 20 mM MgCl₂, 50 µM DTT and 0.1 mg/mL BSA with 25 µM ATP in an ADP accumulation assay using 200 µg/mL PKA peptide substrate (CGRTGRRNSI-amide) for 40 minutes at room temperature.

Gel Information for SBK1

Page Description: Run on an SDS-PAGE gel and stained with Coomassie®.

Lane 1: Molecular Weight markers as labeled.

Lane 2: SBK1



Purity:

> 85% as determined by a Coomassie® blue stained SDS-PAGE gel, excluding endogenous GST.

Molecular Weight:

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

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_001019572.1

1 MSPILGYWKIKGLVQPTRLLLEYLEEKYEHLVERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAISMLEGAVL GST
1 MSPILGYWKIKGLVQPTRLLLEYLEEKYEHLVERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAISMLEGAVL Life SBK1
1 M-----NP_001019572.1

101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
3 -----

201 WPLQGWQATFGGGDHPKSD
201 WPLQGWQATFGGGDHPKSDLVPRGSMVSGCPEPEPPRSLTCCGPGTAPGPGAGVPLLTEDMQALTLRTLAASDVTKHYELVRELKGKTYGKVDLVVYKG
3 -----SVGCPEPEPPRSLTCCGPGTAPGPGAGVPLLTEDMQALTLRTLAASDVTKHYELVRELKGKTYGKVDLVVYKG

220
301 TGTKMALKFVNKSKTKLKNFLREVSIITNSLSSSPFIKVKFDVVFETEDCYVFAQEYAPAGDLFDIIPPQVGLPEDTVKRCVQQLGLALDFMHGRQLVHRD
75 TGTKMALKFVNKSKTKLKNFLREVSIITNSLSSSPFIKVKFDVVFETEDCYVFAQEYAPAGDLFDIIPPQVGLPEDTVKRCVQQLGLALDFMHGRQLVHRD

220
401 IKPENVLFDRECRRVKLADFGMTRRVGCRVKRVSGTIPYTAPEVCQAGRADGLAVDTGVDVWAFGVLI FCVLTGNFPWEAASGADAFEEFVRWQRGRL
175 IKPENVLFDRECRRVKLADFGMTRRVGCRVKRVSGTIPYTAPEVCQAGRADGLAVDTGVDVWAFGVLI FCVLTGNFPWEAASGADAFEEFVRWQRGRL

220
501 PGLPSQWRRFTEPALRMFQRLLEPERRGPAKEVFRFLKHELTSELRRRPSHRARKPPGDRPPAAGPLRLEAPGPKRTVLTESGSGSRPAPPVAVGSVP
275 PGLPSQWRRFTEPALRMFQRLLEPERRGPAKEVFRFLKHELTSELRRRPSHRARKPPGDRPPAAGPLRLEAPGPKRTVLTESGSGSRPAPPVAVGSVP

220
601 LPVPVPVPVPVPVPPEGLAPQGPPGRTDGRADKSKGQVVLATAIEICV
375 LPVPVPVPVPVPVPPEGLAPQGPPGRTDGRADKSKGQVVLATAIEICV

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



Chevojn Joseph, Director, Quality

Date: 19/Mar/2025

Coomassie® is a registered trademark of Imperial Chemical Industries.

For Research Use Only. Not for use in diagnostic procedures.