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Product datasheet for MC223033

Pik3cg (NM_001146201) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pik3cg (NM_001146201) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pik3cg
Synonyms:	5830428L06Rik; p110gamma; PI3Kgamma
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223033 representing NM_001146201 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAGCTGGAGAACTATGAACAACCGGTGGTTCTAAGAGAGGACAACCTCCGCCGGCGCCGGAGGATGA AGCCACGCAGCGCAGCAGGCAGCCTGTCTTCCATGGAGCTCATCCCCATTGAGTTCGTACTGCCCACCAG CCAGCGCATCAGCAAGACTCCAGAAACAGCGCTGCTGCATGTGGCTGGCCATGGCAATGTGGAACAGATG AAAGCTCAGGTGTGGCTGCGCGCACTGGAGACCAGTGTGGCTGCGGAGTTCTACCACCGATTGGGCCCGG ACCAATTCCTCCTGCTCTACCAGAAGAAAGGACAATGGTATGAGATCTATGACAGGTACCAAGTGGTGCA GACCCTAGACTGCCTGCATTACTGGAAGTTGATGCACAAGAGCCCTGGCCAGATCCACGTGGTACAGCGA CACGTACCTTCTGAGGAGACCTTGGCTTTCCAGAAGCAGCTCACCTCCCTGATTGGCTATGACGTCACTG ACATCAGCAATGTGCACGATGATGAGCTAGAGTTCACTCGCCGCCGTCTGGTTACGCCCCGCATGGCTGA AGTGGCTGGCCGGGATGCCAAACTCTATGCTATGCACCCTTGGGTAACGTCCAAACCTCTCCCAGACTAC CTGTCAAAAAAGATTGCCAACAACTGCATCTTCATCGTCATCCACCGCGGTACCACCAGCCAAACCATCA AGGTCTCCGCAGATGATACTCCTGGTACCATCCTCCAGAGCTTCTTCACCAAGATGGCCAAGAAGAAGTC CCTAATGAATATCTCAGAAAGTCAAAGTGAGCAGGATTTTGTATTGCGGGTTTGTGGCCGCGATGAGTAC CTGGTGGGTGAAACACCCCTCAAAAATTTCCAGTGGGTGAGGCAGTGCCTCAAGAACGGAGATGAAATAC ACCTGGTGCTCGACACGCCTCCAGACCCAGCCCTTGATGAGGTGAGGAAGGAAGAATGGCCGCTGGTGGA TGACTGCACTGGAGTCACCGGCTACCACGAGCAGCTGACCATCCATGGCAAGGACCACGAGAGTGTGTTC ACAGTGTCTTTGTGGGACTGCGACCGAAAGTTCAGGGTCAAGATCAGAGGCATTGATATCCCTGTCCTGC CTCGGAACACCGACCTCACTGTGTTTGTGGAAGCGAACATCCAGCACGGGCAACAAGTCCTCTGCCAAAG GAGAACCAGCCCTAAGCCCTTCGCAGAAGAGGTACTCTGGAATGTGTGGCTGGAGTTTGGCATCAAAATC AAAGACTTGCCCAAAGGGGCTCTATTGAACCTACAGATCTACTGCTGCAAAACCCCATCACTGTCCAGCA AGGCTTCTGCAGAGACTCCAGGCTCCGAGTCCAAGGGCAAAGCCCAGCTTCTCTATTACGTGAACTTGCT GTTAATAGACCACCGTTTCCTCCTCCGCCACGGGGACTATGTGCTCCACATGTGGCAGATATCTGGCAAG GCAGAGGAGCAGGGCAGCTTCAATGCTGACAAGCTCACATCCGCAACCAATCCTGACAAGGAGAACTCAA

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TGTCCATTTCCATCCTGCTGGACAATTACTGTCACCCCATAGCTTTGCCTAAGCACCGGCCCACCCCTGA
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TCTGCAGAGACAAAGGATGGACTGTGCAGTTTAACTGGTTCCTACATCTTGTTCTTGGCATCAAACAAGG
AGAAAAGCACTCCGCTTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001146201

Insert Size: 3309 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_001146201.1, NP_001139673.1

RefSeq Size:	6690 bp
RefSeq ORF:	3309 bp
Locus ID:	30955
UniProt ID:	Q9JHG7
Cytogenetics:	12 A3
Gene Summary:	Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns(4,5)P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Links G-protein coupled receptor activation to PIP3 production. Involved in immune, inflammatory and allergic responses. Modulates leukocyte chemotaxis to inflammatory sites and in response to chemoattractant agents. May control leukocyte polarization and migration by regulating the spatial accumulation of PIP3 and by regulating the organization of F-actin formation and integrin-based adhesion at the leading edge. Controls motility of dendritic cells. Together with PIK3CD is involved in natural killer (NK) cell development and migration towards the sites of inflammation. Participates in T-lymphocyte migration. Regulates T-lymphocyte proliferation and cytokine production. Together with PIK3CD participates in T-lymphocyte development. Required for B-lymphocyte development and signaling. Together with PIK3CD participates in neutrophil respiratory burst. Together with PIK3CD is involved in neutrophil chemotaxis and extravasation. Together with PIK3CB promotes platelet aggregation and thrombosis. Regulates alpha-IIb/beta-3 integrins (ITGA2B/ITGB3) adhesive function in platelets downstream of P2Y12 through a lipid kinase activity-independent mechanism. May have also a lipid kinase activity-dependent function in platelet aggregation. Involved in endothelial progenitor cell migration. Negative regulator of cardiac contractility. Modulates cardiac contractility by anchoring protein kinase A (PKA) and PDE3B activation, reducing cAMP levels. Regulates cardiac contractility also by promoting beta-adrenergic receptor internalization by binding to GRK2 and by non-muscle tropomyosin phosphorylation. Also has serine/threonine protein kinase activity: both lipid and protein kinase activities are required for beta-adrenergic receptor endocytosis. May also have a scaffolding role in modulating cardiac contractility. Contribute to cardiac hypertrophy under pathological stress. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which the PI3K gamma complex is activated by RAPGEF3 and which is involved in angiogenesis (By similarity).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1, 2 and 3 encode the same protein.