

Product datasheet for **RG214047**

PIK3CD (NM_005026) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3CD (NM_005026) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIK3CD
Synonyms:	APDS; IMD14; IMD14A; IMD14B; p110D; P110DELTA; PI3K; ROCHIS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214047 representing NM_005026 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCCCTGGGGTGGACTGCCCATGGAATTCTGGACCAAGGAGGAGAATCAGAGCGTTGTGGTTGACT
TCCTGCTGCCACAGGGGTCTACCTGAACCTCCCTGTGTCCCGCAATGCCAACCTCAGCACCATCAAGCA
GCTGCTGTGGCACCAGCGCCAGTATGAGCCGCTTCCACATGCTCAGTGGCCCCGAGGCCATGTGTTC
ACCTGCATCAACCAGACAGCGGAGCAGCAAGAGCTGGAGGACGAGCAACGGCGTCTGTGTGACGTGCAGC
CCTTCCTGCCCGTCTGCGCCTGGTGGCCCGTGGGGCGACCGCGTGAAGAAGCTCATCAACTCACAGAT
CAGCCTCCTCATCGGCAAAGGCCTCCACGAGTTTGACTCCTTGTGCGACCCAGAAGTGAACGACTTTCGC
GCCAAGATGTGCCAATTCTGCGAGGAGGCGGCCGCCCGCCGCGCAGCAGCTGGGCTGGGAGGCCTGGCTGC
AGTACAGTTTCCCCCTGCAGCTGGAGCCCTCGGCTCAAACCTGGGGGCTGGTACCTGCGGCTCCCGAA
CCGGGCCCTTCTGGTCAACGTTAAGTTTGGGGCAGCGAGGAGGCTTCCCTTCCAGGTGTCCACCAAG
GACGTGCCGCTGGCGCTGATGGCCTGTGCCCTGCGGAAGAAGGCCACAGTGTCCGGCAGCCGCTGGTGG
AGCAGCCGGAAGACTACACGCTGCAGGTGAACGGCAGGCATGAGTACCTGTATGGCAGCTACCCGCTCTG
CCAGTTCCAGTACATCTGCAGCTGCCTGCACAGTGGGTTGACCCCTCACCTGACCATGGTCCATTCTCC
TCCATCCTGCCATGCGGGATGAGCAGAGCAACCCTGCCCCAGTCCAGAAACCGCGTGCCAAACCAC
CTCCATTCTGCGAAGAAGCCTTCTCTGTGTCCCTGTGGTCCCTGGAGCAGCCGTTCCGCATCGAGCT
CATCCAGGGCAGCAAAGTGAACGCCGACGAGCGGATGAAGCTGGTGGTGCAGGCCGGGCTTTTCCACGGC
AACGAGATGCTGTGCAAGACGGTGTCCAGCTCGGAGGTGAGCGTGTGCTCGGAGCCCGTGTGGAAGCAGC
GGCTGGAGTTCGACATCAACATCTGCGACCTGCCCGCATGGCCCGTCTCTGCTTTGCGCTGTACGCCGT
GATCGAGAAAGCCAAGAAGGCTCGCTCCACCAAGAAGAAGTCCAAGAAGGCGGACTGCCCCATTGCCTGG
GCCAACCTCATGCTGTTTACTACAAGGACCAGCTTAAGACCGGGGAACGCTGCCTCTACATGTGGCCCT
CCGTCCAGATGAGAAGGGCGAGCTGCTGAACCCACGGGCACTGTGCGCAGTAACCCAAACACGGATAG
CGCCGCTGCCCTGCTCATCTGCCTGCCGAGGTGGCCCCGACCCCGTACTACCCCGCCTGGAGAAG



