

## ProQinase™ 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 M<sub>1</sub>-E<sub>675</sub> (as in NCBI/Protein entry [NCBI/Protein](#)), N-terminal GST-HIS<sub>6</sub>-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**<sub>Fusion Protein</sub>: 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

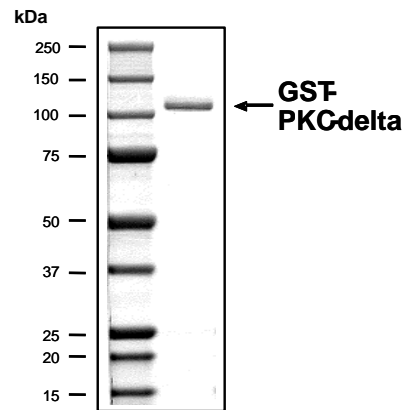
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

Specific kinase activity (P<sub>i</sub> transfer): 242 pmol/µg × min

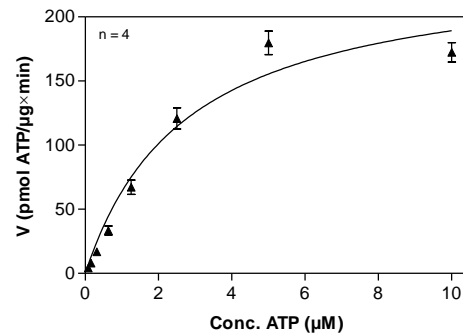
ATP-K<sub>M</sub>: 2.8 µM

### PKC-delta Lot 004: Coomassie stain



2.0 µg GST-PKC-delta

### PKC-delta Lot 004: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



### Determination of K<sub>M</sub> value & Specific activity:

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg/ml PEG<sub>20,000</sub>
  - 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 Reaction Biology 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

## ProQinase™ PKC-delta

Product No.: 0232-0000-1

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	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRNSPLT	MAPFLRIAFN	SYELGSLQAE	DEANQPFCAV	KMKEALSTER	300
301	GKTLVQKKPT	MYPEWKSTFD	AHIYEGRVIQ	IVLMRAAEEP	VSEVTGVSV	LAERCKKNG	360
361	KAEFWLDLQP	QAKVLMSVQY	FLEDVDCQKS	MRSEDEAKFP	TMNRRGAIQ	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	KKDVVLIDDD	VECTMVEKRV	660
661	LTLAENPFL	THLICTFQTK	DHLFFVMEFL	NGGDLMYHIQ	DKGRFELYRA	TFYAAEIMCG	720
721	LQFLHSGKII	YRDLKLDNVL	LDRDGHKIA	DFGMCKENIF	GESRASTFCG	TPDYIAPEIL	780
781	QGLKYTFSD	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 <sup>1</sup> Amino Acid Sequence							
1	MAPFLRIAFN	SYELGSLQAE	DEANQPFCAV	KMKEALSTER	GKTLVQKKPT	MYPEWKSTFD	60
61	AHIYEGRVIQ	IVLMRAAEEP	VSEVTGVSV	LAERCKKNG	KAEFWLDLQP	QAKVLMSVQY	120
121	FLEDVDCQKS	MRSEDEAKFP	TMNRRGAIQ	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	KKDVVLIDDD	VECTMVEKRV	LTLAENPFL	THLICTFQTK	420
421	DHLFFVMEFL	NGGDLMYHIQ	DKGRFELYRA	TFYAAEIMCG	LQFLHSGKII	YRDLKLDNVL	480
481	LDRDGHKIA	DFGMCKENIF	GESRASTFCG	TPDYIAPEIL	QGLKYTFSD	WWSFGVLLYE	540
541	MLIGQSPFHG	DDEDEFESI	RVDTPHYPRW	ITKESKDILE	KLFEPEPTKR	LGVTGNIKIH	600
601	PFFKTINWTL	LEKRRLEPPF	RPKVKSPRDY	SNFDQEFLE	KARLSYSDKN	LIDSMDQSAF	660
661	AGFSFVNPKE	EHLLE	D				720

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

<sup>1</sup>NCBI/Protein accession number NP\_006245.2

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