

## Product datasheet for **RC202039**

### PI 3 Kinase p55 gamma (PIK3R3) (NM\_003629) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase p55 gamma (PIK3R3) (NM_003629) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PI 3 Kinase p55 gamma
Synonyms:	p55; p55-GAMMA; p55PIK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC202039 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTACAATACGGTGTGGAGTATGGACCGCATGACGCAGACTGGAGGGAGGTGATGATGCCTATTTCGA  
 CAGAACTGATATTTTATATTGAAATGGATCCTCCAGCTCTCCACCAAAGCCACCTAAGCCAATGACTTC  
 AGCAGTCCAAATGGAATGAAGGACAGTTCTGTTTCTTTCAGGATGCAGAATGGTACTGGGGGATATT  
 TCAAGGGAGGAGTAAATGACAAATGCGGGATATGCCAGATGGGACCTTCTTGGTCCGAGATGCCTCAA  
 CAAAAATGCAGGGAGATTACTTTGACTTTGCGGAAGGGAGGCAATAATAAGTTAATAAAGATCTATCA  
 CCGGGATGGTAAATATGGCTTTTCTGATCCTCTGACATTAATCCGTGGTGGAGCTCATTAACCACTAT  
 CACCATGAATCTTGTCTCAGTACAATCCAACTTGATGTGAAGCTGATGTACCCAGTGTCCAGATACC  
 AACAGGATCAGTTGGTAAAAGAAGATAATTGATGCAGTAGGTAAGGTAAGGTAAGGTAAGGTAAGGTAAGG  
 GTATCAGGAGAAGAGTAAAGATGATAGGCTGTATGAAGAATACTAGAACATCCAGGAAATACAG  
 ATGAAGAGGACTGCAATAGAAGCTTTAATGAAACAATTAATAATTTGAAGAGCAGTGTACACACAAG  
 AACACATAGCAAAGAATATATTGAGCGATTCGACAGAGAGGGGAATGAAAGGAGATTGAACGAATTAT  
 GATGAATTATGATAAATTGAAATCACGTCTGGGTGAGATTCATGATAGCAAAATGCGTCTAGAGCAGGAT  
 TTGAAGAATCAAGCTTTGGACAACCGAGAAATAGATAAAAAATGAATAGCATCAAACCTGACCTGATCC  
 AGCTGCGAAAGATCCGAGATCAACACCTTGTATGGCTCAATCACAAAGGAGTGAGACAGAAACGCCTGAA  
 TGTCTGGCTGGGAATTAAGAATGAGGATGCTGCTGAGAATTTTTATCAATGAGGAAGTGAACCTG  
 CCCATTATGATGAGAAAACCTGGTTTGTGAGGATATCAATCGAGTACAAGCAGAGGACTTGCTTTATG  
 GAAACCTGATGGTGCATTCTTAATTCGTGAGAGTAGCAAGAAAGGATGCTATGCTTGTGGTGGC  
 CGATGGGGAAGTGAAGCACTGTGTGATCTACAGCACTGCTCGGGCTATGGCTTTGCAGAGCCCTACAAC  
 CTGTACAGCTCTCTGAAGGAGCTAGTGCTCCATTACCAGCAGACATCCTTGGTTCAGCACACGACTCCC  
 TCAACGTCAGGCTTGCTACCCTGTTTCATGCACAGATGCCCTCGCTTTGCAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC202039 protein sequence  
 Red=Cloning site Green=Tags(s)

MYNTVWSMDRDDADWREVMMPYSTELEFYIEMDPPALPPKPPKPMTSAPVNGMKDSSVSLQDAEWYWGDI  
 SREEVNDKLRDMPDGTFLVRDASTKMQGDYTLTLRKGGNNKLIKIYHRDGKYGFSDPLTFNSVVELINHY  
 HHESLAQYNPKLDVKLMYPVSRVYQQDQLVKEDNIDAVGKQLQEYHSQYQEKSKKEYDRLYEEYTRTSQEIQ  
 MKRTAIEAFNETIKIFEEQCHTQEQHSKEYIERFRREGNEKEIERIMMNYDKLKSRLGEIHDSKMRLEQD  
 LKNQALDNREIDKMNISIKPDLIQLRKIRDQHLVWLNHKGVRQKRLNVWLGIKNEDAAENYFINEEDENL  
 PHYDEKTFWVEDINRVQAEDLLYGKPDGAFLIRESSKKGACYACSVVADGEVKHCVIYSTARGYGFAPYPN  
 LYSSLKELVLHYQQTSLVQHNSLNVRLAYPVHAQMPSLCR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6138\\_g04.zip](https://cdn.origene.com/chromatograms/mk6138_g04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_003629

**ORF Size:** 1383 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\\_003629.2](#), [NP\\_003620.2](#)

**RefSeq Size:** 5693 bp

**RefSeq ORF:** 1386 bp

**Locus ID:** 8503

**UniProt ID:** [Q92569](#)

**Cytogenetics:** 1p34.1

**Domains:** SH2

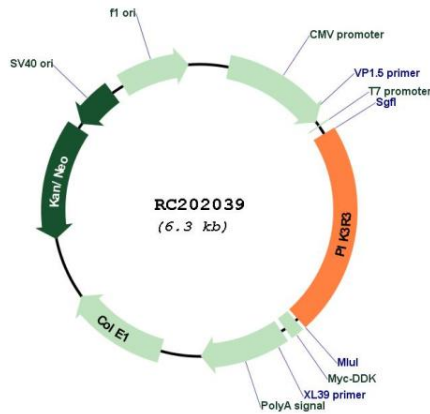
**Protein Families:** Druggable Genome

**Protein Pathways:** Acute myeloid leukemia, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, Leukocyte transendothelial migration, Melanoma, mTOR signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Phosphatidylinositol signaling system, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway, Type II diabetes mellitus, VEGF signaling pathway

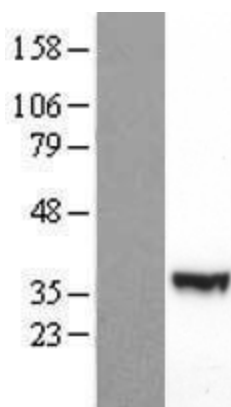
**MW:** 54.4 kDa

**Gene Summary:** Phosphatidylinositol 3-kinase (PI3K) phosphorylates phosphatidylinositol and similar compounds, which then serve as second messengers in growth signaling pathways. PI3K is composed of a catalytic and a regulatory subunit. The protein encoded by this gene represents a regulatory subunit of PI3K. The encoded protein contains two SH2 domains through which it binds activated protein tyrosine kinases to regulate their activity. [provided by RefSeq, Jun 2016]

**Product images:**



Circular map for RC202039



Western blot validation of overexpression lysate (Cat# [LY426469]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225775] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).