

Certificate of Analysis



MAPKAPK5 (non activated)

mitogen-activated protein kinase-activated protein kinase 5

Recombinant Human Protein Kinase

HGNC Symbol: MAPKAPK5

Synonyms: PRAK

Product No.: 0380-0000-1

Lot: 001

Description: Human MAPKAPK5
Amino acids M₁-Q₄₇₃ (as in NCBI/Protein entry NP_620777.1)*, N-terminally fused to GST-HIS₆-Thrombin cleavage site

Product identity: MAPKAPK5, Lot 001, was confirmed as MAPKAPK5 by specific Western Blotting using anti MAPKAPK5 antibody

Theoretical MW_{Fusion Protein}: 84,116 Da

Expression: Baculovirus infected Sf9 cells

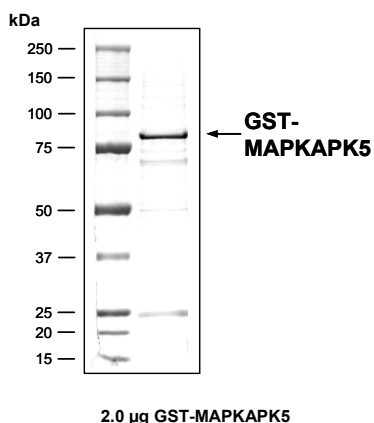
Purification: One-step affinity purification using GSH-agarose

Storage buffer: 50 mM Tris-HCl, pH 8.0;
100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20% glycerol

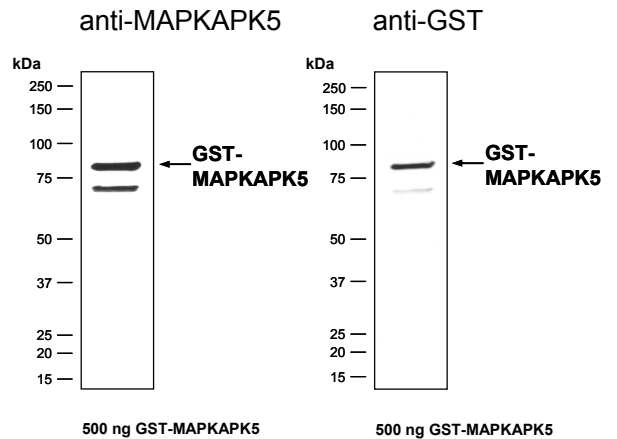
Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

Protein concentration: 0.113 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

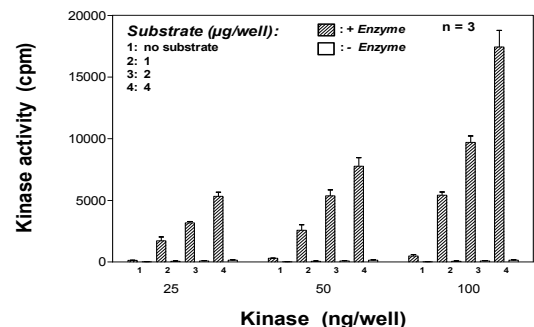
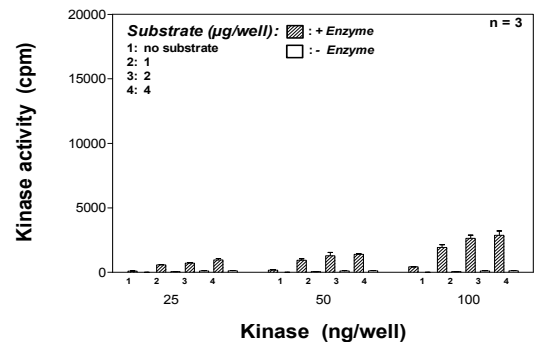
Coomassie stain:



MAPKAPK5 Lot 001: Western blot analysis



Kinase activity MAPKAPK5 (not activated) vs active MAPKAPK5:



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 (798,000 cpm ³³P-γ-ATP)
- Substrate (variable): ATF2
- Recombinant MAPKAPK5 (not activated) or active MAPKAPK5 (variable)

