

## ProQinase™ PKC-mu

protein kinase D1

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKD1

Synonyms: PRKCM; PKC-MU; PKCM; PKD

Product No.: 0115-0000-1

Lot: 004

**Description:** Human PKC-mu, full length, amino acids M<sub>1</sub>-L<sub>912</sub> (as in NCBI/Protein entry NP\_002733.1), N-terminal GST-HIS<sub>6</sub> fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

**Product identity:** PKC-mu Lot 004, was confirmed as PKC-mu by mass spectroscopy LC-ESI-MS/MS (Protagen AG, Germany)

**Theoretical MW**<sub>Fusion Protein</sub>: 139,489 Da

**Expression:** Baculovirus infected Sf9 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:** 0.120 µg/µl

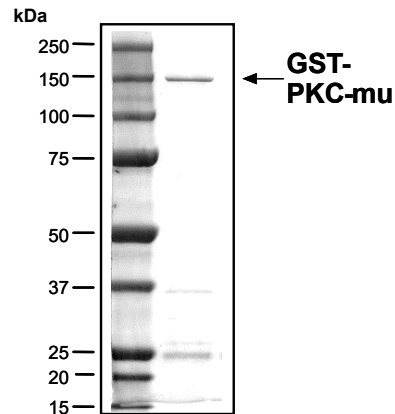
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

Specific kinase activity (P<sub>i</sub> transfer): 4.4 pmol/µg×min

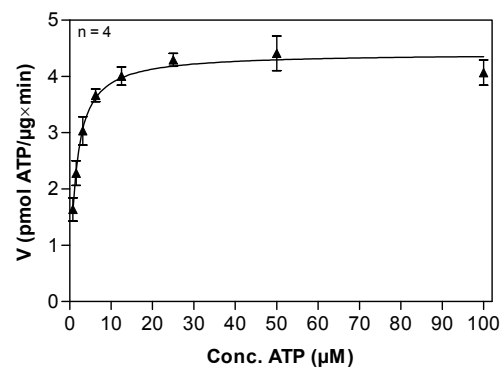
ATP-K<sub>M</sub>: 1.4 µM

**PKC-mu Lot 004:  
Coomassie stain**



2.0 µg GST-PKC-mu

**PKC-mu 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: tetra(LRRWSLG), 10 µg/ml
  - Kinase: 4 µg / ml
- Filter binding assay
  - MSFC membrane (Millipore)

**Additional assay technology:** PKC-mu Lot 004

was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details



Recombinant Proteins

# ProQinase™ PKC-mu

Product No.: 0115-0000-1

PKC-mu Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGIPFS	PPRPSPRPP	PPRPPLPIL	IPLPSPSPGT	FPESFYFPSG	300
301	LSEKEAPGSA	AAKLSCCRAA	SPRPPLPGPA	PRRAMSAPPV	LRPPSPLLPV	AAAAA	360
361	LVPGSGPGPA	PFLAPVAAPV	GGISFHLQIG	LSREPVLLLQ	DSSGDYSLAH	VREMACSIVD	420
421	QKFPEGCFYG	MYDKILLFRH	DPTSENIQL	VKAASDIQEG	DLIEVLSRS	ATFEDFQIRP	480
481	HALFVHSYRA	PAFCDHCGEM	LWGLVROGLK	CEGCLNYHK	RCAFKIPNNC	SGVRRRLSN	540
541	VSLTGVSTIR	TSSAELSTSA	PDEPLLQKSP	SESFIGREKR	SNSQSYIGRP	IHLDKILMSK	600
601	VKVPHTFVIH	SYTRPTVCQY	CKKLLKGLFR	OGLQCKDCRF	NCHKRCAPKV	PNNCLGEVTI	660
661	NGDLLSPGAE	SDVVMEEGSD	DNDSERNLGL	MDDMEEAMVQ	DAEMAMAECQ	NDSGEMQDPD	720
721	PDHEDANRTI	SPSTSNNIPL	MRVVQSVKHT	KRKSSTVMKE	GWMVHYTSKD	TLRKRHYWRL	780
781	DSKCITLQFN	DTGSRYKEI	PLSEILSLEP	VKTSALIPNG	ANPHCFEITT	ANVVYVGEN	840
841	VVNPSSSPSN	NSVLTSGVGA	DVARMWEIAI	QHALMPVIK	GSSVGTGTNL	HRDISVSISV	900
901	SNCQIQENVD	ISTVYQIFPD	EVLGSGQFGI	VYGGKHKRKTG	RDVAIKIIDK	LRFPKQESQ	960
961	LRNEVAILQN	LHHPGVVNL	CMFETPERVF	VVMEKLGDM	LEMILSSEK	RLPEHITKFL	1020
1021	ITQILVALRH	LHFKNIVHCD	LKPENVLLAS	ADPFPQVKLC	DFGFARIIGE	KSFRRSVVGT	1080
1081	PAYLAPEVLR	NKGYNRSLDM	WSVGVIYVS	LSGTFPFNED	EDIHDQIQNA	AFMYPNPWK	1140
1141	EISHEAIDLI	NNLLQVKMRK	RYSVDKTLSH	PWLQDYQTLW	DLRELECKIG	ERYITHESDD	1200
1201	LRWEKYAGEQ	RLQYPTHLIN	PSASHSDTPE	TEETEMKALG	ERSVIL		1260

