

## PKC-beta1

protein kinase C beta

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCB

Synonyms: PKC-beta; PKCB; PRKCB1; PRKCB2

Product No.: 0067-0000-1

Lot: 004

**Description:** Human PKC-beta1, full length, amino acids M<sub>1</sub>-V<sub>671</sub> (as in [NCBI/Protein](#) entry NP\_997700.1), N-terminal GST-fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

**Product identity:** PKC-beta1 Lot 004, was confirmed as PKC-beta1 by specific Western Blotting

**Theoretical MW**<sub>Fusion Protein</sub>: 103,517 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:** 0.217 µg/µl

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

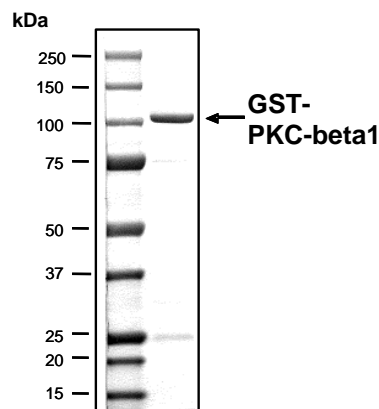
### Biochemical Parameters:

Specific kinase activity (P<sub>i</sub> transfer): 462 pmol/µg × min  
ATP-K<sub>M</sub>: 2.5 µM

### Additional assay technology:

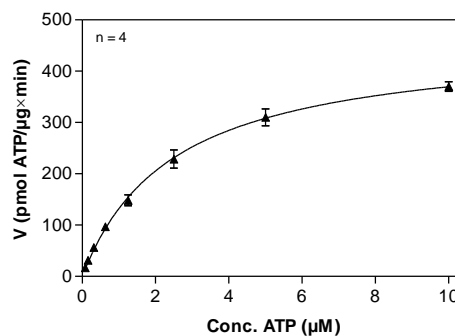
PKC-beta1 Lot 004 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega  
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

### PKC-beta1 Lot 004: Coomassie stain



2.0 µg GST-PKC-beta1

### PKC-beta1 Lot 004: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



- 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: Histone H1, 20 µg/ml
  - Kinase: 1 µg/ml
- Filter binding assay
  - MSFC membrane (Millipore)

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GST-PKC-beta1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	<b>LVPRGS</b> ARKM	<b>ADPAAGPPPS</b>	240
241	<b>EGEESTVRF</b>	<b>RKALRQKNV</b>	<b>HEVKNHKFTA</b>	<b>RFFKQPTFCS</b>	<b>HCTDFIWGFG</b>	<b>KQGFQCQVCC</b>	300
301	<b>FVVHKRCHEF</b>	<b>VTFSCPGADK</b>	<b>GPASDDPRSK</b>	<b>HKFKIHTYSS</b>	<b>PTFCDHCGSL</b>	<b>LYGLIHQGMK</b>	360
361	<b>CDTCMMNVHK</b>	<b>RCVMNVPSLC</b>	<b>GTDHTERRGR</b>	<b>IYIQAHRDRD</b>	<b>VLIVLVRDAK</b>	<b>NLVPMDPNGL</b>	420
421	<b>SDPYVKLCLI</b>	<b>PDPKSESKQK</b>	<b>TKTIKCSLNP</b>	<b>EWNETFRFQL</b>	<b>KESDKDRRLS</b>	<b>VEIWDWDLTS</b>	480
481	<b>RNDFMGSLSF</b>	<b>GISELQKASV</b>	<b>DGWFKLLSQE</b>	<b>EGEYFNVPVP</b>	<b>PEGSEANEEL</b>	<b>RQKFERAKIS</b>	540
541	<b>QGTKVPEEKT</b>	<b>TNTVSKFDNN</b>	<b>GNRDRMKLTD</b>	<b>FNFLMVLGKG</b>	<b>SFGKVMLSER</b>	<b>KGTDELYAVK</b>	600
601	<b>ILKKDVVIQD</b>	<b>DDVECTMVEK</b>	<b>RVLALPGKPP</b>	<b>FLTQLHSCFQ</b>	<b>TMDRLYFVME</b>	<b>YVNGGDLMYH</b>	660
661	<b>IQQVGRFKEP</b>	<b>HAVFYAAEIA</b>	<b>IGLFFLQSKG</b>	<b>IYRDLKLDN</b>	<b>VMLDSEGHK</b>	<b>IADFGMCKEN</b>	720
721	<b>IWDGVTTKTF</b>	<b>CGTPDYIAPE</b>	<b>IIAYQPYGKS</b>	<b>VDWWAFVLL</b>	<b>YEMLAQAPF</b>	<b>EGEDELEFQ</b>	780
781	<b>SIMEHNVAYP</b>	<b>KSMSKEAVAI</b>	<b>CKGLMTKHPG</b>	<b>KRLGCGPEGE</b>	<b>RDIKEHAFFR</b>	<b>YIDWEKLERK</b>	840
841	<b>EIQPPYKPKA</b>	<b>RDKRDTSNFD</b>	<b>KEFTRQPVEL</b>	<b>TPTDKLFIMN</b>	<b>LDQNEFAGFS</b>	<b>YTNPEFVINV</b>	900

