

Product datasheet for **SC115320**

PI 3 Kinase p85 alpha (PIK3R1) (NM_181523) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase p85 alpha (PIK3R1) (NM_181523) Human Untagged Clone
Tag:	Tag Free
Symbol:	PI 3 Kinase p85 alpha
Synonyms:	AGM7; GRB1; IMD36; p85; p85-ALPHA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene ORF sequence for NM_181523 edited
ATGAGTGTGAGGGGTACCAGTACAGAGCGCTGTATGATTATAAAAAGGAAAGAGAAGAA
GATATTGACTTGCACCTTGGGTGACATATTGACTGTGAATAAAGGGTCCTTAGTAGCTCTT
GGATTCAGTGATGGACAGGAAGCCAGGCCTGAAGAAATTGGCTGGTTAAATGGCTATAAT
GAAACCACAGGGGAAAGGGGGGACTTCCGGGAACCTTATGTAGAATATATTGGAAGGAAA
AAAATCTCGCCTCCACACCAAAGCCCCGGCCACCTCGGCCTCTCTCTGTTGCACCAGGT
TCTTCGAAAACCTGAAGCAGATGTTGAACAACAAGCTTTGACTCTCCCGGATCTTGCAGAG
CAGTTTGCCCTCCTGACATTGCCCGCCTCTTCTTATCAAGCTCGTGAAGCCATTGAA
AAGAAAGGTCTGGAATGTTCAACTCTATACAGAACACAGAGCTCCAGCAACCTGGCAGAA
TTACGACAGCTTCTTGATTGTGATACACCCTCCGTGGACTTGGAAATGATCGATGTGCAC
GTTTTGGCTGACGCTTTCAAACGCTATCTCTGGACTTACCAAATCCTGTCATTCCAGCA
GCCGTTTACAGTGAAATGATTTCTTTAGCTCCAGAAGTACAAAGCTCCGAAGAATATATT
CAGCTATTGAAGAAGCTTATTAGTTCGCCTAGCATACCTCATCAGTATTGGCTTACGCTT
CAGTATTTGTTAAAACATTTCTTCAAGCTCTCTCAAACCTCCAGCAAAAATCTGTTGAAT
GCAAGAGTACTCTGAAATTTTCAGCCCTATGCTTTTCAGATTCTCAGCAGCCAGCTCT
GATAATACTGAAAACCTCATAAAAGTTATAGAAATTTTAACTCAACTGAATGGAATGAA
CGACAGCCTGCACCAGCACTGCCTCCTAAACCACCAAACCTACTACTGTAGCCAACAAC
GGTATGAATAACAATATGTCCTTACAAGATGCTGAATGGTACTGGGGAGATATCTCGAGG
GAAGAAGTGAATGAAAACTTCGAGATACAGCAGACGGGACCTTTTTTGGTACGAGATGCG
TCTACTAAAATGCATGGTGATTACTCTTACACTAAGGAAAGGGGAAATAACAAATTA
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GTGGTTGAATTAATAAACCACTACCGGAATGAATCTCTAGCTCAGTATAATCCAAATTG
GATGTGAAATTAATTAACCACTACCGGAATGAATCTCTAGCTCAGTATAATCCAAATTG
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CGAGAATATGATAGATTATGAAAGATATACCCGCACATCCCAGGAAATCCAAATGAAA
AGGACAGCTATTGAAGCATTTAATGAAACCATAAAAAATTTTGAAGAACAGTGCCAGACC
CAAGAGCGGTACAGCAAAGAATACATAGAAAAGTTTAAACGTGAAGGCAATGAGAAAGAA
ATACAAAGGATTATGCATAATTATGATAAGTTGAAGTCTCGAATCAGTGAATTTATGAC
AGTAGAAGAAGATTGGAAGAAGACTTGAAGAAGCAGGCAGCTGAGTATCGAGAAATTGAC
AAACGTATGAACAGCATTAAACCAGACCTTATCCAGCTGAGAAAAGACGAGAGACCAATAC
TTGATGTGGTTGACTCAAAAAGGTGTTCCGCAAAGAAGTTGAACGAGTGGTTGGGCAAT
GAAAACACTGAAGACCAATATTCAGTGGTGAAGATGATGAAGATTTGCCCATCATGAT
GAGAAGACATGGAATGTTGGAAGCAGCAACCGAAACAAAGCTGAAAACCTGTTGGCAGGG
AAGCGAGATGGCACTTTTCTGTCCGGGAGAGCAGTAAACAGGGCTGCTATGCCTGCTCT
GTAGTGGTGGACGGCAAGTAAAGCATTGTGTCATAAACAAAACAGCAACTGGCTATGGC
TTTGCCGAGCCCTATAACTTGTACAGCTCTCTGAAAGAAGTGGTGTACATTACCAACAC
ACCTCCCTTGTGCAGCACAAAGACTCCCTCAATGTCACACTAGCCTACCCAGTATATGCA
CAGCAGAGGCGATGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_181523 unedited
 AGTATTTTGAATACGACTCACTTATAGGGCGGCCGGAATTCGCACGAGGGCGGAGTTG
 GAGGAAGCAGCGGCAGCGGCGAGGGCGGCAGGCTAGCTGTGCGGAGACGGCAAGCACGGAT
