

Product datasheet for **RC223713**

PIP5K1 beta (PIP5K1B) (NM_003558) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIP5K1 beta (PIP5K1B) (NM_003558) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIP5K1 beta
Synonyms:	MSS4; STM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223713 representing NM_003558
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCTTCTGCTGCTGAAAAATGGAGAGGCAGCACCTGGAAAAACAAAATGAAGAAAAACCTATAAAAAGA
 CTGCATCATCTGCTATTAAGGTGCTATTCAGCTGGGAATAGGATACACAGTGGTAATCTCACTCCAA
 GCCAGAACGAGATGTTCTTATGCAAGACTTTTATGTGGTGAAAGTGTGTTCTACCCAGCGAAGGGAGC
 AATCTGACCCAGCACATCACTACCCAGACTTTAGATTTAAGACATACGCTCCATTAGCATTCCGATATT
 TCAGAGAACTTTTTGGTATCAAGCCTGATGATTACTTGTATTCCATCTGCAGTGAACCTCTAATAGA
 ACTGTCTAACCTGGAGCCAGTGGATCCTTGTTTTTGTGACCAGTGTGATGAATTTATCATAAAACAGT
 CAGCACAAGAAGCTGAGTTTCTCAGAAGCTACTGCCAGGCTATTACATGAATTTAAACCAGAATCCAA
 GGACTCTTTGCCAAAATTTACGGACTGTATTGTATGCAATCAGGAGGCATTAATATCAGGATTGTGGT
 GATGAACAACGTTTTGCCAGCTCCATGAGAATGCACTTACATATGACTTGAAAGGCTCAACGTATAAG
 CGAAGAGCATCCCGTAAAGAGAGAGAGAAATCCAACCCACATTTAAGGACTTAGATTTCTGCAAGACA
 TGCACGAAGGGTTGATTTTTGATACGGAACATACAACGCGCTTATGAAAACACTTCAGAGAGACTGCCG
 GGTGCTAGAAAAGCTTCAAGATCATGGATTATAGCCTTCTGTTGGGAATTCATTTCTGGACCATTCCCTC
 AAAGAGAAAAGAGGAGGAGACCCACAAAATGTGCCTGATGCTAAGCGGACTGGGATGCAGAAGGTTCTCT
 ACTCAACAGCCATGGAATCTATCCAGGGTCCAGGGAAATCTGGAGATGGGATAATCACAGAGAACCAGA
 CACAATGGGAGGCATTCCAGCTAAAAGCCATAGGGGAGAAAACTACTTTATTTATGGGCATTATTGAC
 ATCTGCAATCATATAGGTTAATGAAGAAGTTAGAACATTCCTGGAAAGCTCTTGTTTATGATGGGGACA
 CTGTTTTCTGTCATAGACCAAGCTTTTATGCAGACAGATTTCTTAAGTTCATGAATCCAGAGTTTTCAA
 GAAAATTCAGCTTTGAAGGCTTCACCGTCTAAGAAACGGTGCAATTCATCGCCGCCCTAAAGGCCACT
 TCACAGGAGATTGTGCCTCAATTAGCCAGGAATGGAAGGATGAGAAGCGGGATTGCTGACTGAAGGAC
 AAAGTTTTAGCAGCCTTGTGAAGAAGCCTGGGATCCCGACACAGGCCAGACCTGGTCCCTAGCACTCC
 ATCACTGTTTGAAGCTGCTTCTTGGCAACCACAATTTTCTTCTTCTTATACGTCAATGAGCACTAT
 CCACACGACAGGCCTACTCTATTCAAACAGCAAAGGTTACCTTCCAGTTCAACATTTACCTTGGAA
 AGGGGACCATCTACTTGACCGCTGAGCCCAACTCTGGAAGTGCAGGATGACAATGCTTCTGTGCTTGA
 CGTCTATTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223713 representing NM_003558
 Red=Cloning site Green=Tags(s)

MSSAAENGEAAPGKQNEEKTYKKTASSAIKGAIQLGIGYTVGNLTSKPERDVLMDQFYVVESVFLPSEGS
 NLTPAHHPDFRFKYAPLAFRYFRELFGIKPDDYLYSICSEPLIELSNPGASGSLFFVTSDDDEFIIKTV
 QHKEAEFLQKLLPGYYMNLNQNPRLLPKFYGLYCMQSGGINIRIVVMNNVLPMSRMHFTYDLKGSTYK
 RRASRKEREKSNPTFKDLDFLQDMHEGLYFDTETYNALMKTLQRDCRVLESFKIMDYSLLLGIHFLDHS
 LKEKEEETPQNVDAKRTGMQKVLYSTAMESIQGPGKSGDGIITENPDTMGGIPAKSHRGEKLLLFMGIID
 ILQSYRLMKKLEHSWKALVYDGDVSVHRPSFYADRFLKFMSRVFKKIQAALKASPSKKRCSIAALKAT
 SQEIVSSI SQEWKDEKRDLLTEGQSFSSLDEEALGSRHRPDLVPSTPSLFEAASLATTISSSSLVYNEHY
 PHDRPTLYSNSKGLPSSSTFTLEEGTIYLTAEPTNTLEVQDDNASVLDVYL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2876_h09.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_003558

ORF Size: 1620 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_003558.4](#)
RefSeq Size: 2764 bp

RefSeq ORF: 1623 bp

Locus ID: 8395

UniProt ID: [O14986](#)

Cytogenetics: 9q21.11

Domains: PIP5K

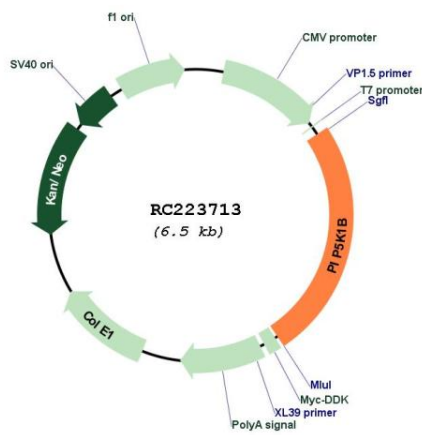
Protein Families: Druggable Genome

Protein Pathways: Endocytosis, Fc gamma R-mediated phagocytosis, Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system, Regulation of actin cytoskeleton

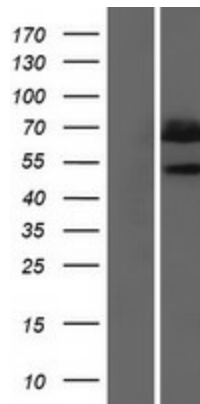
MW: 60.9 kDa

Gene Summary: Participates in the biosynthesis of phosphatidylinositol 4,5-bisphosphate. Mediates RAC1-dependent reorganization of actin filaments. Contributes to the activation of PLD2. Together with PIP5K1A is required after stimulation of G-protein coupled receptors for stable platelet adhesion (By similarity).[UniProtKB/Swiss-Prot Function]

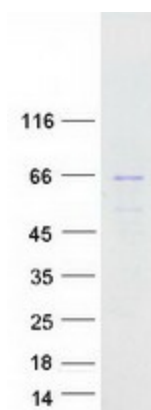
Product images:



Circular map for RC223713



Western blot validation of overexpression lysate (Cat# [LY418599]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223713 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIP5K1B protein (Cat# [TP323713]). The protein was produced from HEK293T cells transfected with PIP5K1B cDNA clone (Cat# RC223713) using MegaTran 2.0 (Cat# [TT210002]).