

PKC-gamma

protein kinase C gamma

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCG

Synonyms: MGC57564; PKCC; PKCG; SCA14

Product No.: 0204-0000-1

Lot: 007

Description: Human PKC-gamma, full length, amino acids M₁-M₆₉₇ (as in [NCBI/Protein](#) entry NP_002730.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PKC-gamma Lot 007, was confirmed as PKC-gamma by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 112,289 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: 0.088 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

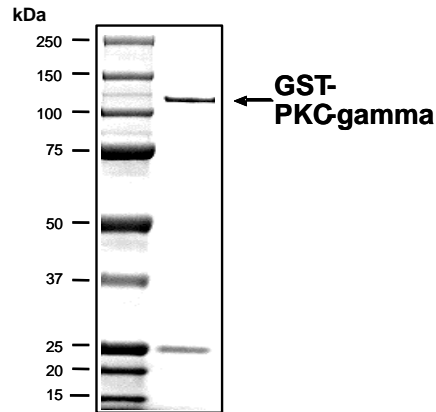
Biochemical Parameters:

Specific kinase activity (P_i transfer): 325 pmol/µg × min
ATP-K_M: 14 µM

Additional assay technology:

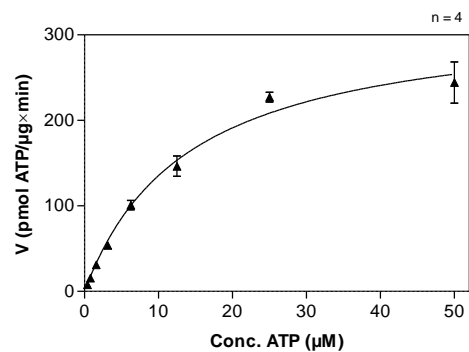
PKC-gamma Lot 007 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

PKC-gamma Lot 007: Coomassie stain



2.0 µg GST-PKC-gamma

PKC-gamma Lot 007: 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: 400 ng/ml
- Filter binding assay
MSPH membrane (Millipore)

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GST-PKC-gamma Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	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	LVPRG SPGLD	GICSSGRQCD	GYLQNSPLAM	AGLGPVGDS	EGGPRPLFCR	KGALRQKVH	300
301	EVKSHKFTAR	FFKQPTFCSH	CTDFIWGIGK	QGLQCQVCSF	VVHRRCHEFV	TFECPGAGK	360
361	PQTDDPRNKH	KFRLHSYSSP	TFCDHCGSL	YGLVHQMKC	SCCEMNVHRR	CVRSVPSLCG	420
421	VDHTERRGRL	QLEIRAPTAD	EIHVTVGEAR	NLIPMDPNGL	SDPYVKLKI	PDPRNLTKQK	480
481	TRTVNATLNP	VWNETFVFNL	KPGDVERRLS	VEVWDWDRTS	RNDFMGAMSF	GVSELLKAPV	540
541	DGWYKLLNQE	EGEYYNVPVA	DADNCSLLQK	FEACNYPLEL	YERVRMGPS	SPIPSPSPS	600
601	TDPKRCFFGA	SPGRLHISDF	SFLMVLGKGS	FGKVMLAERR	GSDELYAIKI	LKKDVIVQDD	660
661	DVDCTLVEKR	VLALGGRGPG	GRPHFLTQLH	STFQTPDRLY	FVMEYVTGGD	LMYHIQQLGK	720
721	FKEPHAAFYA	AEIAIGLFFL	HNQGIYRDL	KLDNVMLDAE	GHIKITDFGM	CKENVFPGTT	780
781	TRTFCGTPDY	IAPEIIAYQP	YGKSVDWWSF	GVLLYEMLAG	QPPFDGEDEE	ELFQAIMEQT	840
841	VTYPKLSLRE	AVAICKGFLT	KHPGKRLGSG	PDGEPTIRAH	GFFRWIDWER	LERLEIPPPF	900
901	RPRPCGRSGE	NFDKFFTRA	PALTPPDRIV	LASIDQADFQ	GFTYVNPDFV	HPDARSPTSP	960
961	VPVPV QGRIPAHWRPLLVD	PSSVPPGDLY	RLC				1020

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

PKC-gamma wt ¹ Amino Acid Sequence							
1	MAGLGPVGD	SEGGPRPLFC	RKGALRQKV	HEVKSHKFTA	RFFKQPTFCS	HCTDFIWGIG	60
61	KQGLQCQVCS	FVVHRRCHEF	VTFECPGAGK	GPQTDDPRNK	HKFRLHSYSS	PTFCDHCGSL	120
121	LYGLVHQMK	CSCCEMNVHR	RCVRSVPSLC	GVDHTERRGR	LQLEIRAPTA	DEIHVTGGEA	180
181	RNLIPMDPNG	LSDPYVKLKL	IPDPRNLTKQ	KTRTVKATLN	PVWNETFVFN	LKPGDVERRL	240
241	SVEVWDWDR	SRNDFMGAMS	FGVSELLKAP	VDGWYKLLNQ	EAGEYYNVPV	ADADNCSLLQ	300
301	KFEACNYPLE	LYERVRMGPS	SSPIPSPSPS	PTDPKRCFFG	ASPGRLHISD	FSFLMVLGKG	360
361	SFGKVMLAER	RGSDELYAIK	ILKDVIVQD	DDVDCTLVEK	RVLALGGRGP	GGRPHFLTQL	420
421	HSTFQTPDRL	YFVMEYVTGG	DLMYHIQQLG	KFKEPHAAFY	AAEIAIGLFF	LHNQGIYRD	480
481	LKLDNVMLDA	EGHIKITDFG	MCKENVFPGT	TTRTFCGTPD	YIAPEIIAYQ	PYGKSVDWWS	540
541	FGVLLYEMLA	GQPPFDGEDE	EELFQAIMEQ	TVTYPKLSLR	EAVAICKGFL	TKHPGKRLGS	600
601	GPDGEPTIRA	HGFFRWIDWE	RLERLEIPPP	FRPRPCGRSG	ENFDKFFTRA	APALTPPDRL	660
661	VLASIDQADF	QGFTYVNPDF	VHPDARSPTS	PVPVPVM			720

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

¹NCBI/Protein accession number NP_002730.1

K₂₁₆N exchange documented in EST sequence #BU165594.1

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