

PKC-epsilon

protein kinase C epsilon

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCE

Synonyms: PKCE

Product No.: 0203-0000-1

Lot: 006

Description: Human PKC-epsilon, full length, amino acids M₁-P₇₃₇ (as in [NCBI/Protein](#) entry NP_005391.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PKC-epsilon, Lot 006, was confirmed as PKC-epsilon by specific Western Blotting

Theoretical MW_{Fusion Protein}: 113,431 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, 4 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!

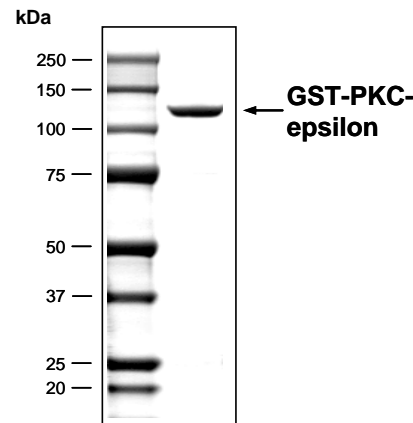
Protein concentration: 0.366 µg/µl

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

Biochemical Parameters:

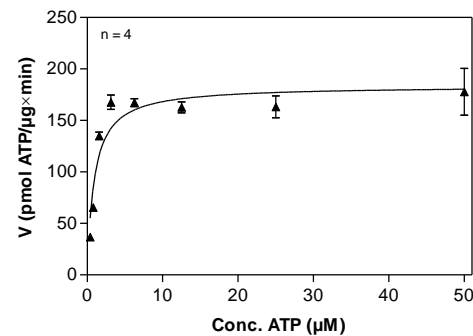
Specific kinase activity (P_i transfer): 184 pmol/µg × min
ATP-K_M: 0.9 µM

**PKC-epsilon Lot 006:
Coomassie stain**



2.0 µg GST-PKC-epsilon

**PKC-epsilon Lot 006:
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; 1 mM CaCl₂
 - 4 mM EDTA
 - 3 µM Na-orthovanadate
 - 5 µg/ml Phosphatidylserine
 - 1 µg/ml 1,2 Dioleoyl-glycerol
 - 1.2 mM DTT
 - 50 µg/ml PEG_{20,000}
 - ATP (variable)
 - Substrate: PKC-derived peptide, 10 µg / ml
 - Kinase: 1 µg / ml
- Filter binding assay
- MSPH membrane (Millipore)

Additional assay technology:

PKC-epsilon Lot 006 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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GST-PKC-epsilon 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	PMGHHHHHG	RRRASVAAGI	240
241	LVPKPSGLD	GICSIIEFV	VFNGLLKIKI	CEAVSLKPTA	WSLRHAVGPR	PQTFLLDPYI	300
301	ALNVDDSRIG	QTATKQKTNS	PAWHDEFVTD	VCNCRKIELA	VFHDAPIGYD	DFVANCTIQF	360
361	EELLQNGSRH	FEDWIDLEPE	GRVYVIDLS	GSSGEAPKDN	EERVFREMR	PRKRQGAVER	420
421	RVHQVNGHKF	MATYLRQPTY	CSHCRDFIWG	VIGKQGYQCQ	VCTCVVHKRC	HELIITKAG	480
481	LKKQETPDQV	GSQRFVSVM	HKFGIHNYKV	PTFCDHCGSL	LWGLLRQGLQ	CKVCKMNVHR	540
541	RCETNVAPNC	GVDARGIAKV	LADLGVTPDK	ITNSGQRRK	LIAGAESPQP	ASGSSPSEED	600
601	RSKSAPTSPC	DQEIKELENN	IRKALSFDNR	GEEHRAASSP	DGQLMSPGEN	GEVRQGAQR	660
661	LGLDEFNFIK	VLCGKGSFGKV	MLAELKGDKE	VYAVKVLKDD	VILQDDVDVC	TMTEKRILAL	720
721	ARKHPYLTQL	YCCFQTKDRL	FFVMEYVNGG	DLMFQIQRSR	KFDEPRSRFY	AAEVTSALMF	780
781	LHQHGVYIRD	LKLDNILLDA	EGHCKLADFG	MCKEGILNGV	TTTTFCGTPD	YIAPEILQEL	840
841	EYGPSVDWWA	LGVLMEYEMMA	GQPPFEADNE	DDLFEFILHD	DVLYPVWLSK	EAVSILKAFM	900
901	TKNPHKRLGC	VASQNGEDAI	KQHPFFKEID	WVLLQKQKIK	PPFKPRIKTK	RDVNNFDQDF	960
961	TREEPVLTIV	DEAIVKQINQ	EEFKGFSYFG	EDLMP			1020

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: PKC-epsilon

PKC-epsilon wt ¹ Amino Acid Sequence							
1	MVVFNGLLKI	KICEAVSLKP	TAWSLRHAVG	PRPQTFLLDP	YIALNVDDSR	IGQTATKQKT	60
61	NSPAWHDEFV	TDVCNCRKIE	LAVFHDAPIG	YDDFVANCTI	QFEELLQNGS	RHFEDWIDLE	120
121	PEGRVYVID	LSGSSGEAPK	DNEERVFRE	MRPRKRQGA	RRRVHQVNGH	KFMATYLRQP	180
181	TYCSHCRDFI	WGVIKQGYQ	CQVCTCVVHK	RCHELIITKC	AGLKKQETPD	QVGSQRFVSN	240
241	MPHKFGIHNY	KVPTFCDHCG	SLLWGLLRQG	LQCKVCKMNV	HRCETNVAP	NCGVDARGIA	300
301	KVLADLGVT	DKITNSGQRR	KKLIAGAESP	QPASGSSPSE	EDRSKSAPTS	PCDQEIKELE	360
361	NNIRKALSFD	NRGEEHRAAS	SPDGQLMSPG	ENGEVRQQA	KRLGLDEFNF	IKVLGKGSFG	420
421	KVMLAELKVK	DEVYAVKVLK	KDVLQDDDV	DCTMTEKRIL	ALARKHPYLT	QLYCCFQTKD	480
481	RLFFVMEYVN	GGDLMFQIQR	SRKFDEPRSR	FYAAEVTSAL	MFLHQHGVY	RDLKLDNILL	540
541	DAEGHCKLAD	FGMCKEGILN	GVTTTTFCGT	PDYIAPEILQ	ELEYGPSVDW	WALGVLMEY	600
601	MAGQPPFEAD	NEDDLFESIL	HDDVLYPVWL	SKEAVSILKA	FMTKNPHKRL	GCVASQNGED	660
661	AIKQHPFFKE	IDWVLLQKIK	IKPPFKPRIK	TKRDVNNFDQ	DFTREEPVLT	LVDEAIVKQI	720
721	NQEEFKGFSY	FGEDLMP					780

blue: PKC-epsilon sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_005391.1

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