

ProQinase™ PIP5K1C

phosphatidylinositol-4-phosphate 5-kinase type 1 gamma

Recombinant Human Active Lipid Kinase

HGNC Symbol: PIP5K1C

Synonyms: KPIP5K1-gamma, PIP5Kgamma, PIP5K-GAMMA, PIPKIg_v4

Lipid Kinase Family: PIP5K

(according to: Phylogenomics of phosphoinositide lipid kinases: perspectives on the evolution of second messenger signaling and drug discover: James R Brown & Kurt R Auger; BMC Evolutionary Biology 11, 4-14 (2011))

Product No.: 1222-0000-1

Lot: 014

Description: Human PIP5K1C, amino acids M₁-T₆₆₈ (as in [NCBI/Protein](#) entry NP_036530.1), untagged, expressed in Sf9 insect cells

Product identity: PIP5K1C Lot 014, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 73843 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, 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: 0.083 µg/µl

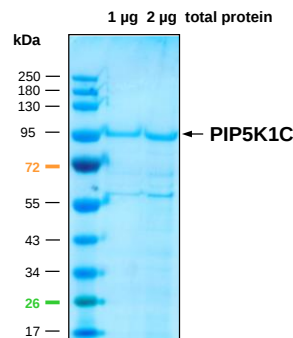
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

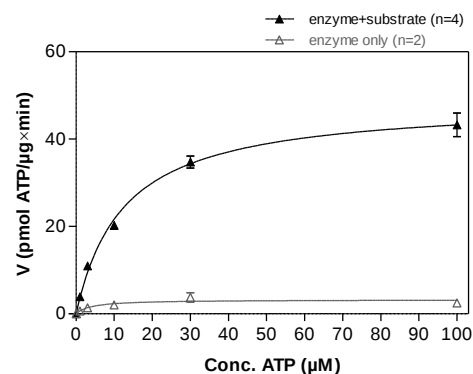
Specific kinase activity (P_i transfer): 49 pmol/µg*min

ATP-K_M: 12 µM

PIP5K1C Lot 014:
Coomassie stain



PIP5K1C Lot 014:
Determination of V_{max} and K_M value for ATP



• Assay conditions:

- 60 mM HEPES-NaOH, pH 7.5
- 3 mM MnCl₂
- 1 mM EGTA
- 100 mM NaCl
- 0.03% CHAPS
- 2 mM DTT
- ATP (variable)
- 1% (v/v) DMSO
- Substrate: PI: 25 µM / PS: 225 µM
- PI: L-alpha-phosphatidylinositol
- PS: 1-Palmitoyl-2-Oleoyl-sn-Glycero-3-[Phospho-L-Serine]
- PIP5K1C: 1 µg/ml

Assay technology: ADP-Glo (Promega)

Sequence information

PIP5K1C Recombinant Fusion Protein Amino Acid Sequence								
1	GPI	AMLEME	VPDEAESAEA	GAVPSEAAWA	AESGAAAGLA	QKKAAPTEVL	SMTAQPGPGH	60
61	GKKLGHRGVD	ASGETTYKKT	TSSTLKGAIQ	LGIGYTVGHL	SSKPERDVLM	QDFYVVESIF		120
121	FPSEGSNLTP	AHHFQDFRFK	TYAPVAFRYF	RELFGIRPDD	YLYSLCNEPL	IELSNPGASG		180
181	SLFYVTSDD	FIIKTVMHKE	AEFLQKLLPG	YYMNLNQNP	TLLPKFYGLY	CVQSGGKNIR		240
241	VVVMNNILPR	VVKMHLKFDL	KGSTYKRRAS	KKEKEKSFP	YKDLDFMQDM	PEGLLLDADT		300
301	FSALVKTQ	DCLVLESFKI	MDYSLLLG	VHNIDQHERERQ	AQGAQSTSDE	KRPVGQKALY		360
361	STAMESIQGG	AARGEAI	ESDDTMGGIPAVN	GRGERLLLHI	GIIDILQSYR	FIKLEHTWK		420
421	ALVHDGDTVS	VHRPSFYAER	FFKFMSNTVF	RKNSSLKSSP	SKKGRGGALL	AVKPLGPTAA		480
481	FSASQIPSER	EEAQYDLRGA	RSYPTLEDEG	RPDLLPCTPP	SFEEATTASI	ATTLSSSTLS		540
541	IPERSPSETS	EQPRYRRRTQ	SSGQDGRPQE	EPPAEEDLQQ	ITVQVEPACS	VEIVVPKEED		600
601	AGVEASPAGA	SAAVEVETAS	QASDEEGAPA	SQASDEEDAP	ATDIYFPTDE	RSWVYSPLHY		660
661	SAQAPPASDG	ESDT						720

1-6: legacy of 3C cleavage blue: PIP5K1C

PIP5K1C wt ¹ Amino Acid Sequence								
1	MELEV	PDEAE	SAEAGAVPSE	AAWAAESGAA	AGLAQKKAAP	TEVLSMTAQP	GPGHGKKLGH	60
61	RGVDASGETT	YKKTTSSTLK	GAIQLGIGYT	VGHLSSKPER	DVLMQDFYV	ESIFFPSEGS		120
121	NLTPAHHFQD	FRFKTYAPVA	FRYFRELFGI	RPDDYLYSLC	NEPLIELSNP	GASGSLFYVT		180
181	SDDEFIIKTV	MHKEAEFLQK	LLPGYYMNLN	QNPRTLTPKF	YGLYCVQSGG	KNIRVVVMNN		240
241	ILPRVVKMHL	KFDLKGSTYK	RRASKKEKEK	SFPTYKDLD	FQDMPEGLLL	DADTFSALVK		300
301	TLQRDCLVLE	SFKIMDYSL	LGVHNIDQHE	RERQAQGAQS	TSDEKRPVGQ	KALYSTAMES		360
361	IQGAARGE	IESDDTMGGI	PAVNGRGERL	LLHIGIIDIL	QSYRFIKKLE	HTWKALVHDG		420
421	DTVSVHRPSF	YAERFFKFMS	NTVFRKNSSL	KSSPSKKGRG	GALLAVKPLG	PTAAFSASQI		480
481	PSEREEAQYD	LRGARSYPTL	EDEGRPDLLP	CTPPSFEEAT	TASIATTLSS	TLSIPERSP		540
541	SETSEQPRYR	RRTQSSGQDG	RPQEEPPAE	DLQITVQVE	PACSVIIVVP	KEEDAGVEAS		600
600	PAGASAAVEV	ETASQASDEE	GAPASQASDE	EDAPATDIYF	PTDERSWVYS	PLHYSQAAPP		660
661	ASDGESDT							720

blue: PIP5K1C sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_036530.1

Recombinant Proteins