

ProQinase™ MEKK2

mitogen-activated protein kinase kinase kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: MAP3K2

Synonyms: MAPKKK2, MEKK2B

Product No.: 0000-0000-1

Lot: 000

Description: Human MEKK2, full length, amino acids M₁-H₆₁₉ (as in [NCBI/Protein](#) entry NP_006600.3), N-terminal GST-HIS₆ fusion protein with a Thrombin and 3C cleavage site, expressed in Sf9 insect cells

Product identity: MEKK2 Lot 016, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 100450 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.354 µg/µl

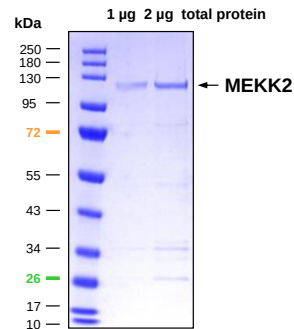
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

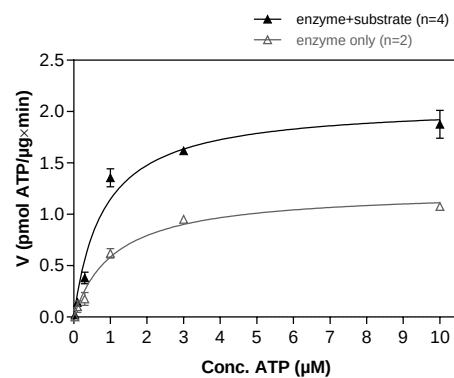
Specific kinase activity (P_i transfer): 2.1 pmol/µg*min

ATP-K_M: 0.81 µM

MEKK2 Lot 016:
Coomassie stain



MEKK2 Lot 016:
Determination of V_{max} and K_M value for ATP



- Assay conditions:
- 60 mM HEPES-NaOH, pH 7.5
- 3 mM MgCl₂
- 3 mM MnCl₂
- 3 µM Na-orthovanadate
- 1.2 mM DTT
- 50 µg/ml PEG_{20,000}
- ATP (variable)
- Substrate: Casein 10 µg/ml
- Kinase: 2 µg/ml

Assay technology:
Radiometric filter binding assay
MSFC membrane (96 well plate, Millipore)

Recombinant Proteins

Sequence information

GST-MEKK2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARDSLEV	LFQGPLAMDD	QQALNSIMQD	LAVLHKASRP	ALSLQETRKA	300
301	KSSSPKKQND	VRVKFEHRGE	KRILQFPRPV	KLEDLSKAK	IAFGQSMDLH	YTNNELVIPL	360
361	TTQDDLDKAV	ELLDRIHMK	SLKILLVING	STQATNLEPL	PSLEDLDNTV	FGAERKKRLS	420
421	IIGPTSRDRS	SPPPGYIPDE	LHQVARNGSF	TSINSEGEFI	PESMDQMLDP	LSLSSPENSG	480
481	SGSCPSLDSP	LDGESYPKSR	MPRAQSYPDN	HQEFSDYDNP	IFEKFGKGGT	YPRRYHVSYP	540
541	HQEYNDGRKT	FPRARRTQGT	SLRSPVSFSP	TDHSLSTSSG	SSIFTPEYDD	SRIRRRGSDI	600
601	DNPTLTVMID	SPPSRSPRAP	TNWRLGKLLG	QGAFGRVYLC	YDVTGRELAL	VKQVQFDPDS	660
661	PETSKEVNAL	ECEIQLLKNL	LHERIVQYYG	CLRDPQEKTL	SIFMEYMPGG	SIKDQLKAYG	720
721	ALTENVTRKY	TRQILEGVHY	LHSNMIVHRD	IKGANILRDS	TGNVKLGDFG	ASKRLQTICL	780
781	SGTGMKSVTG	TPYWMSPEVI	SGEGYGRKAD	IWSVACTVVE	MLTEKPPWAE	FEAMAAIFKI	840
841	ATQPTNPKLP	PHVSDYTRDF	LKRIFVEAKL	RPSADELLRH	MFVHYH		900

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site Green: 3C cleavage site blue: MEKK2

MEKK2 wt ¹ Amino Acid Sequence							
1	MDDQQALNSI	MQDLAVLHKA	SRPALSLQET	RKAKSSSPKK	QNDVRVKFEH	RGEKRILQFP	60
61	RPVKLEDLRS	KAKIAFGQSM	DLHYTNNELV	IPLTTQDDLD	KAVELLDLSI	HMKSLKILLV	120
121	INGSTQATNL	EPLPSLEDLD	NTVFGAERKK	RLSIIGPTSR	DRSSPPPGYI	PDELHQVARN	180
181	GSFTSINSEG	EFIPESMDQM	LDPLSLSSPE	NSGSGSCPSL	DSPLDGESYP	KSRMPRAQSY	240
241	PDNHQEFSDY	DNPIFEKFGK	GGTYPRRYHV	SYHHQYNDG	RKTFFPRARRT	QGTSLRSPVS	300
301	FSPTDHSLSL	SSGSSIFTPE	YDDSRIRRRG	SDIDNPTLTV	MDISPPSRSP	RAPTNNWRLGK	360
361	LLGQGAFGRV	YLCYDVTGR	ELAVKQVQFD	PDSPETSKEV	NALECEIQLL	KNLLHERIVQ	420
421	YYGLRDPQE	KTLSIFMEYM	PGGSIKDQLK	AYGALTENVT	RKYTRQILEG	VHYLHSNMIV	480
481	HRDIKGANIL	RDSTGNVKLG	DFGASKRLQT	ICLSGTGMKS	VTGTPYWMS	EVISGEGYGR	540
541	KADIWSVACT	VVEMLTEKPP	WAEFEAMAAI	FKIATQPTNP	KLPPhVSDYT	RDFLKRIFFE	600
601	AKLRPSADEL	LRHMFVHYH					660

blue: MEKK2 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_006600.3

Recombinant Proteins