

Product datasheet for **TP509646**

Pip5k1c (NM_001146687) Mouse Recombinant Protein

Product data:

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| 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) MELEVPDEAESAEAGAVTAEAAWSAESGAAAGMTQKKAGLAEAPLVTGQPGPGHGKKLGHRGVDASGET T YKKTTSSTLKGAIQLGIGYTVGNLSSKPERDVLMDQDFYVVESIFFPSEGSNLTPAHHFQDFRFTYAPVA FRYFRELFGIRPDDYLYSLCNEPLIELSNPGASGSVFYVTSDDDEFIIKTVMHKEAEFLQKLLPGYYMNLN QNPRTLLPKFYGLYCVQSGGKNIRVVMMNNVLPVVKMHLKFDLKGSTYKRRASKKEKEKSLPTYKDLDLDF MQDMPEGLLLDSDTFGALVKTLQRDCLVLEFSKIMDYSLLLGVHNIDQQERERQAEGAQSKADEKRPVA Q KALYSTAMESIQGGAARGEAIETDDTMGGIPAVNGRGERLLLHIGIIDILQSYRFIKKLEHTWKALVHDG DTVSVHRPSFYAERFFKFMSTVFRKSSSLKSSPSKKGRGALLAVKPLGPTAAFSASQIPSEREDVQYDL RGARSYPTLEDEGRPDLLPCTPPSFEEATTASIATLSSTLSIPERSPSDTSEQPRYRRRTQSSGQDGR PQEEPHAEDLQKITVQVEPVCGVGVPKEEGAGVEVPPCGASAAASVEIDAASQASEPASQASDEEDAPS TDIYF TR TRPLE QKLISEEDLAANDILDYKDDDDKV |
| 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. |


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| Stability: | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| RefSeq: | NP_001140159 |
| Locus ID: | 18717 |
| UniProt ID: | Q70161 |
| RefSeq Size: | 4222 |
| Cytogenetics: | 10 C1 |
| RefSeq ORF: | 1905 |
| Synonyms: | AI115456; AI835305; Pip5klgamma |
| Summary: | <p>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.</p> <p>[UniProtKB/Swiss-Prot Function]</p> |