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Product datasheet for MC218219

Pip5k1c (NM_001146687) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pip5k1c (NM_001146687) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pip5k1c
Synonyms:	AI115456; AI835305; Pip5kIgamma
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>MC218219 representing NM_001146687
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCTAGAGGTGCCGGACGAGGCGGAGAGCGCCGAAGCGGGGGCCGTGACGGCGGAAGCGGCCTGGT
CTGCGGAGAGTGGGGCGGCGGCAGGTATGACCCAGAAGAAGGCTGGCCTTGCAGAGGCCCCCTTGGTGAC
AGGGCAGCCAGGCCCTGGCCATGGGAAGAAGCTGGGCCACCGAGGCGTGGATGCGTCGGGAGAGACTACG
TATAAGAAGACCACCTCGTCCACCCTGAAGGGCGCCATCCAGCTGGGGATCGGGTACACGGTGGGCAACC
TGAGCTCTAAGCCGGAGCGGGACGTGCTCATGCAGGACTTCTACGTGGTGGAGAGCATCTTCTTCCCCAG
TGAAGGGAGCAACCTCACCCCTGCCCACCACTTCCAGGATTTCCGCTTCAAGACCTATGCACCTGTTGCC
TTCCGCTACTTCCGGGAGCTCTTTGGCATCCGTCCAGATGACTATTTGTACTCCCTGTGCAATGAGCCAC
TCATCGAGCTCTCCAACCCCGGGGCCAGCGGCTCTGTCTTCTACGTCACCAGCGACGACGAGTTCATCAT
CAAGACTGTCATGCACAAGGAGGCAGAGTTCCTGCAGAAGCTGCTGCCTGGCTACTACATGAATCTCAAC
CAGAACCCACGGACGCTGCTGCCCAAGTTCTATGGGCTGTACTGCGTGCAGTCTGGTGGCAAGAACATCC
GCGTGGTGGTCATGAACAATGTGCTGCCCCGTGTCGTCAAAATGCACCTTAAGTTCGACCTCAAGGGCTC
CACGTACAAGCGCAGGGCCAGCAAGAAGGAGAAGGAGAAGAGCCTGCCCACCTACAAGGACCTGGACTTC
ATGCAGGACATGCCCGAGGGGCTGCTGCTGGACTCCGACACCTTTGGCGCCCTGGTCAAGACGCTGCAGC
GAGACTGCCTGGTGCTGGAGAGCTTCAAGATAATGGACTACAGCCTGCTGCTGGGCGTGCACAACATCGA
TCAGCAGGAGCGAGAGCGCCAGGCCGAGGGCGCCCAGAGCAAGGCGGATGAGAAGCGGCCCGTGGCCCAG
AAGGCTCTGTATTCCACGGCCATGGAGTCTATCCAGGGCGGAGCTGCCCGTGGGGAGGCCATTGAGACAG
ATGACACGATGGGTGGGATTCCAGCAGTGAATGGGCGCGGGGAGCGACTGCTCCTCCACATCGGGATCAT
TGATATTCTGCAGTCCTACAGGTTCATCAAGAAGTTAGAACACACCTGGAAGGCCCTCGTCCATGATGGG
GACACTGTCTCAGTCCACCGGCCCAGCTTCTATGCAGAGCGCTTCTTCAAGTTCATGAGCAGCACGGTGT
TCCGGAAGAGTTCCTCCCTGAAGTCCTCTCCATCCAAGAAAGGACGTGGTGCCCTGCTGGCGGTCAAACC
CCTGGGGCCCACTGCTGCCTTCTCAGCCAGCCAGATCCCCAGCGAGAGAGAGGATGTGCAGTATGACCTG
CGGGGGGCCCGCAGCTACCCCACGCTTGAGGATGAAGGCCGGCCTGACCTCCTGCCCTGCACCCCACCGT
CCTTTGAGGAAGCCACCACAGCCTCCATCGCCACCACCCTGTCGTCCACCTCCCTCTCCATCCCAGAGCG
GTCCCCTTCAGATACATCGGAGCAGCCCCGGTACAGGCGGCGCACGCAGTCTTCAGGCCAGGATGGCCGG
CCCCAGGAGGAGCCCCATGCGGAAGACCTGCAGAAGATAACTGTGCAGGTGGAGCCAGTGTGCGGTGTGG
GGGTTGTCCCCAAGGAGGAGGGTGCAGGAGTGGAGGTCCCCCCATGTGGGGCATCGGCTGCAGCCTCTGT
GGAAATAGACGCTGCCAGCCAGGCCTCAGAGCCTGCCAGCCAGGCCTCAGATGAGGAGGATGCACCCTCT
ACAGACATCTATTTTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001146687

Insert Size: 1908 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001146687.2, NP_001140159.1
RefSeq Size:	4222 bp
RefSeq ORF:	1908 bp
Locus ID:	18717
UniProt ID:	O70161
Cytogenetics:	10 C1
Gene 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] Transcript Variant: This variant (2) lacks two alternate in-frame exons in the 3' coding region, compared to variant 3. The encoded protein (isoform 2) is shorter, compared to isoform 3.