

# Certificate of Analysis

## SBK1, 10 µg

Recombinant human SBK1 expressed in insect cells

**ThermoFisher**  
SCIENTIFIC

**Part Number:** A30518

**Lot Number:** 3026210

**Immediate Storage:** -80°C

**Shipping Conditions:** dry ice

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### 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:

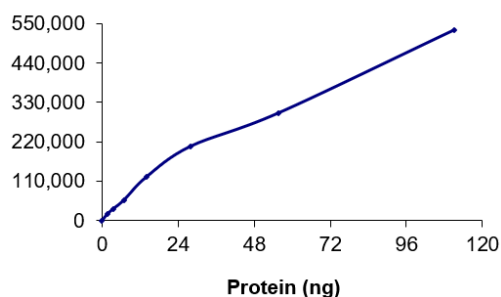
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10 µg and 20 µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 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-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 MgCl<sub>2</sub>, 50 µM DTT and 0.1 mg/mL BSA.

### Assay Conditions:

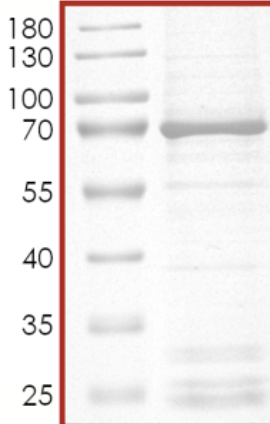
SBK1 was pre-diluted in enzyme dilution buffer and assayed in 40 mM Tris-HCl (pH 7.4), 20 mM MgCl<sub>2</sub>, 50 µM DTT and 0.1 mg/mL BSA with 25 µM ATP in an ADP accumulation assay using 200 µg/mL PKA peptide substrate (CGRTGRRNSI-amide) for 40 minutes at room temperature.

### 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 TGTKMALKFVNKSKTKLKNFLREVSIITNSLSSSPFIKIVFDVVFETEDCYVFAQEYAPAGDLFDIIPPQVGLPEDTVKRCVQQLGLALDFMHGRQLVHRD  
75 TGTKMALKFVNKSKTKLKNFLREVSIITNSLSSSPFIKIVFDVVFETEDCYVFAQEYAPAGDLFDIIPPQVGLPEDTVKRCVQQLGLALDFMHGRQLVHRD

220  
401 IKPENVLFLDRECRRVKLADFGMTRRVGCRVKRVSGTIPYTAPEVCQAGRADGLAVDTGVDVWAFGVLI FCVLTGNFPWEAASGADAFEEFVRWQRGRL  
175 IKPENVLFLDRECRRVKLADFGMTRRVGCRVKRVSGTIPYTAPEVCQAGRADGLAVDTGVDVWAFGVLI 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: 09/Aug/2024

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