

Product datasheet for **SC311495**

PIK3CD (NM_005026) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3CD (NM_005026) Human Untagged Clone
Tag:	Tag Free
Symbol:	PIK3CD
Synonyms:	APDS; IMD14; IMD14A; IMD14B; p110D; P110DELTA; PI3K; ROCHIS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_005026 edited
 CCGCCCAGCCCTGCCAGCTGCGCCGGGACGATAAGGAGTCAGGCCAGGGCGGGATGACAC
 TCATTGATTCTAAAGCATCTTTAATCTGCCAGGCGGAGGGGCTTTGCTGGTCTTTCTTG
 GACTATTCCAGAGAGACAACACTGTCATCTGGGAAGTAACAACGCAGGATGCCCCCTGGGG
 TGGACTGCCCATGGAATTCTGGACCAAGGAGGAGAATCAGAGCGTTGTGGTTGACTTCC
 TGCTGCCACAGGGGTCTACCTGAACTTCCCTGTGTCCGCAATGCCAACCTCAGACCA
 TCAAGCAGCTGTGTGGCACCAGCCAGTATGAGCCGCTCTTCCACATGCTCAGTGGCC
 CCGAGGCATGTGTTACCTGCATCAACCAGACAGCGGAGCAGCAAGAGCTGGAGGACG
 AGCAACGGCGTCTGTGTGACGTGCAGCCCTTCTGCCGCTCTGCGCCTGGTGGCCCGTG
 AGGGCGACCGGTGAAGAAGCTCATCAACTCACAGATCAGCCTCCTCATCGCAAAGGCC
 TCCACGAGTTTGACTCCTTGTGCGACCCAGAAGTGAACGACTTTTCCGCCAAGATGTGCC
 AATTCTGCGAGGAGGCGCCGCCCGCCGCGCAGCAGCTGGGCTGGGAGGCCTGGCTGCAGT
 ACAGTTTTCCCTGCAGCTGGAGCCCTCGGCTCAAACCTGGGGGCTGGTACCCTGCGGC
 TCCCGAACCGGGCCCTTCTGGTCAACGTTAAGTTTGAGGGCAGCGAGGAGAGCTTCACT
 TCCAGGTGTCCACCAAGGACGTGCCGCTGGCGCTGATGGCCTGTGCCCTGCGGAAGAAGG
 CCACAGTGTCCGGCAGCCGCTGGTGGAGCAGCCGGAAGACTACACGCTGCAGGTGAACG
 GCAGGCATGAGTACCTGTATGGCAGTACCCGCTCTGCCAGTTCAGTACATCTGCAGCT
 GCCTGCACAGTGGGTTGACCCCTCACCTGACCATGGTCCATTCTCTCCATCTCGCCA
 TGCGGGATGAGCAGAGCAACCCTGCCCCAGGTCCAGAAACCGGTGCCAAACCCTC
 CCATTCTGCGAAGAAGCCTTCTCTGTGTCCCTGTGGTCCCTGGAGCAGCCGTTCCGCA
 TCGAGCTCATCCAGGCGAGCAAAGTGAACGCCGACGAGCGGATGAAGCTGGTGGTGCAGG
 CCGGGCTTTTCCACGGCAACGAGATGCTGTGCAAGACGGTGTCCAGCTCGGAGGTGAGCG
 TGTGCTCGGAGCCGCTGTGGAAGCAGCGGCTGGAGTTCGACATCAACATCTGCGACCTGC
 CCCGATGGCCGCTCTGCTTTGCGCTGTACGCCGTGATCGAGAAAGCAAGAAGGCTC
 GCTCCACCAAGAAGAAGTCCAAGAAGGCGGACTGCCCCATTGCCTGGGCCAACCTCATGC
 TGTTTGACTACAAGGACCAGCTTAAGACCGGGGAACGCTGCCTTACATGTGCCCTCCG
 TCCAGATGAGAAGGGCAGCTGTGAACCCACGGGCACTGTGCGCAGTAACCCCAACA