Assay: ³³PanQinase® Assay

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MAPKAPK5

Product No.: 0380-0000-1

| MAPKAPK5 Recombinant Fusion Protein Amino Acid Sequence | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|-----|
| 1 | MSPILGYWKI | KGLVQPTRL | LEYLEEKYEE | HLYERDEGDK | WRNKKFELGL | EFPNLPYYID | 60 |
| 61 | GDVKLTQSM | IIRYIADKHN | MLGGCPKERA | EISMLEGAVL | DIRYGVSR | YSKDFETLKV | 120 |
| 121 | DFLSKLP | KMFEDRLCHK | TYLNGDHVTH | PDFMLYDALD | VVLYMDPMCL | DAFPKLVCFK | 180 |
| 181 | KRIEAI | KYLKSSKYIA | WPLQGWQATF | GGGDHPPKSD | PMGHHHHH | RRRASVAAGI | 240 |
| 241 | LVPRGSPGLD | GIYARGIQAS | MSEESMDKA | IKETSILEEY | SINWTQKLG | GISGPVRVCV | 300 |
| 301 | KKSTQERFAL | KILLDRPKAR | NEVRLHMMCA | THPNIVQIIE | VFANSVQFPH | ESSPRARLLI | 360 |
| 361 | VMEMMEGGEL | FHRISQHRHF | TEKQASQVTK | QIALALRHCH | LLNIAHRDLK | PENLLFKDNS | 420 |
| 421 | LDAPVKLCDF | GFAKIDQGDL | MTPQFTPYV | APQVLEAQR | HQKEKSGIIP | TSPTPYTYNK | 480 |
| 481 | SCDLWSLGI | IYVMLCGYPP | FYSKHHSRTI | PKDMRRKIMT | GSFEFPEE | SQISEMAKDV | 540 |
| 541 | VRKLLKVKPE | ERLTIEGVLD | HPWLNSTEAL | DNVLP | MDKAVVAGIQ | QAHAEQLANM | 600 |
| 601 | RIQDLK | PLHSVNNPIL | RKRKLLG | KDSVYIHDHE | NGAEDSNVAL | EKL | 660 |
| 661 | ILPQAGKGEN | EDEKLNEVMQ | EAWKYNRECK | LLRDTLQ | SFNS | WNGRGFTDKV | 720 |
| 721 | QVIEEQTTSH | ESQ | | | | | 780 |

1-218: GST Red: HIS6-tag Pink: Thrombin blue: MAPKAPK5

| MAPKAPK5 wt ¹ amino acid sequence | | | | | | | |
|--|------------|------------|------------|------------|------------|------------|-----|
| 1 | MSEESMDKA | IKETSILEEY | SINWTQKLG | GISGPVRVCV | KKSTQERFAL | KILLDRPKAR | 60 |
| 61 | NEVRLHMMCA | THPNIVQIIE | VFANSVQFPH | ESSPRARLLI | VMEMMEGGEL | FHRISQHRHF | 120 |
| 121 | TEKQASQVTK | QIALALRHCH | LLNIAHRDLK | PENLLFKDNS | LDAPVKLCDF | GFAKIDQGDL | 180 |
| 181 | MTPQFTPYV | APQVLEAQR | HQKEKSGIIP | TSPTPYTYNK | SCDLWSLGI | IYVMLCGYPP | 240 |
| 241 | FYSKHHSRTI | PKDMRRKIMT | GSFEFPEE | SQISEMAKDV | VRKLLKVKPE | ERLTIEGVLD | 300 |
| 301 | HPWLNSTEAL | DNVLP | MDKAVVAGIQ | QAHAEQLANM | RIQDLK | PLHSVNNPIL | 360 |
| 361 | RKRKLLG | KDSVYIHDHE | NGAEDSNVAL | EKL | ILPQAGKGEN | EDEKLNEVMQ | 420 |
| 421 | EAWKYNRECK | LLRDTLQ | SFNS | WNGRGFTDKV | DRLKLA | EIVK | 480 |

blue: MAPKAPK5 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_620777.1