 CGGGCACGGCCGGCGGGTTCGACGCCGGCTGGAGGCCGGTTCGGAACCGAGCGGGCAGGAG
 GCCACCCTGCAGCGCGGGCCCCGAGAGGAAGGAAGCCGGCGGGCGGGGTAGGTGAAGC
 TCGTGTGTGGAGTGCCACGGTACAATCAGACGACAGATGGACAGTGTGACAAAAGTGTCA
 GAAAGGATTGGGCTCGCTGTGAGAGTCAGCCTGGATTCAAAGTGTGACAAGTTGCTGA
 AAAGGAAGCCAGTGAGAGGACTGTGGCAGCAGAGGAAGTGGAGCCCTGTCTTCGGTCAC
 ACCATTGATGGAGGACAGATGGACAGCCGTATGGCCAGTCACCTCTCTCTTAAACCTTT
 GGAGAGTGGTCCTTTGTCTCTGCTGGACACATAATAGGAATTCTAACACATTCTCTGAA
 TTCACTTTTCATAAAAACGTAATCAGACTGCTCTGTACAACCAGGCTCAACTGTTGCA
 TGGTAGCAGATTTGCAAACATGAGTGTGAGGGGTACCAGTACAGAGCGCTGTATGATTA
 TAAAAAGAAAGAGAAGAAGATATTGACTTGCACCTGGGTGACATATTGACTGTGAATAA
 AGGGTCCTTAGTAGCTCTGGATTGAGTGTGACAGGAAGCCAGCCTGTAGAANATGG
 CTGGTTAAATGGCTATAATGAAACCACAGGGGAAAGGGGGACTNTCCCGGGACTTATGT
 AGGATATATTGGAAGGAAAAAATCTCGCTTCCACACCAAAGCCCGGCACCTCGGCT
 CTNNCTGTGCACCAGTCTTTCGAAACTGAAGCAGATGTTGACAACAGCTTTGN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_181523 unedited
 NNNTTTTACTTTGAACCCGCGGCCCATNCTAGGATCGAGTTTTTTTTTTTTTTTTTTAA
 ATATTTTCATAGTTTTAATCTGAAGCCATTTTTTTTTTTTACTGGCATCCTGTACATTTA
 CTTTTAAAAAAGGATAACAAAAATGAATATTAACAAAAATCCGGGACAACAATTTTTCA
 AGCAACAAAAACTGGGGTGGGGAAGCTTATTCTGAAGGTACATTTAAACTGAAATAACA
 ACTTAATGAAAATTAATAATTGCATAGCGCTGTGAATTTAGCCTTCAGCAAAAACAAAACA
 GAAGCTATTTGGTATTGATACAAATCCATCTATTTGATAGTTAGTCATCCAATATTATGT
 ACATATTTTATATACTGAATGTCATTTTAAAGTCCTGTTTTCCAACTCCATTTTTCTGTT
 GCTGGGTTTTGTTTTTGACAAGTTAAACACTTTCTGGCACTTTCTATGACAGAATTTCT
 TTCTGAACATACATGAACTGACATTCTCCAAAGCGTCCCTTGTGAGTGGACGTGCCTTT
 CTGCTACATATCGTTTCAATTTGTTACAAAATGAAATAATCCACAGTGCGATGTGTCTGGT
 CCACCGTGACAGCAACATCCAGGCTAAACCAGGCTGGACCAAACCTTCTCAGGCCAGGG
 TTCTTNTGCCTCTCTCCTCCGCTCTCCAGAGTCCCAACTTTTCAGCTGGTAAAGCTTCA
 GAAAGCATTAAACAAGCACCATGTTAAAGGCCTTTTGTCCCTGCCGAGAGATTTTGCA
 TTTCTTTTCTCTTTGNGTGNATGGGGNTGGGGCTTTAAATAAACCAAAGAAAAAGAAAA
 GAAGGATAAGCACTCACTTAGAACGTGTGCATCTACACCTTAGCTGAATGGCTTCCTA
 CTTT

Restriction Sites:

NotI-NotI

ACCN:

NM_181523

Insert Size:

3890 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_181523.1 , NP_852664.1
RefSeq Size:	6453 bp
RefSeq ORF:	2175 bp
Locus ID:	5295
UniProt ID:	P27986
Cytogenetics:	5q13.1
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

Gene Summary:

Phosphatidylinositol 3-kinase phosphorylates the inositol ring of phosphatidylinositol at the 3-prime position. The enzyme comprises a 110 kD catalytic subunit and a regulatory subunit of either 85, 55, or 50 kD. This gene encodes the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in this gene has been associated with insulin resistance. Alternative splicing of this gene results in four transcript variants encoding different isoforms. [provided by RefSeq, Jun 2011]

Transcript Variant: This variant (1) encodes the longest isoform (1) of this protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.