

Product datasheet for **TP509646**

Pip5k1c (NM_001146687) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse phosphatidylinositol-4-phosphate 5-kinase, type 1 gamma (Pip5k1c), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR209646 protein sequence Red =Cloning site Green =Tags(s)

MELEVPDEAESAEAGAVTAEAAWSAESGAAAGMTQKKAGLAEAPLVTGQPGPGHGKKGHGRGVDASGETT
YKKTTSSTLKGAIQLGIGYTVGNLSSKPERDVLMDQDFYVVESIFFPSEGSNLTPAHHFQDFRFKTYAPVA
FRYFRELFGIRPDDYLYSLCNEPLIELSNPGASGSVFYVTSDDDEFIHKVMHKEAEFLQKLLPGYMMNLN
QNPRTLLPKFYGLYCVQSGGKNIRVVMNNVLPVVKMHLKFDLKGSTYKRRASKKEKEKSLPTYKDLDF
MQDMPEGLLLDSDTFGALVKTLQRDCLVLESFKIMDYSLLLGVHNIDQQERERQAEGAQSKADEKRPVAQ
KALYSTAMESIQGGAARGEAIETDDTMGGIPAVNGRGERLLLHIGIIDILQSYRFIKKLEHTWKALVHDG
DTVSVHRPSFYAERFFKMSSTVFRKSSSLKSSPSKGRGALLAVKPLGPTAAFSASQIPSEREDVQYDL
RGARSYPTLEDEGRPDLLPCTPPSFEEATTASIATLSSTLSIPERSPDTSEQPRYRRRTQSSGQDGR
PQEEPHAEDLQKITVQVEPVCVGVVVPKEEGAGVEVPPCGASAAAASVEIDAASQASEPASQASDEEDAPS
TDIYF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	69.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP_001140159](#)

Locus ID: 18717

UniProt ID: [Q70161](#)

RefSeq Size: 4222

Cytogenetics: 10 C1

RefSeq ORF: 1908

Synonyms: A115456; A1835305; Pip5kIgamma

Summary: Catalyzes the phosphorylation of phosphatidylinositol 4-phosphate (PtdIns4P) to form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P₂). PtdIns(4,5)P₂ is involved in a variety of cellular processes and is the substrate to form phosphatidylinositol 3,4,5-trisphosphate (PtdIns(3,4,5)P₃), another second messenger. The majority of PtdIns(4,5)P₂ is thought to occur via type I phosphatidylinositol 4-phosphate 5-kinases given the abundance of PtdIns4P. Participates in a variety of cellular processes such as vesicle mediated transport, cell adhesion, cell polarization and cell migration. Together with PIP5K1A is required for phagocytosis, but they regulate different types of actin remodeling at sequential steps. Promotes particle attachment by generating the pool of PtdIns(4,5)P₂ that induces controlled actin depolymerization to facilitate Fc-gamma-R clustering. Mediates RAC1-dependent reorganization of actin filaments. Required for synaptic vesicle transport. Controls the plasma membrane pool of PtdIns(4,5)P₂ implicated in synaptic vesicle endocytosis and exocytosis. Plays a role in endocytosis mediated by clathrin and AP-2 (adaptor protein complex 2). Required for clathrin-coated pits assembly at the synapse. Participates in cell junction assembly. Modulates adherens junctions formation by facilitating CDH1 trafficking. Required for focal adhesion dynamics. Modulates the targeting of talins (TLN1 and TLN2) to the plasma membrane and their efficient assembly into focal adhesions. Regulates the interaction between talins (TLN1 and TLN2) and beta-integrins. Required for uropodium formation and retraction of the cell rear during directed migration. Has a role in growth factor- stimulated directional cell migration and adhesion. Required for talin assembly into nascent adhesions forming at the leading edge toward the direction of the growth factor. Negative regulator of T-cell activation and adhesion. Negatively regulates integrin alpha-L/beta-2 (LFA-1) polarization and adhesion induced by T-cell receptor. Together with PIP5K1A has a role during embryogenesis and together with PIP5K1B may have a role immediately after birth.[UniProtKB/Swiss-Prot Function]