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue:PKC-mu boxed: A<sub>20</sub>R

PKC-mu wt <sup>1</sup> Amino Acid Sequence							
1	MSAPPVLRPP	SPLLVA	AAAAALVPG	SGPGAPFLA	PVAAPVGGIS	FHLQIGLSRE	60
61	PVLLLDSSG	DYSLAHVREM	ACSIVDQKFP	ECGFYGMYDK	ILLFRHDPTS	ENILQLVKAA	120
121	SDIQEGDLIE	VVLSRSATFE	DFQIRPHALF	VHSYRAPAFC	DHCGEMLWGL	VRQGLKCEGC	180
181	GLNYHKRCFA	KIPNNCSGVR	RRRLSNVSLT	GVSTIRTSSA	ELSTSAPDEP	LLQKSPSESF	240
241	IGREKRSNSQ	SYIGRPIHLD	KILMSKVKVP	HTFVIHSYTR	PTVCQYCKKL	LKGLFRQGLQ	300
301	CKDCRFNCHK	RCAPKVPNNC	LGEVTINGDL	LSPGAESDVV	MEEGSDNDS	ERNLGLMDDM	360
361	EEAMVQDAEM	AMAECQNDG	EMQDPDPDHE	DANRTISPST	SNNIPLMRVV	QSVKHTKRKS	420
421	STVMKEGWMV	HYTSKDTLRK	RHYWRDLKSK	ITLQNDTGS	RYYKEIPLSE	ILSLEPVKTS	480
481	ALIPNGANPH	CFEITTANVV	YYVGENVNP	SSPSPNNSVL	TSGVGADVAR	MWEIAIQHAL	540
541	MPVIPKSSV	GTGTNLHRDI	SVSISVSNQ	IQENVDISTV	YQIFPDEVLG	SGQFGIVYGG	600
601	KHRKTGRDVA	IKIIDKLRF	TKQESQLRNE	VAILQNLHHP	GVVNLECMFE	TPERVVVM	660
661	KLHGDMLEMI	LSSEKGRLEPE	HITKFLITQI	LVALRHLHFK	NIVHCDLKPE	NVLLASADPF	720
721	PQVKLCDFGF	ARIIGEKFSR	RSVVGTPAYL	APEVLRNKG	NRSLDMWSVG	VIIYVSLSGT	780
781	FPFNEDEDIH	DQIQNAAFMY	PPNPWKEISH	EAIDLINLL	QVKMRKRYSV	DKTLSPWLQ	840
841	DYQTWLDR	LECKIGERYI	THESDDLWE	KYAGEQLQY	PTHLINPSAS	HSPTPETEET	900
901	EMKALGERVS	IL					960

blue: PKC-mu sequence expressed in fusion protein Red: variant in fusion protein

<sup>1</sup>NCBI/Protein accession number NP\_002733.1  
A<sub>20</sub>R: SNP variation see EST BF310986.1