

PKC-iota

protein kinase C iota

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCI

Synonyms: PKCI, PRKC-lambda/iota

Product No.: 0114-0000-1

Lot: 006

Description: Human PKC-iota, full length, amino acids M₁-V₅₈₇ (as in [NCBI/Protein](#) entry NP_002731.4), N-terminal GST-HIS₆, fusion protein with a Thrombin cleavage site, C-terminal HIS₆ tagged, expressed in Sf9 insect cells

Product identity: PKC-iota Lot 006, was confirmed as PKC-iota by specific western blot

Theoretical MW_{Fusion Protein}: 98,027 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: 0.369 µg/µl

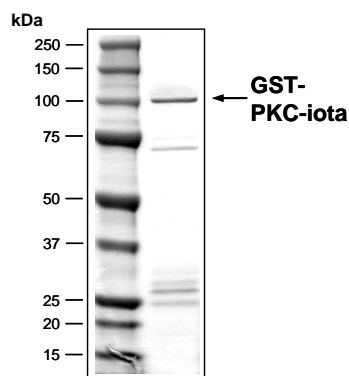
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 106 pmol/µg × min

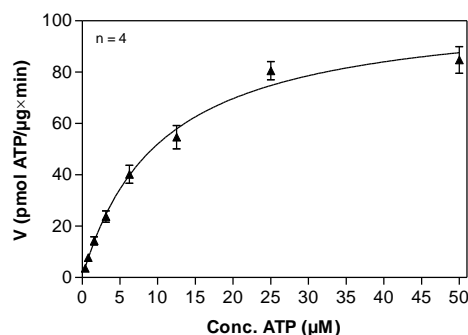
ATP-K_M: 10 µM

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



2 µg GST-PKC-iota

**PKC-iota 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
 - 3 µM Na-orthovanadate
 - 5 µg/ml phosphatidyl-serine
 - 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
 - PKC-iota: 1 µg/ml
- Filter binding assay
- MSPH membrane (Millipore)

Additional assay technology:

PKC-iota 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-PCK-iota 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	LVPRGSPGLD	GICSIEEFST	MSHTVAGGGS	GDHSHQVRVK	AYYRGDIMIT	HFEPSISFEG	300
301	LCNEVRDMCS	FDNEQLFTMK	WIDEEGDPC	VSSQLELEEA	FRLYELNKDS	ELLIHVPCV	360
361	PERPGMPCPG	EDKSIYRRGA	RRWRKLYCAN	GHTFQAKRFN	RAHCAICTD	RIWGLGRQGY	420
421	KCINCKLLVH	KKCHKLVITIE	CGRHSLPQEP	VMPMDQSSMH	SDHAQTVIPY	NPSSHESLDQ	480
481	VGEEKEAMNT	RESGKASSL	GLQDFDLLRV	IGRGSYAKVL	LVRLKKTDR	IYAMKVVKKEL	540
541	VNDDIDWV	QTEKHVFEQA	SNHPFLVGLH	SCFQTESRLF	FVIEYVNGGD	LMFHMQRQRK	600
601	LPEEHARFYS	AEISLALNYL	HERGIIYRDL	KLDNVLLDSE	GHIKLDYGM	CKEGLRPGDT	660
661	TSTFCGTPNY	IAPILRGED	YGFSVDWWAL	GVLMFEMMAG	RSPFDIVGSS	DNPQNTEDY	720
721	LFQVILEKQI	RIPRSLVKA	ASVLKSFLNK	DPKERLGCHP	QTGFADIQGH	PFFRNVDWDM	780
781	MEQKQVPPF	KPNISGEFGL	DNFDSQFTNE	PVQLTPDDDD	IVRKIDQSEF	EGFEYINPLL	840
841	MSAEECV	HHH	HHH				900

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

PKC-iota wt ¹ Amino Acid Sequence							
1	MSHTVAGGGS	GDHSHQVRVK	AYYRGDIMIT	HFEPSISFEG	LCNEVRDMCS	FDNEQLFTMK	60
61	WIDEEGDPC	VSSQLELEEA	FRLYELNKDS	ELLIHVPCV	PERPGMPCPG	EDKSIYRRGA	120
121	RRWRKLYCAN	GHTFQAKRFN	RAHCAICTD	RIWGLGRQGY	KCINCKLLVH	KKCHKLVITIE	180
181	CGRHSLPQEP	VMPMDQSSMH	SDHAQTVIPY	NPSSHESLDQ	VGEEKEAMNT	RESGKASSL	240
241	GLQDFDLLRV	IGRGSYAKVL	LVRLKKTDR	IYAMKVVKKEL	VNDDIDWV	QTEKHVFEQA	300
301	SNHPFLVGLH	SCFQTESRLF	FVIEYVNGGD	LMFHMQRQRK	LPEEHARFYS	AEISLALNYL	360
361	HERGIIYRDL	KLDNVLLDSE	GHIKLDYGM	CKEGLRPGDT	TSTFCGTPNY	IAPILRGED	420
421	YGFSVDWWAL	GVLMFEMMAG	RSPFDIVGSS	DNPQNTEDY	LFQVILEKQI	RIPRSLVKA	480
481	ASVLKSFLNK	DPKERLGCHP	QTGFADIQGH	PFFRNVDWDM	MEQKQVPPF	KPNISGEFGL	540
541	DNFDSQFTNE	PVQLTPDDDD	IVRKIDQSEF	EGFEYINPLL	MSAEECV		600

blue: PKC-iota sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_002731.4

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