

ProQinase™ PIP5K1B

phosphatidylinositol-4-phosphate 5-kinase, type I, beta

Recombinant Human Active Lipid Kinase

HGNC Symbol: PIP5K1B

Synonyms: MSS4, PIP5K1-beta, STM7

Product No.: 1239-0000-1

Lot: 009

Description: Human PIP5K1B, full length, amino acids M₁-L₅₄₀ (as in NCBI/Protein entry NP_003549.1), untagged, expressed in Sf9 insect cells.

Product identity: PIP5K1B Lot 009, was confirmed as PIP5K1B by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 62,003 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-affinity chromatography followed by 3C mediated removal of the GST tag

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!

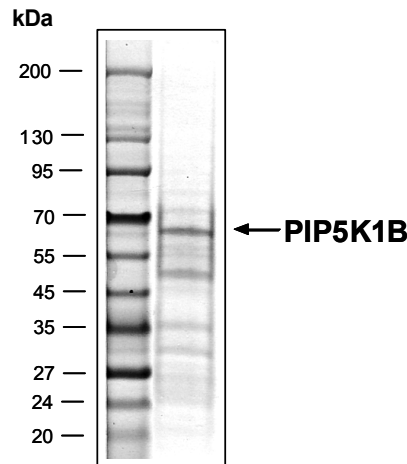
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.099 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

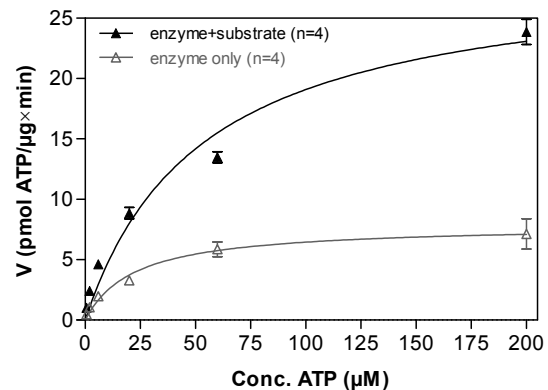
Specific kinase activity (P_i transfer): 29 pmol/µg×min
ATP-K_M: 53 µM

PIP5K1B Lot 003: Coomassie stain



2.0 µg PIP5K1B

PIP5K1B Lot 003: Determination of V_{max} and K_M value for ATP ADP-Glo™ Kinase Assay / Promega



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - ATP (variable)
- Substrate: PI: 25 µM / PS: 225 µM
- PI: L-alpha-phosphatidylinositol
- PS: 1-Palmitoyl-2-Oleoyl-sn-Glycero-3-[Phospho-L-Serine]
- PIP5K1B: 4.0 µg / ml

For further information on ADP-Glo™ kinase activity detection please visit Promega.com

ProQinase™ PIP5K1B

Product No.: 1239-0000-1

PIP5K1B Recombinant Protein Amino Acid Sequence							
1	GPLAMGARGR	MSSAAENGEA	APGKQNEEKT	YKKTASSAIK	GAIQLGIGYT	VGNLTSKPER	60
61	DVLMQDFYVV	ESVFLPSEGS	NLTPAHHPD	FRFKTYAPLA	FRYFRELFGE	KPDDYLYSIC	120
121	SEPLIELSNP	GASGSLFFVT	SDDEFI IKTV	QHKEAEFLQK	LLPGYMNLN	QNPRTLLPKF	180
181	YGLYCMQSGG	INIRIVVMNN	VLPRSMRMHF	TYDLKGSTYK	RRASRKEREK	SNPTFKDLDF	240
241	LQDMHEGLYF	DTETYNALMK	TLQRDCRVLE	SFKIMDYSLL	LGIHFLDHSL	KEKEEETPQN	300
301	VPDAKRTGMQ	KVLYSTAMES	IQGPKGSGDG	IITENPDTMG	GIPAKSHRGE	KLLLFMGIID	360
361	ILQSYRLMKK	LEHSWKALVY	DGDTVSVHRP	SFYADREFLKF	MNSRVFKKIQ	ALKASPSKKR	420
421	CNSIAALKAT	SQEIVSSISQ	EWKDEKRDLL	TEGQSFSSLD	EEALGSRHRP	DLVPSTPSLF	480
481	EAASLATTIS	SSSLYVNEHY	PHDRPTLYSN	SKGLPSSSTF	TLEEGTIYLT	AEPNTLEVQD	540
541	DNASVLDVYL						600

1-10: legacy of 3C cleavage blue: PIP5K1B

PIP5K1B wt ¹ amino acid sequence							
1	MSSAAENGEA	APGKQNEEKT	YKKTASSAIK	GAIQLGIGYT	VGNLTSKPER	DVLMQDFYVV	60
61	ESVFLPSEGS	NLTPAHHPD	FRFKTYAPLA	FRYFRELFGE	KPDDYLYSIC	SEPLIELSNP	120
121	GASGSLFFVT	SDDEFI IKTV	QHKEAEFLQK	LLPGYMNLN	QNPRTLLPKF	YGLYCMQSGG	180
181	INIRIVVMNN	VLPRSMRMHF	TYDLKGSTYK	RRASRKEREK	SNPTFKDLDF	LQDMHEGLYF	240
241	DTETYNALMK	TLQRDCRVLE	SFKIMDYSLL	LGIHFLDHSL	KEKEEETPQN	VPDAKRTGMQ	300
301	KVLYSTAMES	IQGPKGSGDG	IITENPDTMG	GIPAKSHRGE	KLLLFMGIID	ILQSYRLMKK	360
361	LEHSWKALVY	DGDTVSVHRP	SFYADREFLKF	MNSRVFKKIQ	ALKASPSKKR	CNSIAALKAT	420
421	SQEIVSSISQ	EWKDEKRDLL	TEGQSFSSLD	EEALGSRHRP	DLVPSTPSLF	EAASLATTIS	480
481	SSSLYVNEHY	PHDRPTLYSN	SKGLPSSSTF	TLEEGTIYLT	AEPNTLEVQD	DNASVLDVYL	540

blue: PIP5K1B sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_003549.1

Recombinant Proteins