

## PKC-zeta wt aa184-592 (PKM-zeta)

protein kinase C zeta

Recombinant Human Active Protein Kinase

HGNC Symbol: PRKCZ

Synonyms: PKM-zeta, nPKC-zeta, PKC2

Product No.: 1240-0000-1

Lot: 001

**Description:** Human PKC-zeta, C-terminal fragment, amino acids M<sub>184</sub>-V<sub>592</sub> (as in [NCBI/Protein](#) entry NP\_002735.3), constitutive active fragment also denoted by PKM-zeta, N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** PKC-zeta wt aa184-592 Lot 001, was confirmed as PKC-zeta by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW<sub>Fusion Protein</sub>:** 74,896 Da

**Expression host:** Sf9 insect cells

**Purification:** GST-Affinity Chromatography

**Activation:** This kinase was not activated by special procedures

**Storage buffer:** 50 mM HEPES pH 7.5, 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:** 0.336 µg/µl

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

**Biochemical Parameters:**

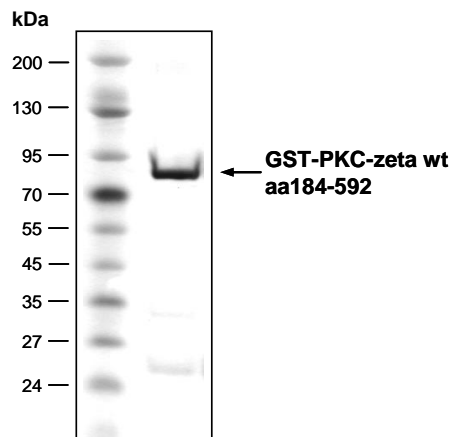
Specific kinase activity (P<sub>i</sub> transfer): 148 pmol/µg × min

ATP-K<sub>M</sub>: 8.1 µM

**Additional assay technology:**

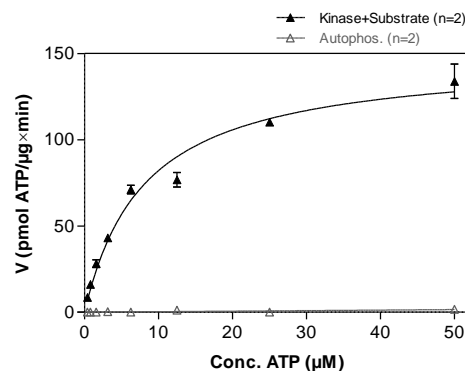
PKC-zeta wt aa184-592 Lot001 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

**PKC-zeta wt aa184-592 Lot 001:**  
Coomassie stain



2.0 µg GST-PKC-zeta wt aa184-592

**PKC-zeta wt aa184-592 Lot 001:**  
Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



**Determination of K<sub>M</sub> value & Specific activity:**

• Assay conditions:

60 mM HEPES-NaOH, pH 7.5

3 mM MgCl<sub>2</sub>; 3 mM MnCl<sub>2</sub>; 1 mM CaCl<sub>2</sub>

4 mM EDTA

5 µg/ml Phosphatidylserine

1 µg/ml 1,2 Dioleoyl-glycerol

3 µM Na-orthovanadate

1.2 mM DTT

50 µg / ml PEG<sub>20,000</sub>

ATP (variable)

Substrate: PKC-derived peptide 40 µg/ml

PKC-zeta wt aa184-592: 1 µg/ml

• Filter binding assay

MSPH membrane (Millipore)

## PKC-zeta wt aa184-592 (PKM-zeta)

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GST-PKC-zeta wt aa184-592 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	WPLQGWAQTF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PLAMDSVMP	QEPPVDDKNE	DADLPSEETD	GIAYISSSRK	HDSIKDDSED	LKPVIDGMDG	300
301	IKISQGLGLQ	DFDLIRVIGR	GSYAKVLLVR	LKKNDQIYAM	KVVKKELVHD	DEDIDWVQTE	360
361	KHVFEQASSN	PFLVGLHSCF	QTTSRFLFLVI	EYVNGGDLMF	HMQRQRKLPE	EHARFYAAEI	420
421	CIALNFLHER	GIIYRDLKLD	NVLLDADGHI	KLTDYGMCKE	GLGPGD'TTST	FCGTPNYIAP	480
481	EILRGEYGF	SVDWWALGVL	MFEMMAGRSP	FDIITDNPDM	NTEDYLFQVI	LEKPIRIPRF	540
541	LSVKASHVLK	GFLNKDPKER	LGCRPQTGFS	DIKSHAFFRS	IDWDLLEKKQ	ALPPFPQPIIT	600
601	DDYGLDNFDT	QFTSEPVQLT	PDEDAIKRI	DQSEFEGFEY	INPLLLSTEE	SV	660

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: PKC-zeta fragment

PKC-zeta wt <sup>1</sup> Amino Acid Sequence							
1	MPSRTGPKME	GSGGRVRLKA	HYGGDIFITS	VDAATTFEEL	CEEVRDMCRL	HQQHPLTLKW	60
61	VDSEGDPCTV	SSQMELEEEAF	RLARQCRDEG	LIHVFPSTP	EQPGLPCPGE	DKSIYRRGAR	120
121	RWRKLYRANG	HLFQAKRFNR	RAYCGQCSE	IWGLARQGYR	CINCKLLVHK	RCHGLVPLTC	180
181	RKHMDSVMP	QEPPVDDKNE	DADLPSEETD	GIAYISSSRK	HDSIKDDSED	LKPVIDGMDG	240
241	IKISQGLGLQ	DFDLIRVIGR	GSYAKVLLVR	LKKNDQIYAM	KVVKKELVHD	DEDIDWVQTE	300
301	KHVFEQASSN	PFLVGLHSCF	QTTSRFLFLVI	EYVNGGDLMF	HMQRQRKLPE	EHARFYAAEI	360
361	CIALNFLHER	GIIYRDLKLD	NVLLDADGHI	KLTDYGMCKE	GLGPGD'TTST	FCGTPNYIAP	420
421	EILRGEYGF	SVDWWALGVL	MFEMMAGRSP	FDIITDNPDM	NTEDYLFQVI	LEKPIRIPRF	480
481	LSVKASHVLK	GFLNKDPKER	LGCRPQTGFS	DIKSHAFFRS	IDWDLLEKKQ	ALPPFPQPIIT	540
541	DDYGLDNFDT	QFTSEPVQLT	PDEDAIKRI	DQSEFEGFEY	INPLLLSTEE	SV	600

blue: PKC-zeta sequence expressed in recombinant protein

<sup>1</sup>[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_002735.3) accession number NP\_002735.3

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