

ProQinase™ MAPKAPK5

MAPK activated protein kinase 5

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPKAPK5

Synonyms: PRAK, MK5

Product No.: 0712-0000-1

Lot: 005

Description: Human MAPKAPK5, full length, amino acids M₁-Q₄₇₁ (as in [NCBI/Protein](#) entry NP_003659.2), activated, untagged, expressed in E.coli

Product identity: MAPKAPK5 Lot 005, was confirmed as MAPKAPK5 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 54161 Da

Expression host: E.coli

Purification: Immobilized Metal Affinity Chromatography

Activation: With MKK6-SDTD/p38-alpha

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 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.772 µg/µl

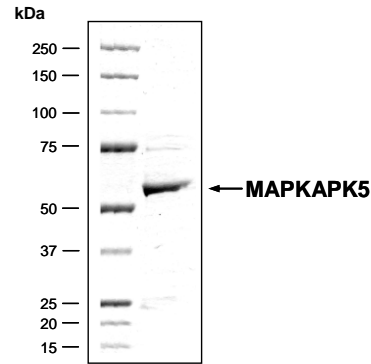
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 11 pmol/µg x min

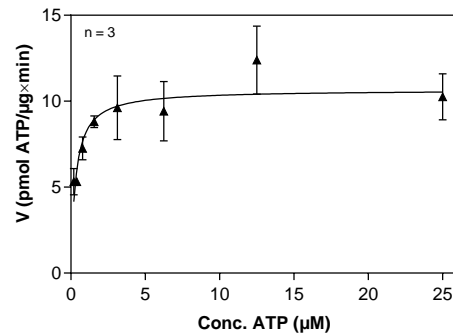
ATP-K_M: 0.31 µM

MAPKAPK5 Lot 005:
Coomassie stain



2.0 µg MAPKAPK5

MAPKAPK5 Lot 005:
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: RBER-CHKtide 40 µg/ml
 - Kinase: 0.4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Recombinant Proteins

Sequence information

MAPKAPK5 Recombinant Fusion Protein Amino Acid Sequence							
1	GAMSEESDMD	KAIKETSILE	EYSINWTQKL	GAGISGPVRV	CVKKSTQERF	ALKILLDRPK	60
61	ARNEVRLHMM	CATHPNIVQI	IEVFANSVQF	PHSSPRARL	LIVMEMMEGG	ELFHRSQHR	120
121	HFTEKQASQV	TKQIALALRH	CHLLNIAHRD	LKPENLLFKD	NSLDAPVKLC	DFGFAKIDQG	180
181	DLMTPQFTPY	YVAPQVLEAQ	RRHQKEKSGI	IPTSPTPYTY	NKSCDLWSLG	VIIYVMLCGY	240
241	PPFYSKHHSR	TIPKDMRRKI	MTGSFEFPEE	EWSQISEMAK	DVVRKLLKVK	PEERLTIEGV	300
301	LDHPWLNSTE	ALDNVLPQAQ	IMMDKAVVAG	IQQAHAEQLA	NMRIQDLKVS	LKPLHSVNNP	360
361	ILRKRKLLGT	KPKDSVYIHD	HENGAEDSNV	ALEKLRDVIA	QCILPQAGEN	EDEKLNEVMQ	420
421	EAWKYNRECK	LLRDTLQSF	WNGRGFTDKV	DRLKLAIEVK	QVIEEQTTSH	ESQ	480

1-2: legacy from tag cleavage blue: MAPKAPK5

MAPKAPK5 wt ¹ Amino Acid Sequence							
1	MSEESDMDKA	IKETSILEEY	SINWTQKLGA	GISGPVRVCV	KKSTQERFAL	KILLDRPKAR	60
61	NEVRLHMMCA	THPNIVQIIE	VFANSVQFPH	ESSPRARLLI	VMEMMEGGEL	FHRISQHRHF	120
121	TEKQASQVTK	QIALALRHCH	LLNIAHRDLK	PENLLFKDNS	LDAPVKLCDF	GFAKIDQGDL	180
181	MTPQFTPYVY	APQVLEAQR	HQKEKSGIIP	TSPTPYTYNK	SCDLWSLGVI	IYVMLCGYPP	240
241	FYSKHHSRTI	PKDMRRKIMT	GSFEFPEEEW	SQISEMAKDV	VRKLLKVKPE	ERLTIEGVLD	300
301	HPWLNSTEAL	DNVLPQAQLM	MDKAVVAGIQ	QAHAEQLANM	RIQDLKVSJK	PLHSVNNPIL	360
361	RKRKLLGTRK	KDSVYIHDHE	NGAEDSNVAL	EKLRDVIAQC	ILPQAGENED	EKLNEVMQEA	420
421	WKYNRECKLL	RDTLQSFQSW	GRGFTDKVDR	LKLAIEVKQV	IEEQTTSHES	Q	480

blue: MAPKAPK5 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_003659.2