

ProQinase™ MEK1 (non activated)

mitogen-activated protein kinase kinase 1

Recombinant Human Protein Kinase

HGNC Symbol: MAP2K1

Synonyms: PRKMK1, MAP2K1, MKK1

Product No.: 0550-0000-1

Lot: 003

Description: Human MEK1, full length, amino acids M₁-V₃₉₃ (as in [NCBI/Protein](#) entry NP_002746.1), N-terminal HIS₆ fusion protein with a Thrombin and TEV cleavage site, expressed in Sf9 insect cells

Product identity: MEK1 Lot 003, was confirmed as MEK1 by MEK1 specific Western blotting

Theoretical MW_{Fusion Protein}: 48,061 Da

Expression host: Sf9 insect cells

Purification: Immobilized Metal 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, 20 % glycerol

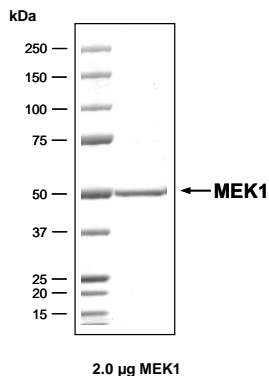
Storage temperature: -80°C

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

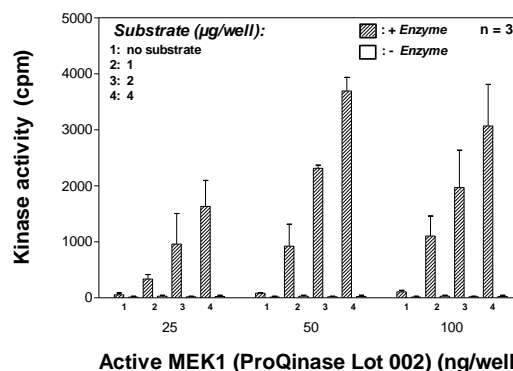
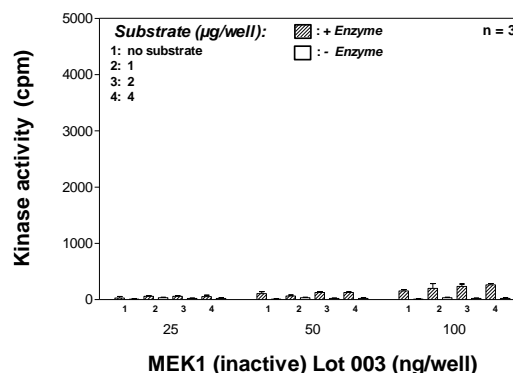
Protein concentration: 0.594 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

MEK1 (non activated) Lot 003:

Coomassie stain



Kinase activity MEK1 (inactive) vs active MEK1:



³³PanQinase® 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}
- 1 µM ATP (800,000 cpm ³³P-γ-ATP)
- Substrate: ERK2 K54R
- Recombinant MEK1 (inactive) or active MEK1 (activated by B-RAF)

This product was manufactured at Reaction Biology in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals.
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HIS-MEK1 Recombinant Fusion Protein Amino Acid Sequence													
1	MSPIDPMG	HH	HHH	GRRRAS	VAAGI	LVPRG	SPGLDGIYAR	TENLYFQ	GAM	I	KKKPTPIQL	60	
61	NPAPDGS	AVN	GTSSA	ETNLE	ALQK	LEELE	LDEQQRK	LE	AFLTQ	KQKVG	ELKDDDFEKI	120	
121	SELGAGN	GGV	VFKV	SHKPSG	LVMAR	KLIHL	EIKPAIR	QI	IRELQ	VLHEC	NSPYIVGFY	180	
181	AFYSDG	EISI	CMEHM	DGGS	L	DQVL	KKAGRI	PEQIL	GK	VSI	AVIKGLTYLR	EKKIMHRDV	240
241	KPSNIL	VNSR	GEIK	LCDFGV	SGQL	LIDSMAN	SFVG	TRS	SYMS	PERLQ	GTHYS	VQSDIWSMGL	300
301	SLVEMA	VGRY	PIPP	DAKEL	ELMFG	CQVEG	DAAET	PPRPR	TPGR	PLSSY	MDSRPPMAIF	360	
361	ELLDYI	VNEP	PPKL	PSGVFS	LEFQ	DFVNC	LIKN	PAERAD	LKQL	MVHAFI	KRSDAEEVDF	420	
421	AGWLC	STIGL	NQP	STPT	HAA	GV						480	

Red: HIS6-tag Pink: Thrombin cleavage site Green: TEV cleavage site blue: MEK1 boxed: variation from RefSeq

MEK1 wt ¹ Amino Acid Sequence													
1	MP	KKKPTPIQ	LNPAPDGS	AVN	NGTSSA	ETNLE	EALQK	LEEL	ELDEQ	QRKRL	EAF	LTQKQKV	60
61	GEL	KDDDFEK	I	SELGAGNGG	VVFKV	SHKPS	GLVMAR	KLIH	LEIK	PAIRNQ	I	IRELQVLHE	120
121	CNS	PIVGFY	GAFYSDG	EIS	ICMEHM	DGGS	LDQVL	KKAGR	IPEQ	ILGKVS	I	AVIKGLTYL	180
181	REK	HIMHRD	VKPSNIL	VNS	RGEIK	LCDFG	VSGQL	LIDSM	NSFV	GTRSYM	S	PERLQGTHY	240
241	SVQ	SDIWSMG	LSLVEMA	VGR	YPIPP	DAKE	LELMFG	CQVE	GDAE	T	PPRP	RTPGRPLSSY	300
301	GMD	SRPPMAI	FELLDYI	VNE	PPPKL	PSGVF	SLEFQ	DFVNC	CLIK	NPAERA	DL	KQLMVHAF	360
361	IKR	SDAEEVD	FAGWLC	STIG	LNQP	STPT	HAA	AGV				420	

blue: MEK1 sequence expressed in recombinant protein Red: variant in recombinant protein

¹[NCBI/Protein](#) accession number NP_002746.1