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ATCTTGAGCTGGGGCGACACAGCGAGTGTGTGCATGTCACCGAGGAGGAGCAGCTGCAGCTGCGGGAAA
 TCCTGGAGCGGGGGTCTGGGGAGCTGTATGAGCACGAGAAGGACCTGGTGTGGAAGCTGCGGCATGA
 AGTCCAGGAGCACTTCCCGGAGGCGCTAGCCCGGCTGCTGCTGGTCAACCAAGTGGAAACAAGCATGAGGAT
 GTGGCCAGATGCTCTACCTGCTGTGCTCCTGGCCGAGCTGCCCGTCTGAGCGCCCTGGAGCTGCTAG
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 GCTGTTCCAGTACCTGCTGCAGTGGTGCAGGTGCTCAAGTACGAGTCTACCTGGACTGCGGACTGACC
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 AGATGCAGTGGCGTCGGTGGCCCTGCGCTTCGGCCTCATCCTGGAGGCCCTACTGCAGGGGAGCACCCA
 CCACATGAAGGTGCTGATGAAGCAGGGGAAGCACTGAGCAAAGTGAAGGCCCTGAATGACTTCGTCGAA
 CTGAGCTCTCAGAAGACCCCAAGCCCCAGACCAAGGAGCTGATGCACTTGTGCATGCGGCAGGAGGCT
 ACCTAGAGGCCCTCTCCACCTGCAGTCCCCTGACCCAGCACCCCTGCTGGTGAAGTCTGCGTGGA
 GCAGTGCACCTTCATGGACTCCAAGATGAAGCCCTGTGGATCATGTACAGCAACGAGGAGGAGGAGCAGC
 GGGCGCAGCGTGGGCATCATCTTAAGAACGGGGATGACCTCCGGCAGGACATGCTGACCCTGCAGATGA
 TCCAGCTCATGGACGCTCCTGTGGAAGCAGGAGGGGCTGGACCTGAGGATGACCCCTATGGCTGCCTCCC
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 AAGAGCAACATGGCAGCCACAGCCGCTTCAACAAGGATGCCCTGCTCAACTGGCTGAAGTCCAAGAACC
 CGGGGGAGGCCCTGGATCGAGCCATTGAGGAGTTCACCCTCTCCTGTGCTGGCTATTGTGTGGCCACATA
 TGTGCTGGCATTGGCGATCGGCACAGCGACAACATCATGATCCGAGAGAGTGGGAGCTGTTCCACATT
 GATTTTGGCCACTTTCTGGGGAATTTCAAGACCAAGTTTGAATCAACCAGGAGCGTGTCCCATTCATCC
 TCACCTACGACTTTGTCCATGTGATTGACGAGGGGAAGACTAATAATAGTGAGAAATTTGAACGGTTCGG
 GGGCTACTGTGAAAGGGCCTACACCATCCTGCGGCCACGGGCTTCTTCTCCACCTTTTGGCCCTG
 ATGCGGGCGCAGGCTGCTGAGCTCAGCTGCTCCAAAGACATCCAGTATCTCAAGGACTCCCTGGCAC
 TGGGAAAAACAGAGGAGGAGGCACTGAAGCACTCCGAGTGAAGTTAACGAAGCCCTCCGTGAGAGCTG
 GAAAACCAAAGTGAAGTGGCTGGCCACACAGTGTCCAAGACAACAGGCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG214047 representing NM_005026
 Red=Cloning site Green=Tags(s)

MPPGVDCPMEFWTKEENQSVVVDLPTGVYLNFPVSRNANLSTIKQLLWHRAQYEPLFHMLSGPEAYVF
 TCINQTAEQELEDQRRLCDVQPFLPVLRLVAREGDRVKKLINSQISLLIGKGLHEFDSLCDPEVNDFR
 AKMCQFCEEAAARRQQLGWEAWLQYSFPLQLEPSAQTWGPGLRPNRALLVNVKFEGSEESFTFQVSTK
 DVPLALMACALRKKATVFRQPLVEQPEDYTLQVNGRHEYL YGSYPLCQFQYICSLHSGLTPHLTMVHSS
 SILAMRDEQSNPAPQVQKPRAKPPP IPAKKPSSVSLWSLEQPFRIELIQGSKVNADERMMLVQAGLFHG
 NEMLCKTVSSSEVSVCSPEVWKQRLEFDINICDLPRMARL CFALYAVIEKAKKARSTKKKSKKADCP IAW
 ANLMLFDYKDLKTGERCLYMWPSVPDEKGELLNPTGTVRSNPNTDSAAALLICLPEVAPHPVYYPALEK
 ILELGRHSECVHVTEEEQLQLREILERRGSGELYEHEKDLVWKL RHEVQEHFPEALARLLLVTKWNKHED
 VAQMLYL LCSWPELPVLSALELLDF SFPDCHVGSFAIKSLRKL TDELFQYLLQLVQVLKYESYLDCELT
 KFLLDRALANRKIGHFLFWHLRSEMHPVSVALRFGLILEAYCRGSTHMKVLMKQGEALSKLKALNDFVK
 LSSQKTPKPQTKELMHLCMRQEAYLEALSHLQSPLDPSTLLAEVCVEQCTFMDSKMKPLWIMYSNEEAGS
 GGSVGIIFKNGDDL RQDMLTLQMIQLMDVLWKQEGDLRMTYPGCLPTGDR TGLIEVVLRSDTIANIQLN
 KSNMAATAAFNKDALLNLWKSKNPGEALDRAIEEFTLSCAGYCVATYVVLGIGDRHSDNIMIRESGQLFHI
 DFGHFLGNFKTKFGINRERVPFILTYDFVHVIQGGKTNNSEKFERFRGYCERAYTILRRHGLLFLHLFAL
 MRAAGLPELSCSKDIQYLKDSLALGKTEEEALKHFRVKFNEALRESWKTKVNWLAHNVSVDNRQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_005026

ORF Size: 3132 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.

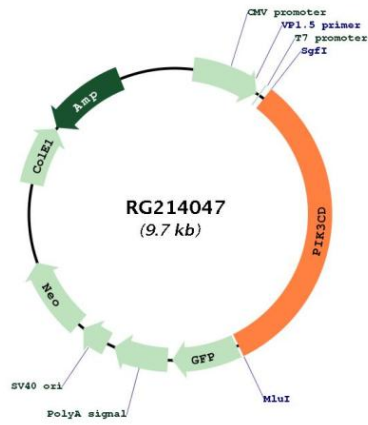
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: 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:	<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_005026.5
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]

Product images:



Circular map for RG214047