

PKC-delta

protein kinase C delta

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCD

Synonyms: MAY1; nPKC-delta

Product No.: 0232-0000-1

Lot: 004

Description: Human PKC-delta, full length, amino acids M₁-E₆₇₅ (as in NCBI/Protein entry [NCBI/Protein](#)), N-terminal GST-HIS₆-fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PKC-delta Lot 004, was confirmed as PKC-delta by specific Western Blotting

Theoretical MW_{Fusion Protein}: 111,765 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM TRIS-HCl pH 8.0, 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: 0.162 µg/µl

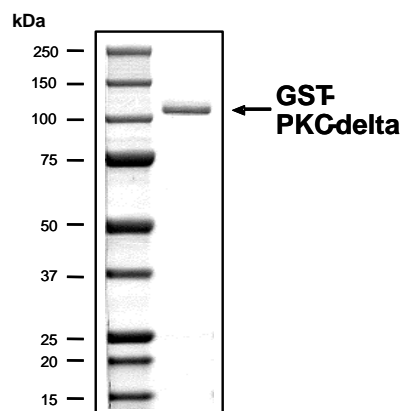
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 242 pmol/µg × min

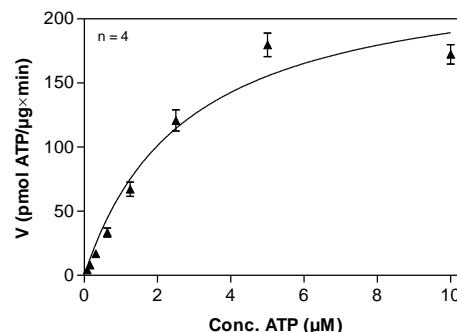
ATP-K_M: 2.8 µM

PKC-delta Lot 004: Coomassie stain



2.0 µg GST-PKC-delta

PKC-delta Lot 004: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- 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: PKC-derived peptide 20 µg/ml
 - Kinase: 2 µg/ml
- Filter binding assay
- MSPH membrane (Millipore)

Additional assay technology:

PKC-delta Lot 004 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega. ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details.

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PKC-delta

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| GST-PKC-delta Recombinant Fusion Protein Amino Acid Sequence | | | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| 1 | MSPILGYWKI | KGLVQPTRL | LEYLEEKYEE | HLIERDEGDK | WRNKKFELGL | EFPNLPYYID | 60 |
| 61 | GDVKLTQSMA | IIRYIADKHN | MLGGCPKERA | EISMLEGAVL | DIRYGVSRIA | YSKDFETLKV | 120 |
| 121 | DFLSKLPPEML | KMFEDRLCHK | TYLNGDHVTH | PDFMLYDALD | VVLYMDPMCL | DAFPKLVCFK | 180 |
| 181 | KRIEAIPOID | KYLKSSKYIA | WPLQGWQATF | GGGDHPPKSD | PMG HHHHHG | RRRASVAAGI | 240 |
| 241 | LVPRGSPGLD | GICSRNSPLT | MAPFLRIAFN | SYELGSLQAE | DEANQPFCAV | KMKEALSTER | 300 |
| 301 | GKTLVQKKPT | MYPEWKSTFD | AHIYEGRVIQ | IVLMRAAEEP | VSEVTGVSV | LAERCKKNG | 360 |
| 361 | KAEFWLDLQP | QAKVLMSVQY | FLEDVDCQKS | MRSEDEAKFP | TMNRRGAIKQ | AKIHYIKNHE | 420 |
| 421 | FIATFFGQPT | FCSVCKDFVW | GLNKQGYKCR | QCNAAIHKKC | IDKIIGRCTG | TAANSRDTIF | 480 |
| 481 | QKERFNIDMP | HRFKVHNYMS | PTFCDHCGSL | LWGLVKQGLK | CEDCGMNVHH | KCREKVANLC | 540 |
| 541 | GINQKLLAEA | LNQVTQRASR | RSDSASSEPV | GIYQGFEEKT | GVAGEDMQDN | SGTYGKIWEG | 600 |
| 601 | SSKCINNFIF | FHKVLGKGSF | GKVLGELKG | RGEYFAIKAL | KKDVVLIDD | VECTMVEKRV | 660 |
| 661 | LTLAENPFL | THLICTFQTK | LDRDGHKIA | DFGMCKENIF | GESRASTFCG | TPDYIAPEIL | 720 |
| 721 | LQFLHSGKII | YRDLKLDNVL | LDRDGHKIA | DFGMCKENIF | GESRASTFCG | TPDYIAPEIL | 780 |
| 781 | QGLKYTFSVD | WWSFGVLLYE | MLIGQSPFHG | DDEDEFESI | RVDTPHYPRW | ITKESKDILE | 840 |
| 841 | KLFEPEPTKR | LGVTGNIKIH | PFFKTINWTL | LEKRRLEPPF | RPKVKSPRDY | SNFDQEFLE | 900 |
| 901 | KARLSYSDKN | LIDSMDQSAF | AGFSFVNPKE | EHLLEQGRIQ | ASMGARGRLQ | GTPGRSVPTL | 960 |
| 961 | LKRRKFSLEK | PWCSK | | | | | 1020 |

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: PKC-delta **boxed**: variation from RefSeq

| PKC-delta wt ¹ Amino Acid Sequence | | | | | | | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----|
| 1 | MAPFLRIAFN | SYELGSLQAE | DEANQPFCAV | KMKEALSTER | GKTLVQKKPT | MYPEWKSTFD | 60 |
| 61 | AHIYEGRVIQ | IVLMRAAEEP | VSEVTGVSV | LAERCKKNG | KAEFWLDLQP | QAKVLMSVQY | 120 |
| 121 | FLEDVDCQKS | MRSEDEAKFP | TMNRRGAIKQ | AKIHYIKNHE | FIATFFGQPT | FCSVCKDFVW | 180 |
| 181 | GLNKQGYKCR | QCNAAIHKKC | IDKIIGRCTG | TAANSRDTIF | QKERFNIDMP | HRFKVHNYMS | 240 |
| 241 | PTFCDHCGSL | LWGLVKQGLK | CEDCGMNVHH | KCREKVANLC | GINQKLLAEA | LNQVTQRASR | 300 |
| 301 | RSDSASSEPV | GIYQGFEEKT | GVAGEDMQDN | SGTYGKIWEG | SSKCINNFIF | FHKVLGKGSF | 360 |
| 361 | GKVLGELKG | RGEYFAIKAL | KKDVVLIDD | VECTMVEKRV | LTLAENPFL | THLICTFQTK | 420 |
| 421 | DHLFFVMEFL | NGGDLMYHIQ | DKGRFELYRA | TFYAAEIMCG | LQFLHSGKII | YRDLKLDNVL | 480 |
| 481 | LDRDGHKIA | DFGMCKENIF | GESRASTFCG | TPDYIAPEIL | QGLKYTFSVD | WWSFGVLLYE | 540 |
| 541 | MLIGQSPFHG | DDEDEFESI | RVDTPHYPRW | ITKESKDILE | KLFEPEPTKR | LGVTGNIKIH | 600 |
| 601 | PFFKTINWTL | LEKRRLEPPF | RPKVKSPRDY | SNFDQEFLE | KARLSYSDKN | LIDSMDQSAF | 660 |
| 661 | AGFSFVNPKE | EHLLE | | | | | 720 |

blue: PKC-delta sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹NCBI/Protein accession number NP_006245.2

L250P: single amino acid variation see EST sequence AW196443.1