

ProQinase™ PKC-zeta aa184-592 K281M (PKM-zeta)

Protein kinase C, zeta

Recombinant Human inactivated Protein Kinase

HGNC Symbol: PRKCZ

Synonyms: PKM-zeta, nPKC-zeta, PKC2

Product No.: 1241-0000-1

Lot: 001

Description: Human PKC-zeta, C-terminal fragment, amino acids M₁₈₄-V₅₉₂ (as in NCBI/Protein entry NP_002735.3), fragment also termed PKM-zeta, mutationally inactivated by a K₂₈₁M mutation, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Theoretical MW_{Protein}: 74,899 Da

Expression: Sf9 cells

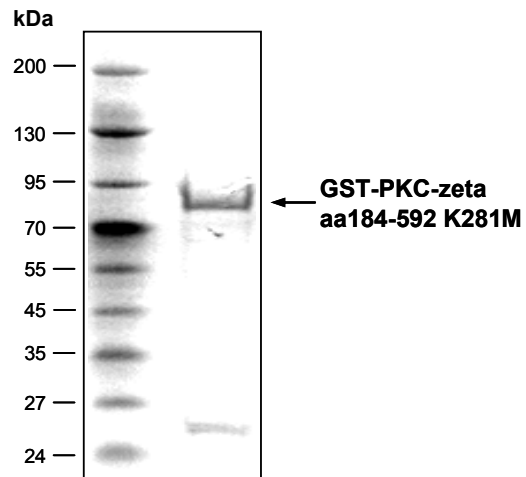
Purification: GST-Affinity Chromatography

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 20% glycerol

Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

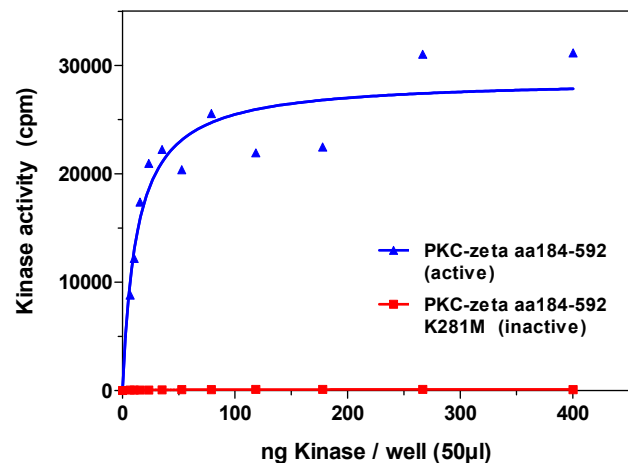
Protein concentration: 0.140 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Coomassie stain:



2.0 µg GST-PKC-zeta aa184-592 K281M

Kinase activity of PKC-zeta aa184-592 K281M (inactivated) vs PKC-zeta wt aa184-592:



Final assay concentrations:

- 60 mM HEPES-NaOH, pH 7.5
- 3 mM MgCl₂
- 3 mM MnCl₂
- 3 µM Na-orthovanadate
- 1.2 mM DTT
- 50 µg / ml PEG_{20,000}
- 1 µM ATP
- Substrate: PKC-derived peptide (R₁₁-RFARKGSLRQKNV) 10 µg/ml
- Recombinant PKC-zeta aa184-592 K281M or PKC-zeta wt aa184-592 (variable concentrations)

Assay: ³³PanQinase® Assay

ProQinase™ PKC-zeta aa184-592 K281M (PKM-zeta)

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PKC-zeta aa184-592 K281M Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RDSLEVLFGQ	240
241	PLAMDSVMPS	QEPPVDDKNE	DADLPSEETD	GIAYISSSRK	HDSIKDDSED	LKPVIDGMDG	300
301	IKISQGLGLQ	DFDLIRVIGR	GSYAKVLLVR	LKKNDQIYAM	MVVKKELVHD	DEDIDWVQTE	360
361	KHVFEQASSN	PFLVGLHSCF	QTTSRLFLVI	EYVNGGDLMF	HMQRQRKLPE	EHARFYAAEI	420
421	CIALNFLHER	GIIYRDLKLD	NVLLDADGHI	KLTDYGMCKE	GLGPGDTTST	FCGTPNYIAP	480
481	EILRGEEYGF	SVDWWALGVL	MFEMMAGRSP	FDIITDNPDM	NTEDYLFQVI	LEKPIRIPRF	540
541	LSVKASHVLK	GFLNKDPKER	LGCRPQTGFS	DIKSHAFFRS	IDWDLLEKKQ	ALPPFPQOIT	600
601	DDYGLDNFDT	QFTSEPVQLT	PDEDAIKRI	DQSEFEGFEY	INPLLLSTEE	SV	660

1-218: GST Red: HIS6-tag Green: 3C blue:PKC-zeta fragment M: K281M mutation

PKC-zeta wt ¹ amino acid sequence							
1	MPSRTGPKME	GSGGRVRLKA	HYGGDIFITS	VDAATTFEEL	CEEVRDMCRL	HQQHPLTLKW	60
61	VDSEGDPCTV	SSQMELEEEAF	RLARQCRDEG	LIHVFVFPSTP	EQGPLPCPGE	DKSIYRRGAR	120
121	RWRKLYRANG	HLFQAKRFNR	RAYCGQCSE	IWGLARQGYR	CINCKLLVHK	RCHGLVPLTC	180
181	RKHMDVMPS	QEPPVDDKNE	DADLPSEETD	GIAYISSSRK	HDSIKDDSED	LKPVIDGMDG	240
241	IKISQGLGLQ	DFDLIRVIGR	GSYAKVLLVR	LKKNDQIYAM	KVVKKELVHD	DEDIDWVQTE	300
301	KHVFEQASSN	PFLVGLHSCF	QTTSRLFLVI	EYVNGGDLMF	HMQRQRKLPE	EHARFYAAEI	360
361	CIALNFLHER	GIIYRDLKLD	NVLLDADGHI	KLTDYGMCKE	GLGPGDTTST	FCGTPNYIAP	420
421	EILRGEEYGF	SVDWWALGVL	MFEMMAGRSP	FDIITDNPDM	NTEDYLFQVI	LEKPIRIPRF	480
481	LSVKASHVLK	GFLNKDPKER	LGCRPQTGFS	DIKSHAFFRS	IDWDLLEKKQ	ALPPFPQOIT	540
541	DDYGLDNFDT	QFTSEPVQLT	PDEDAIKRI	DQSEFEGFEY	INPLLLSTEE	SV	600

blue: PKC-zeta sequence expressed in fusionprotein Red: K281M point mutation

¹NCBI/Protein accession number NP_002735.3

Recombinant Proteins