

Certificate of Analysis

STK24 (MST3), 10 µg

Serine/Threonine Kinase 24, GST-tagged

ThermoFisher
SCIENTIFIC

Part Number: PV3650

Lot Number: 2824656B

Immediate Storage: -80°C

Shipping Conditions: dry ice

5781 Van Allen Way

Carlsbad, CA 92008

Phone: 760.603.7200

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Description:

Recombinant human full-length protein, GST-tagged, expressed in insect cells containing additional C-terminal amino acids KGGRADPAFLYKVV (legacy from Gateway™ cloning). No special measures were taken to activate this kinase.

Specific Activity:

20 nmoles of phosphate transferred to myelin basic protein (MBP) per minute per mg of total protein at 30°C. Activity determined at a final protein concentration of 3.33 µg/mL.

Concentration:

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

Calculated **3,810 nM**.

Aliases:

MST3, STK3, MST-3

Storage and Handling:

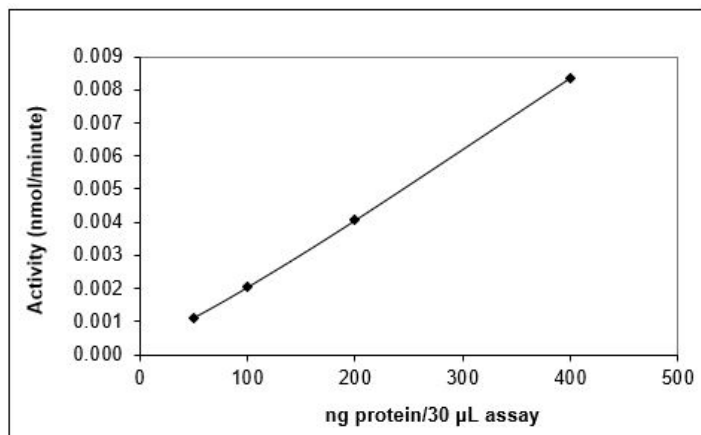
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10 µg and 20 µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 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

STK24 (MST3) Activity Graph



Dilution Buffer:

20 mM Tris (pH 7.5), 0.05% Triton® X-100, 0.1 mg/mL BSA, 2 mM DTT, 0.5 mM Na₃VO₄ and 10% Glycerol.

Assay Conditions:

STK24 (MST3) 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, 100 µM ATP, 667 µg/mL myelin basic protein (MBP) and trace [³²P]-γ-ATP for 10 minutes at 30°C.

Gel Information for STK24 (MST3)

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

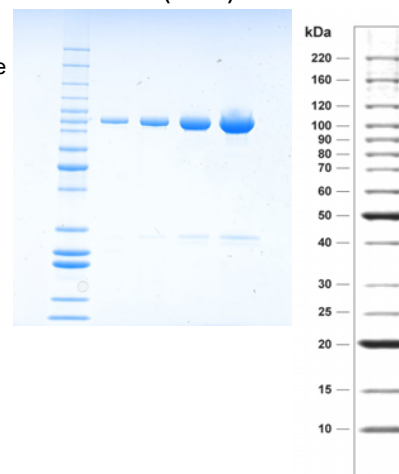
Lane 1: Invitrogen™ BenchMark™ Protein Ladder (Catalog #: 10747-012).

Lane 2: 0.5 µg STK24 (MST3)

Lane 3: 1.0 µg STK24 (MST3)

Lane 4: 2.5 µg STK24 (MST3)

Lane 5: 5.0 µg STK24 (MST3)



Purity:

90% as determined by a SDS-PAGE gel stained with SimplyBlue™ SafeStain.

Molecular Weight:

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

Mass Spectrometry:

STK24 (MST3) was subjected to proteolytic digest followed by mass spec analysis. The resulting MS/MS data verified STK24 (MST3) identity by comparison against the amino acid sequence(s) of the recombinant protein.

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_003567

1	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQDMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	GST TAG
1	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQDMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	IVGN STK24
1											NP_003567
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSKYIA	
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSKYIA	
1											
201	WPLQGWQATF	GGGDHPPKSD	LVPR								
201	WPLQGWQATF	GGGDHPPKSD	LVPRHNQTSL	YKKAGSAAAP	FTMDSRAQLW	GLALNKRRAT	LPHPGGSTNL	KADPEELFTK	LEKIGKGSFG	EVFKGIDNRT	
1					--MDSRAQLW	GLALNKRRAT	LPHPGGSTNL	KADPEELFTK	LEKIGKGSFG	EVFKGIDNRT	
224											
301	QKVVAIKIID	LEEADEIED	IQQEITVLSQ	CDSPYVTKY	GSYLKDTKLW	IIMEYLGGS	ALDLLEPGPL	DETQIATILR	EILKGLDYLH	SEKKIHRDIK	
59	QKVVAIKIID	LEEADEIED	IQQEITVLSQ	CDSPYVTKY	GSYLKDTKLW	IIMEYLGGS	ALDLLEPGPL	DETQIATILR	EILKGLDYLH	SEKKIHRDIK	
224											
401	AANVLLSEHG	EVKLADFGVA	GQLTDTQIKR	NTFVGTPFFWM	APEVIKQSAY	DSKADIWSLG	ITAIELARGE	PPHSELHPMK	VLFLIPKNNP	PTLEGNYSKP	
159	AANVLLSEHG	EVKLADFGVA	GQLTDTQIKR	NTFVGTPFFWM	APEVIKQSAY	DSKADIWSLG	ITAIELARGE	PPHSELHPMK	VLFLIPKNNP	PTLEGNYSKP	
224											
501	LKEFVEACLN	KEPSFRPTAK	ELLKHKFILR	NAKKTSYLTE	LIDRYKRWKA	EQSHDDSSSE	DSDAETDGQA	SGGSDSGDWI	FTIREKDPKN	LENGALQPSD	
259	LKEFVEACLN	KEPSFRPTAK	ELLKHKFILR	NAKKTSYLTE	LIDRYKRWKA	EQSHDDSSSE	DSDAETDGQA	SGGSDSGDWI	FTIREKDPKN	LENGALQPSD	
224											
601	LDRNKMKDIP	KRPFSQCLST	IISPLFAELK	EKSQACGGNL	GSIEELRGAI	YLAEEACPGI	SDTMVAQLVQ	RLQRYSLSGG	GTSSHKGGRA	DPAFLYKVV.	
359	LDRNKMKDIP	KRPFSQCLST	IISPLFAELK	EKSQACGGNL	GSIEELRGAI	YLAEEACPGI	SDTMVAQLVQ	RLQRYSLSGG	GTSSH		

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



Chevoyn Joseph, Director, Quality

Date: 08/Feb/2024

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