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Product datasheet for RC214047

PIK3CD (NM_005026) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3CD (NM_005026) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIK3CD
Synonyms:	APDS; IMD14; IMD14A; IMD14B; p110D; P110DELTA; PI3K; ROCHIS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214047 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCCCTGGGGTGGACTGCCCCATGGAATTCTGGACCAAGGAGGAGAATCAGAGCGTTGTGGTTGACT
TCCTGCTGCCCACAGGGGTCTACCTGAACTTCCCTGTGTCCCGCAATGCCAACCTCAGCACCATCAAGCA
GCTGCTGTGGCACCGCGCCCAGTATGAGCCGCTCTTCCACATGCTCAGTGGCCCCGAGGCCTATGTGTTC
ACCTGCATCAACCAGACAGCGGAGCAGCAAGAGCTGGAGGACGAGCAACGGCGTCTGTGTGACGTGCAGC
CCTTCCTGCCCGTCCTGCGCCTGGTGGCCCGTGAGGGCGACCGCGTGAAGAAGCTCATCAACTCACAGAT
CAGCCTCCTCATCGGCAAAGGCCTCCACGAGTTTGACTCCTTGTGCGACCCAGAAGTGAACGACTTTCGC
GCCAAGATGTGCCAATTCTGCGAGGAGGCGGCCGCCCGCCGGCAGCAGCTGGGCTGGGAGGCCTGGCTGC
AGTACAGTTTCCCCCTGCAGCTGGAGCCCTCGGCTCAAACCTGGGGGCCTGGTACCCTGCGGCTCCCGAA
CCGGGCCCTTCTGGTCAACGTTAAGTTTGAGGGCAGCGAGGAGAGCTTCACCTTCCAGGTGTCCACCAAG
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AGCAGCCGGAAGACTACACGCTGCAGGTGAACGGCAGGCATGAGTACCTGTATGGCAGCTACCCGCTCTG
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TCCATCCTCGCCATGCGGGATGAGCAGAGCAACCCTGCCCCCCAGGTCCAGAAACCGCGTGCCAAACCAC
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AACGAGATGCTGTGCAAGACGGTGTCCAGCTCGGAGGTGAGCGTGTGCTCGGAGCCCGTGTGGAAGCAGC
GGCTGGAGTTCGACATCAACATCTGCGACCTGCCCCGCATGGCCCGTCTCTGCTTTGCGCTGTACGCCGT
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GCCAACCTCATGCTGTTTGACTACAAGGACCAGCTTAAGACCGGGGAACGCTGCCTCTACATGTGGCCCT
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ATCTTGGAGCTGGGGCGACACAGCGAGTGTGTGCATGTCACCGAGGAGGAGCAGCTGCAGCTGCGGGAAA
TCCTGGAGCGGCGGGGGTCTGGGGAGCTGTATGAGCACGAGAAGGACCTGGTGTGGAAGCTGCGGCATGA
AGTCCAGGAGCACTTCCCGGAGGCGCTAGCCCGGCTGCTGCTGGTCACCAAGTGGAACAAGCATGAGGAT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214047 protein sequence
Red=Cloning site Green=Tags(s)

