

PKC-beta2

protein kinase C beta

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCB

Synonyms: PKCB, PRKCB1, PRKCB2, PKC β

Product No.: 0116-0000-1

Lot: 003

Description: Human PKC-beta2, full length, amino acids M₁-S₆₇₃ (as in [NCBI/Protein](#) entry NP_002729.2), N-terminal GST-fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: PKC-beta2 Lot 003, was confirmed as PKC-beta2 by specific Western Blotting

Theoretical MW_{Fusion Protein}: 103,660 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 10 μ l are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.145 μ g/ μ l

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

Biochemical Parameters:

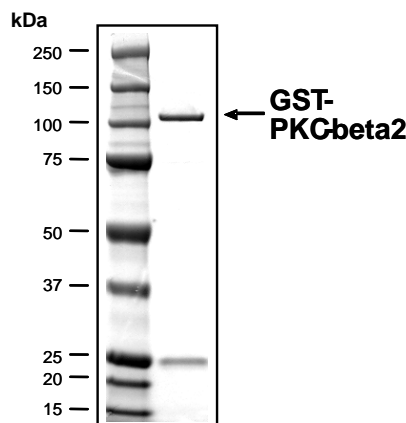
Specific kinase activity (P_i transfer): 320 pmol/ μ g \times min

ATP-K_M: 2.3 μ M

Additional assay technology:

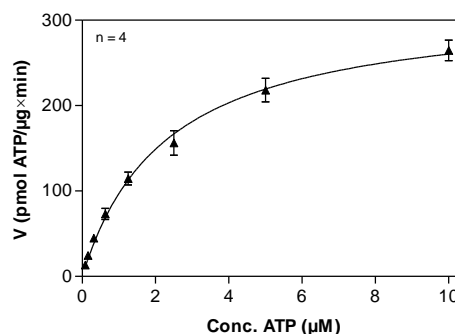
PKC-beta2 Lot 003 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega. ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

PKC-beta2 Lot 003: Coomassie stain



2.0 μ g GST-PKC-beta2

PKC-beta2 Lot 003: Determination of V_{max} and K_M value for ATP



- Assay conditions:
60 mM HEPES-NaOH, pH 7.5
3 mM MgCl₂
3 mM MnCl₂
3 μ M Na-orthovanadate
1.2 mM DTT
50 μ g/ml PEG_{20,000}
ATP (variable)
Substrate: Histone H1, 20 μ g/ml
Kinase: 1 μ g/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-Kinase 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	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	LVPRGS ARKM	ADPAAGPPPS	240
241	EGEESTVRF	RKALRQKNV	HEVKNHKFTA	RFFKQPTFCS	HCTDFIWGFG	KQGFQCQVCC	300
301	FVVHKRCHEF	VTFSCPGADK	GPASDDPRSK	HKFKIHTYSS	PTFCDHCGSL	LYGLIHQGMK	360
361	CDTCMMNVHK	RCVMNVPSLC	GTDHTERRGR	IYIQAIDRD	VLIVLVRDAK	NLVPMDPNGL	420
421	SDPYVKLKI	PDPKSEKQK	TKTIKCSLNP	EWNETFRFQL	KESDKDRRLS	VEIWDWDLTS	480
481	RNDFMGSLSF	GISELQKASV	DGWFKLLSQE	EGEYFNVPVP	PEGSEANEEL	RQKFERAKIS	540
541	QGTKVPEEK	TNTVSKFDNN	GNRDRMKLTD	FNFLMVLGKG	SFGKVMLSER	KGTDELYAVK	600
601	ILKKDVVIQD	DDVECTMVEK	RVLALPGKPP	FLTQLHSCFQ	TMDRLYFVME	YVNGGDLMYH	660
661	IQQVGRFKEP	HAVFYAAEIA	IGLFFLQSKG	IYRDLKLDN	VMLDSEGHK	IADFGMCKEN	720
721	IWDGVTTKTF	CGTPDYIAPE	IIAYQPYGKS	VDWWAFVLL	YEMLAGQAPF	EGEDELEFQ	780
781	SIMEHNVAYP	KSMSKEAVAI	CKGLMTKHPG	KRLGCGPEGE	RDIKEHAFFR	YIDWEKLERK	840
841	EIQPPYKPKA	CGRNAENFDR	FFTRHPPVLT	PPDQEVIRNI	DQSEFEGFSF	VNSEFLKPEV	900
901	KS						960

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: PKC-beta2

Kinase wt ¹ Amino Acid Sequence							
1	MADPAAGPPP	SEGEESTVRF	ARKGALRQKN	VHEVKNHKFT	ARFFKQPTFC	SHCTDFIWGF	60
61	GKQGFQCQVC	CFVVHKRCHE	FVTFSCPGAD	KGPASDDPRS	KHKFKIHTYS	SPTFCDHCGS	120
121	LLYGLIHQGM	KCDTCMMNVH	KRCVMNVPSL	CGTDHTERRG	RIYIQAIDRD	DVLIVLVRDA	180
181	KNLVPMDPNG	LSDPYVKLKL	IPDPKSEKQ	KTKTIKCSLN	PEWNETFRFQ	LKESDKDRRL	240
241	SVEIWDWDLT	SRNDFMGSLS	FGISELQKAS	VDGWFKLLSQ	EEGEYFNVPV	PPEGSEANEE	300
301	LRQKFERAKI	SQGTKVPEEK	TTNTVSKFDN	NGNRDRMKLT	DFNFLMVLGK	GSFGKVMLSE	360
361	RKGTDELYAV	KILKKDVVIQ	DDVECTMVE	KRVLALPGKP	PFLTQLHSCF	QTMDRLYFVM	420
421	EYVNGGDLMY	HIQQVGRFKE	PHAVFYAAEI	AIGLFFLQSK	GIIYRDLKLD	NVMLDSEGHI	480
481	KIADFGMCKE	NIWDGVTTKT	FCGTPDYIAP	EIIAYQPYGK	SVDWWAFVGL	LYEMLAGQAP	540
541	FEGEDELELF	QSIMEHNVAY	PKSMSKEAVA	ICKGLMTKHP	GKRLGCGPEG	ERDIKEHAFF	600
601	RYIDWEKLER	KEIQPPYKPK	ACGRNAENFD	RFFTRHPPVL	TPPDQEVIRN	IDQSEFEGFS	660
661	FVNSEFLKPE	VKS					720

blue: PKC-beta2 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein) accession number NP_002729.2

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