

Certificate of Analysis



MKK7 (non activated)

mitogen-activated protein kinase kinase 7

Recombinant Human Protein Kinase

HGNC Symbol: MAP2K7

Synonyms: MAPKK7, MEK7, PRKMK7

Product No.: 0689-0000-1

Lot: 001

Description: Human MKK7, full length, amino acids M₁-R₄₁₉ (as in NCBI/Protein entry NP_660186.1), non activated, N-terminal HIS6- fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Theoretical MW_{Protein}: 51,601 Da

Expression: Baculovirus infected Sf9 cells

Activation: No special measures were taken to activate this kinase

Purification: Immobilized Metal Affinity Chromatography

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

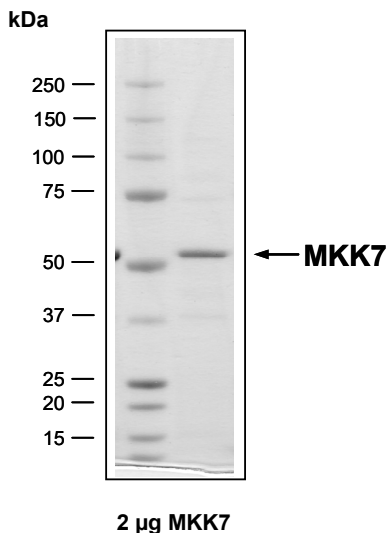
Storage temperature: -80°C

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!

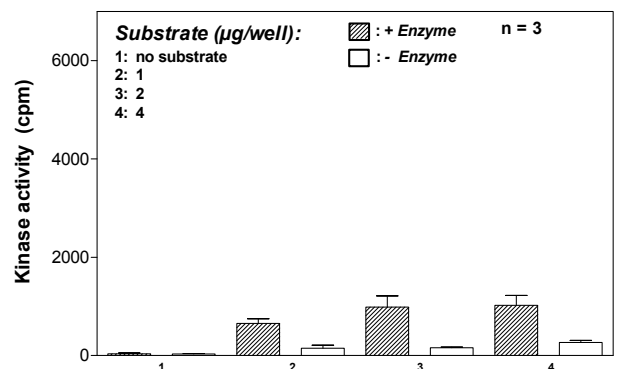
Protein concentration: 1.130 µg/µl

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

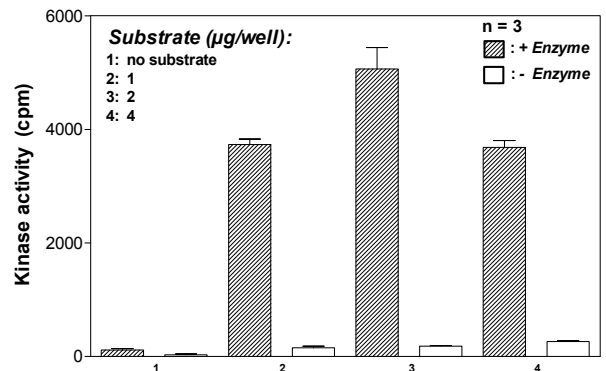
MKK7 (non activated) Lot 001:
Coomassie stain



Kinase activity
MKK7 (non activated) vs MKK7 (activated):



MKK7 (non activated) Lot 001



MKK7 (activated)

Final assay concentrations:

- 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
- Substrate: JNK1 K55R/K56R [0/20/40/80µg/ml]
- Kinase: MKK7 (non activated) or MKK7 (activated) [1µg/ml]

Assay: ³³PanQinase® Assay

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MKK7 Recombinant Fusion Protein Amino Acid Sequence							
1	MG	HHHHHH	GR	RRASVAAGIL	VPRGS	PGLDG IYARGIQASM AASSLEQKLS RLEAKLKQEN	60
61	REARRRIDLN	LDISPQRPRP	TLQLPLANDG	GSRSPSSSES	PQHPTPPARP	RHMLGLPSTL	120
121	FTPRSMESIE	IDQKLQEIMK	QTGYLTIGGQ	RYQAEINDLE	NLGEMSGTC	GQVWKMFRK	180
181	TGHVIAVKQM	RRSGNKEENK	RILMDLDVVL	KSHDCPYIVQ	CFGTFITNTD	VFIAMELMGT	240
241	CAEKLKRMQ	GPIPERILGK	MTVAIVKALY	YLKEKHGVIH	RDVKPSNILL	DERGQIKLCD	300
301	FGISGRLVDS	KAKTRSAGCA	AYMAPERIDP	PDPTKPDYDI	RADVWSLGIS	LVELATGQFP	360
361	YKNCKTDFEV	LTKVLQEEPP	LLPGHMGFSG	DFQSFVKDCL	TKDHRKRPKY	NKLEHSFIK	420
421	RYETLEVDVA	SWFKDVMAKT	ESPRTSGVLS	QPHLPFFR			480

Red: HIS6 tag Pink: Thrombin cleavage site blue: MKK7

MKK7 wt ¹ Amino Acid Sequence							
1	MAASSLEQKL	SRLEAKLKQE	NREARRRIDL	NLDISPQRPR	PTLQLPLAND	GGSRSPSSSES	60
61	SPQHPTPPAR	PRHMLGLPST	LFTPRSMESI	EIDQKLQEIM	KQTGYLTIGG	QRYQAEINDL	120
121	ENLGEMSGT	CGQVWKMFR	KTGHVIAVKQ	MRRSGNKEEN	KRILMDLDVV	LKSHDCPYIV	180
181	QCFGTFITNT	DVFIAMELMG	TCAEKLKRM	QGPIPERILG	KMTVAIVKAL	YYLKEKHGVI	240
241	HRDVKPSNIL	LDERGQIKLC	DFGISGRLVD	SKAKTRSAGC	AAYMAPERID	PPDPTKPDYD	300
301	IRADVWSLGI	SLVELATGQF	PYKNCKTDFE	VLTAKVLQEEP	PLLPGHMGFS	GDFQSFVKDC	360
361	LTKDHRKRPK	YNKLEHSFI	KRYETLEVDV	ASWFKDVMAK	TESPRTSGVL	SQPHLPFFR	420

blue: MKK7 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_660186.1