MPPGVDCPMEFWTKEENQSVVVDFLLPTGVYLNFPVSRNANLSTIKQLLWHRAQYEPLFHMLSGPEAYVF
TCINQTAEQQELEDEQRRLCDVQPFLPVLRLVAREGDRVKKLINSQISLLIGKGLHEFDSLCDPEVNDFR
AKMCQFCEEAAARRQQLGWEAWLQYSFPLQLEPSAQTWGPGTLRLPNRALLVNVKFEGSEESFTFQVSTK
DVPLALMACALRKKATVFRQPLVEQPEDYTLQVNGRHEYLYGSYPLCQFQYICSCLHSGLTPHLTMVHSS
SILAMRDEQSNPAPQVQKPRAKPPPIPAKKPSSVSLWSLEQPFRIELIQGSKVNADERMKLVVQAGLFHG
NEMLCKTVSSSEVSVCSEPVWKQRLEFDINICDLPRMARLCFALYAVIEKAKKARSTKKKSKKADCPIAW
ANLMLFDYKDQLKTGERCLYMWPSVPDEKGELLNPTGTVRSNPNTDSAAALLICLPEVAPHPVYYPALEK
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VAQMLYLLCSWPELPVLSALELLDFSFPDCHVGSFAIKSLRKLTDDELFQYLLQLVQVLKYESYLDCELT
KFLLDRALANRKIGHFLFWHLRSEMHVPSVALRFGLILEAYCRGSTHHMKVLMKQGEALSKLKALNDFVK
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GGSVGIIFKNGDDLRQDMLTLQMIQLMDVLWKQEGLDLRMTPYGCLPTGDRTGLIEVVLRSDTIANIQLN
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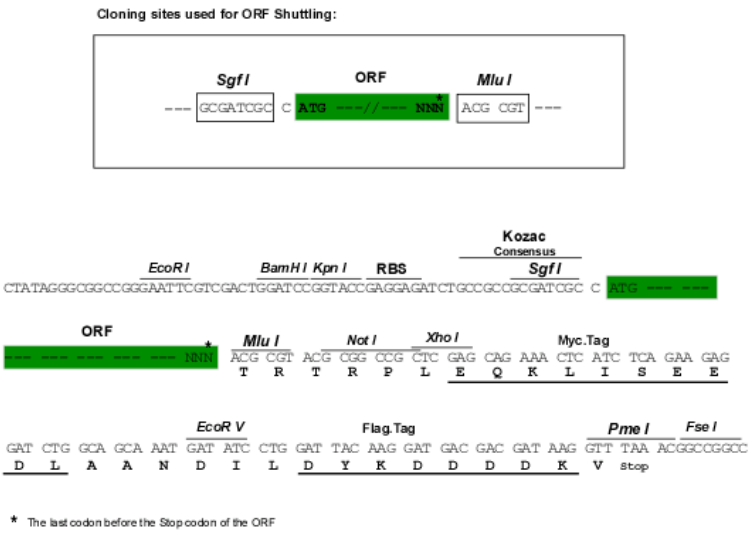
DFGHFLGNFKTKFGINRERVPFILTYDFVHVIQQGKTNNSEKFERFRGYCERAYTILRRHGLLFLHLFAL
MRAAGLPELSCSKDIQYLKDSLALGKTEEEALKHFRVKFNEALRESWKTKVNWLAHNVSKDNRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6608_f05.zip

Restriction Sites: SgfI-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.

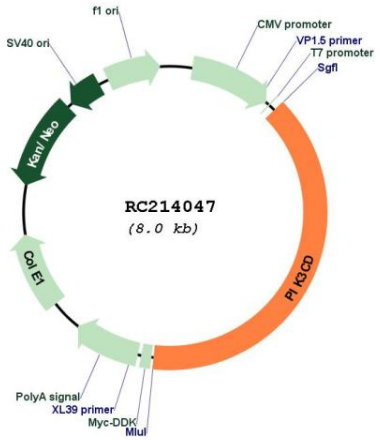
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

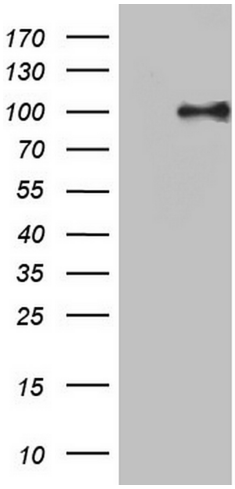
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005026.5
RefSeq Size:	5411 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
MW:	119.5 kDa
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]

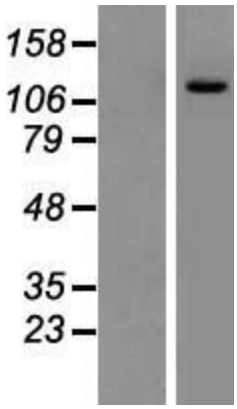
Product images:



Circular map for RC214047



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PIK3CD (Cat# RC214047, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PIK3CD(Cat# [TA801842]). Positive lysates [LY417588] (100ug) and [LC417588] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417588]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214047 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).