1-218: GST **Pink**: Thrombin cleavage site **blue**: PKC-beta1

PKC-beta1 wt <sup>1</sup> Amino Acid Sequence							
1	<b>MADPAAGPPP</b>	<b>SEGEESTVRF</b>	<b>ARKGALRQKN</b>	<b>VHEVKNHKFT</b>	<b>ARFFKQPTFC</b>	<b>SHCTDFIWGF</b>	60
61	<b>GKQGFQCQVC</b>	<b>CFVVKRCHE</b>	<b>FVTFSCPGAD</b>	<b>KGPASDDPRS</b>	<b>KHKFKIHTYS</b>	<b>SPTFCDHCGS</b>	120
121	<b>LLYGLIHQGM</b>	<b>KCDTCMMNVH</b>	<b>KRCVMNVPSL</b>	<b>CGTDHTERRG</b>	<b>RIYIQAHRDR</b>	<b>DVLIVLVRDA</b>	180
181	<b>KNLVPMDPNG</b>	<b>LSDPYVKLKL</b>	<b>IPDPKSESKQ</b>	<b>KTKTIKCSLN</b>	<b>PEWNETFRFQ</b>	<b>LKESDKDRRL</b>	240
241	<b>SVEIWDWDLT</b>	<b>SRNDFMGSL</b>	<b>FGISELQKAS</b>	<b>VDGWFKLLSQ</b>	<b>EEGEYFNVPV</b>	<b>PPEGSEANEE</b>	300
301	<b>LRQKFERAKI</b>	<b>SQGTKVPEEK</b>	<b>TTNTVSKFDN</b>	<b>NGNRDRMKLT</b>	<b>DFNFLMVLGK</b>	<b>GSFGKVMLSE</b>	360
361	<b>RKGTDELYAV</b>	<b>KILKKDVVIQ</b>	<b>DDVECTMVE</b>	<b>KRVLALPGKP</b>	<b>PFLTQLHSCF</b>	<b>QTMDRLYFVM</b>	420
421	<b>EYVNGGDLMY</b>	<b>HIQQVGRFKE</b>	<b>PHAVFYAAEI</b>	<b>AIGLFFLQSK</b>	<b>GIIYRDLKLD</b>	<b>NVMLDSEGHI</b>	480
481	<b>KIADFGMCKE</b>	<b>NIWDGVTTKT</b>	<b>FCGTPDYIAP</b>	<b>EIIAYQPYGK</b>	<b>SVDWWAFVGL</b>	<b>LYEMLAQAP</b>	540
541	<b>FEGEDELELF</b>	<b>QSIMEHNVAY</b>	<b>PKSMSKEAVA</b>	<b>ICKGLMTKHP</b>	<b>GKRLGCGPEG</b>	<b>ERDIKEHAFF</b>	600
601	<b>RYIDWEKLER</b>	<b>KEIQPPYKPK</b>	<b>ARDKRDTSNF</b>	<b>DKEFTRQPVE</b>	<b>LTPTDKLFIM</b>	<b>NLDQNEFAGF</b>	660
661	<b>SYTNPEFVIN</b>	<b>V</b>					720

**blue**: PKC-beta1 sequence expressed in recombinant protein **Red**: variant in recombinant protein

<sup>1</sup>[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_997700.1) accession number NP\_997700.1