

Certificate of Analysis

MAP3K11 (MLK3), 100 µg

Mitogen Activated Protein Kinase Kinase Kinase 11, GST-tagged

ThermoFisher
SCIENTIFIC

Part Number: PR6962A

Lot Number: 2382850E

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. Activated *in-vitro* via auto-phosphorylation.

Specific Activity:

86 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 8.33 µg/mL.

Concentration:

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

Calculated **1,170 nM**.

Aliases:

MLK3, SPRK

Storage and Handling:

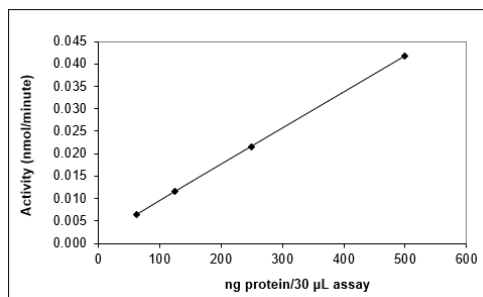
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10 µg and 20 µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below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

MAP3K11 (MLK3) 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:

MAP3K11 (MLK3) 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, 500 µg/mL myelin basic protein (MBP) and trace [³²P]-γ-ATP for 10 minutes at 30°C.

Gel Information for MAP3K11 (MLK3)

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

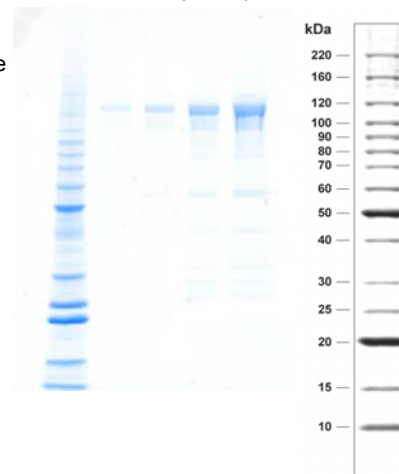
Lane 1: Invitrogen™ BenchMark™ Protein Ladder (Catalog #: 10747-012).

Lane 2: 0.3 µg MAP3K11 (MLK3)

Lane 3: 0.6 µg MAP3K11 (MLK3)

Lane 4: 1.5 µg MAP3K11 (MLK3)

Lane 5: 3.0 µg MAP3K11 (MLK3)



Purity:

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

Molecular Weight:

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

Mass Spectrometry:

MAP3K11 (MLK3) was subjected to proteolytic digest followed by mass spec analysis. The resulting MS/MS data verified MAP3K11 (MLK3) identity by comparison against the amino acid sequence(s) of the recombinant protein.

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_002410.1

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 MAP3K11
1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	NP_002410.1
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSKYIA	
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIQID	KYLKSSKYIA	
1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
201	WPLQGQWATF	GGGDHPPKSD	LVPR								
201	WPLQGQWATF	GGGDHPPKSD	LVPRHNTSL	YKKAGTMEPL	KSLFLKSPLG	SWNGSGSGGG	GGGGGGRPEG	SPKAAGYANP	VWTALFDYEP	SGQDELALRK	
1	-----	-----	-----	-----MEPL	KSLFLKSPLG	SWNGSGSGGG	GGGGGGRPEG	SPKAAGYANP	VWTALFDYEP	SGQDELALRK	
224											
301	GDRVEVLSRD	AAISGDEGWW	AGQVGGQVGI	FPSNYVSRGG	GPPPCEVASF	QELRLEEIVG	IGGFGKVYRG	SWRGELVAVK	AARQDPDEDI	SVTAESVRQE	
65	GDRVEVLSRD	AAISGDEGWW	AGQVGGQVGI	FPSNYVSRGG	GPPPCEVASF	QELRLEEIVG	IGGFGKVYRG	SWRGELVAVK	AARQDPDEDI	SVTAESVRQE	
224											
401	ARLFAMLAHP	NIIALKAVCL	EEPNCCLVME	YAAGGPLSRA	LAGRRVPPHV	LVNWAQVIAR	GMHYLHCEAL	VPVIHRDLKS	NNILLQPIE	SDDMEHKTLC	
165	ARLFAMLAHP	NIIALKAVCL	EEPNCCLVME	YAAGGPLSRA	LAGRRVPPHV	LVNWAQVIAR	GMHYLHCEAL	VPVIHRDLKS	NNILLQPIE	SDDMEHKTLC	
224											
501	ITDFGLAREW	HKTTQMSAAG	TYAWMAPEVI	KASTFSKGS	VWSFGVLLWE	LLTGEVPYRG	IDCLAVAYGV	AVNKLTLPI	STCEPFAQL	MADCWAQDPH	
265	ITDFGLAREW	HKTTQMSAAG	TYAWMAPEVI	KASTFSKGS	VWSFGVLLWE	LLTGEVPYRG	IDCLAVAYGV	AVNKLTLPI	STCEPFAQL	MADCWAQDPH	
224											
601	RRPDFASILQ	QLEALEAQLV	REMPRDSFHS	MQEGWKREIQ	GLFDELRAKE	KELLSREEEL	TRAAREQRSQ	AEQLRRREHL	LAQWELEVFE	RELTLLQLQV	
365	RRPDFASILQ	QLEALEAQLV	REMPRDSFHS	MQEGWKREIQ	GLFDELRAKE	KELLSREEEL	TRAAREQRSQ	AEQLRRREHL	LAQWELEVFE	RELTLLQLQV	
224											
701	DRERPHVRRR	RGTFKRSLR	ARDGGERISM	PLDFKHRITV	QASPLDRRR	NVFEVPGDS	PTFPRFRAIQ	LEPAEPQAW	GRQSPRRLED	SSNGERRACW	
465	DRERPHVRRR	RGTFKRSLR	ARDGGERISM	PLDFKHRITV	QASPLDRRR	NVFEVPGDS	PTFPRFRAIQ	LEPAEPQAW	GRQSPRRLED	SSNGERRACW	
224											
801	AWGPSSPKPG	EAQNGRRRSR	MDEATWYLD	DDSSPLGSP	TPPALNGNP	RPSLEPEEPK	RPVPAERGSS	SGTPKLIQRA	LLRG TALLAS	LGLGRDLQPP	
565	AWGPSSPKPG	EAQNGRRRSR	MDEATWYLD	DDSSPLGSP	TPPALNGNP	RPSLEPEEPK	RPVPAERGSS	SGTPKLIQRA	LLRG TALLAS	LGLGRDLQPP	
224											
901	GGPGRGES	PTTPPTPTPA	PCPTEPPSP	LICFSLKTPD	SPPTAPALL	DLGIPVGQRS	AKSPRREEEP	RGTVSPPPG	TSRSAPGTPG	TPRSPPLGLI	
665	GGPGRGES	PTTPPTPTPA	PCPTEPPSP	LICFSLKTPD	SPPTAPALL	DLGIPVGQRS	AKSPRREEEP	RGTVSPPPG	TSRSAPGTPG	TPRSPPLGLI	
224											
1001	SRPRPSPLRS	RIDPWSFVSA	GPRPSPLPSP	QAPRRAPWT	LFPDSDPFWD	SPPANPFQGG	PQDCRAQTKD	MGAQAPWVPE	AGP		
765	SRPRPSPLRS	RIDPWSFVSA	GPRPSPLPSP	QAPRRAPWT	LFPDSDPFWD	SPPANPFQGG	PQDCRAQTKD	MGAQAPWVPE	AGP		

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



Chevoyn Joseph, Director, Quality

Date: 06/Dec/2021

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