

# Certificate of Analysis



## 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 M<sub>1</sub>-L<sub>540</sub> (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<sub>Fusion Protein</sub>:** 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!**

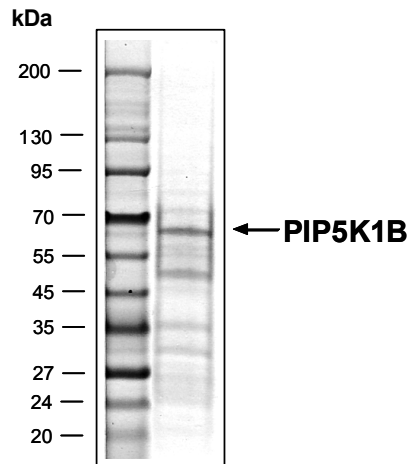
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

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

### Biochemical Parameters:

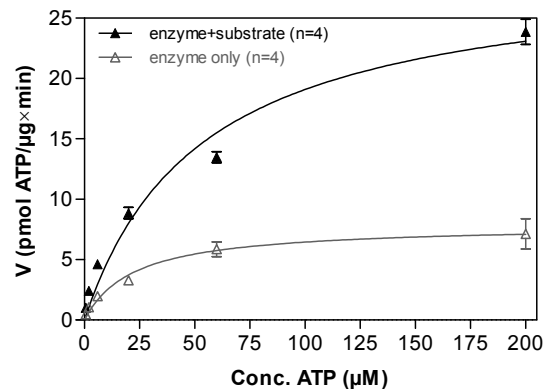
Specific kinase activity (P<sub>i</sub> transfer): 29 pmol/µg×min  
ATP-K<sub>M</sub>: 53 µM

### PIP5K1B Lot 003: Coomassie stain



2.0 µg PIP5K1B

### PIP5K1B Lot 003: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP ADP-Glo™ Kinase Assay / Promega



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

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 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: 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](http://www.promega.com)



This product is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.

ProQinase GmbH • Breisacher Str. 117 • D-79106 Freiburg • Germany • [www.proqinase.com](http://www.proqinase.com) • [info@proqinase.com](mailto:info@proqinase.com)

CoA V1.0 PIP5K1B\_Lot009\_V1.doc

# PIP5K1B

Product No.: 1239-0000-1

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

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

PIP5K1B wt <sup>1</sup> amino acid sequence							
1	<b>MSSAAENGEA</b>	<b>APGKQNEEKT</b>	<b>YKKTASSAIK</b>	<b>GAIQLGIGYT</b>	<b>VGNLTSKPER</b>	<b>DVLMQDFYVV</b>	60
61	<b>ESVFLPSEGS</b>	<b>NLTPAHHPD</b>	<b>FRFKTYAPLA</b>	<b>FRYFRELFGI</b>	<b>KPDDYLYSIC</b>	<b>SEPLIELSNP</b>	120
121	<b>GASGSLFFVT</b>	<b>SDDEFIIKTV</b>	<b>QHKEAEFLQK</b>	<b>LLPGYYMNLN</b>	<b>QNPRTLLPKF</b>	<b>YGLYCMQSGG</b>	180
181	<b>INIRIVMNN</b>	<b>VLPRSMRMHF</b>	<b>TYDLKGSTYK</b>	<b>RRASRKEREK</b>	<b>SNPTFKDLDF</b>	<b>LQDMHEGLYF</b>	240
241	<b>DTETYNALMK</b>	<b>TLQRDCRVLE</b>	<b>SFKIMDYSLL</b>	<b>LGIHFLDHSL</b>	<b>KEKEEETPQN</b>	<b>VPDAKRTGMQ</b>	300
301	<b>KVLYSTAMES</b>	<b>IQGPKGSGDG</b>	<b>IITENPDTMG</b>	<b>GIPAKSHRGE</b>	<b>KLLLFMGIID</b>	<b>ILQSYRLMCK</b>	360
361	<b>LEHSWKALVY</b>	<b>DGDTVSVHRP</b>	<b>SFYADRFLKF</b>	<b>MNSRVFKKIQ</b>	<b>ALKASPSKKR</b>	<b>CNSIAALKAT</b>	420
421	<b>SQEIVSSISQ</b>	<b>EWKDEKRDLL</b>	<b>TEGQSFSSLD</b>	<b>EEALGSRHRP</b>	<b>DLVPSTPSLF</b>	<b>EAASLATTIS</b>	480
481	<b>SSSLYVNEHY</b>	<b>PHDRPTLYSN</b>	<b>SKGLPSSSTF</b>	<b>TLEEGTIYLT</b>	<b>AEPNTLEVQD</b>	<b>DNASVLDVYL</b>	540

**blue**: PIP5K1B sequence expressed in fusionprotein

<sup>1</sup>NCBI/Protein accession number NP\_003549.1