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CGGATAGCGCCGCTGCCCTGCTCATCTGCCTGCCCGAGGTGGCCCCGACCCCGTGTACT
 ACCCCGCCCTGGAGAAGATCTTGGAGCTGGGGCGACACAGCGAGTGTGTGCATGTCACCG
 AGGAGGAGCAGCTGCAGCTGCGGAAATCCTGGAGCGCGGGGTCTGGGGAGCTGTATG
 AGCACGAGAAGGACCTGGTGTGGAAGCTGCGGCATGAAGTCCAGGAGCACTTCCCGGAGG
 CGTAGCCCGGCTGCTGCTGGTCAACAAGTGAACAAGCATGAGGATGTGGCCAGATGC
 TCTACCTGCTGTCTCCTGGCCGGAGCTGCCCGTCTGAGCGCCCTGGAGCTGCTAGACT
 TCAGCTTCCCGATTGCCACGTAGGCTCCTTCGCCATCAAGTCGTCGCGAAACTGACGG
 ACGATGAGCTGTTCCAGTACCTGCTGCAGCTGGTGCAGGTGCTCAAGTACGAGTCTTACC
 TGGACTGCGAGCTGACCAAATTCCTGCTGGACCGGCCCTGGCCAACCGCAAGATCGGCC
 ACTTCTTTTCTGGCACCTCCGCTCCGAGATGCACGTGCCGTCCGTGGCCCTGCGCTTCG
 GCCTCATCTGGAGGCCTACTGCAGGGCAGCACCCACCACATGAAGGTGCTGATGAAGC
 AGGGGGAAGCACTGAGCAAAGTGAAGGCCCTGAATGACTTCGTCGAAGCTGAGCTCTAGA
 AGACCCCAAGCCCGAGCAAGGAGCTGATGCACTTGTGCATGCGGCAGGAGGCCTACC
 TAGAGGCCCTCTCCACCTGCAGTCCCACTCGACCCAGCACCTGCTGGCTGAAGTCT
 GCGTGGAGCAGTGACCTTCATGGACTCCAAGATGAAGCCCTGTGGATCATGTACAGCA
 ACGAGGAGGCAGGCAGCGCGGCAGCGTGGGCATCATCTTAAGAACGGGGATGACCTCC
 GGCAGGACATGCTGACCTGCAGATGATCCAGCTCATGGACGTCCTGTGGAGCAGGAGG
 GGCTGGACCTGAGGATGACCCCTATGGCTGCCTCCCCACCGGGGACCGCACAGGCCTCA
 TTGAGGTGGTACTCCGTTTCAGACACCATCGCCAACATCCAACCAACAAGAGCAACATGG
 CAGCCACAGCCGCTTCAACAAGGATGCCCTGCTCAACTGGTGAAGTCCAAGAACCCTGG
 GGGAGGCCCTGGATCGAGCCATTGAGGAGTTCACCCTCTCTGTGCTGGCTATTGTGTGG
 CCACATATGTGCTGGGCATTGGCGATCGGCACAGCGACAACATCATGATCCGAGAGAGTG
 GGCACTGTTCCACATTGATTTTGGCCACTTTCTGGGGAATTTCAAGACCAAGTTTGAA
 TCAACCGGAGCGTGTCCATTATCCTCACCTACGACTTTGTCCATGTGATTACAGCAGG
 GGAAGACTAATAATAGTGAGAAATTTGAACGGTTCGGGGCTACTGTGAAAGGGCTACA
 CCATCCTGCGGCGCCACGGGCTTCTTCTCCACCTCTTTGCCCTGATGCGGGCGGCAG
 GCCTGCCTGAGCTCAGCTGCTCCAAAGACATCCAGTATCTCAAGGACTCCCTGGCACTGG
 GGAAAACAGAGGAGGAGGCACTGAAGCACTTCCGAGTGAAGTTTAAAGAACCCCTCCGTG
 AGAGCTGAAAACCAAAGTGAAGTGGCTGGCCACAACGTGTCCAAGACAACAGGCAGT
 AGTGGCTCCTCCAGCCCTGGGCCAAGAGGAGGCGGCTGCGGGTCTGGGGACCAAGCA
 CATTGGTCTAAAGGGGCTGAAGAGCCTGAACTGCACCTAACGGGAAAGAACCGACATGG
 CTGCCCTTTGTTTACACTGGTTATTTATTTATGACTTGAATAGTTTAAAGGAGCTAAACA
 GCCATAAACGGAAACGCCTCCTTCATGCAGCGGGTGTGGGCCCCCGAGGCTGCACC
 TGGCTCTCGGCTGAGGATTGTCACCCCAAGTCTTCCAGCTGGTGGATCTGGGCCAGCAA
 AGACTGTTCTCTCCCGAGGGAACCTTCTTCCAGGCCTCCCGCCAGACTGCCTGGGTCC
 TGGCGCTGGCGGTACCTGGTGCCTACTGTCCGACAGGATGCCTCGATCCTCGTGCAC
 CCACCTGTGTATCCTCCCTAGACTGAGTCTGGCAGCTCCCCGAGGCAGCCGGGTACC
 CT

Restriction Sites: Please inquire

ACCN: NM_005026

Insert Size: 3800 bp

OTI Disclaimer: 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.

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: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_005026.2.

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_005026.2](#), [NP_005017.2](#)

RefSeq Size: 5220 bp

RefSeq ORF: 3135 bp

Locus ID: 5293

UniProt ID: [O00329](#)

Cytogenetics: 1p36.22

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, Inositol phosphate metabolism, 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:

Phosphoinositide 3-kinases (PI3Ks) phosphorylate inositol lipids and are involved in the immune response. The protein encoded by this gene is a class I PI3K found primarily in leukocytes. Like other class I PI3Ks (p110-alpha p110-beta, and p110-gamma), the encoded protein binds p85 adapter proteins and GTP-bound RAS. However, unlike the other class I PI3Ks, this protein phosphorylates itself, not p85 protein.[provided by RefSeq, Jul 2010]