Datasheet for ABIN7556668

# PIP5K1B Protein (AA 1-539) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | PIP5K1B |
| Protein Characteristics: | AA 1-539 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This PIP5K1B protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Purpose: | Custom-made recombinat Pip5k1b Protein expressed in mammalien cells. |
| Sequence: | MSSTAENGDA VPGKQNEEKT YKKTASSAIK GAIQLGIGYT VGNLTSKPER DVLMQDFYVV ESVFLPSEGS NLTPAHHYPD FRFKTYAPLA FRYFRELFGI KPDDYLYSIC SEPLIELSNP GASGSLFFLT SDDEFIIKTV QHKEAEFLQK LLPGYYMNLN QNPRTLLPKF YGLYCMQSGG INIRIVVMNN VLPRAMRMHL TYDLKGSTYK RRASRKEREK PNPTFKDLDF LQDMHEGLYF DTETYNALMK TLQRDCRVLE SFKIMDYSLL LGIHILDHSL KDKEEEPLQN VPDAKRPGMQ KVLYSTAMES IQGPGKSADG IIAENPDTMG GIPAKSHKGE KLLLFMGIID ILQSYRLMKK LEHSWKALVY DGDTVSVHRP SFYADRFLKF MNSRVFKKIQ ALKASPSKKR CNSIAALKAT SQEIVSSISQ EWKDEKRDLL TEGQSFSSLD EEALGSRHRP DLVPSTPSLF EAASLATTIS SSSLYVGEHY PHDRTTLYSN SKGLPSSSTF TLEEGTIYLT AEPNTLDLQD DASVLDVYL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you** |

## Product Details

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| | **have a special request, please contact us.** |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. |
| Purity: | > 90 % as determined by Bis-Tris Page, Western Blot |
| Grade: | custom-made |

## Target Details

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| Target: | PIP5K1B |
| Alternative Name: | Pip5k1b (PIP5K1B Products) |
| Background: | Phosphatidylinositol 4-phosphate 5-kinase type-1 beta (PIP5KI-beta) (PtdIns(4)P-5-kinase 1 beta) (EC 2.7.1.68) (68 kDa type I phosphatidylinositol 4-phosphate 5-kinase beta) (Phosphatidylinositol 4-phosphate 5-kinase type I alpha) (PIP5KIalpha) (Phosphatidylinositol 4-phosphate 5-kinase type I beta) (PIP5KIbeta),FUNCTION: Catalyzes the phosphorylation of phosphatidylinositol 4-phosphate (PtdIns(4)P/PI4P) to form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2/PIP2), a lipid second messenger that regulates several cellular processes such as signal transduction, vesicle trafficking, actin cytoskeleton dynamics, cell adhesion, and cell motility (PubMed:8798574, PubMed:9367159, PubMed:9535851, PubMed:22942276). PtdIns(4,5)P2 can directly act as a second messenger or can be utilized as a precursor to generate other second messengers: inositol 1,4,5-trisphosphate (IP3), diacylglycerol (DAG) or phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3/PIP3) (By similarity). Mediates RAC1-dependent reorganization of actin filaments (PubMed:10679324). |

## Target Details

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| | Contributes to the activation of phospholipase PLD2 (PubMed:11032811). Together with PIP5K1A, is required, after stimulation by G-protein coupled receptors, for the synthesis of IP3 that will induce stable platelet adhesion (PubMed:18772378). {ECO:0000250\|UniProtKB:Q99755, ECO:0000269\|PubMed:10679324, ECO:0000269\|PubMed:11032811, ECO:0000269\|PubMed:18772378, ECO:0000269\|PubMed:22942276, ECO:0000269\|PubMed:8798574, ECO:0000269\|PubMed:9367159, ECO:0000269\|PubMed:9535851}. |
| Molecular Weight: | 60.8 kDa |
| UniProt: | P70181 |
| Pathways: | PI3K-Akt Signaling, Inositol Metabolic Process, Cell-Cell Junction Organization |

## Application Details

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| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |