OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC214125

PIK3AP1 (NM_152309) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIK3AP1 (NM_152309) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIK3AP1
Synonyms:	BCAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214125 representing NM_152309
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGCCTCAGGGGTGCCCAGAGGATGCGACATCCTCATCGTCTACAGCCCGGATGCCGAGGAATGGT
GCCAGTACCTGCAGACCCTGTTCCTGTCCAGTCGGCAGGTCCGCAGCCAGAAGATACTGACTCACAGGCT
GGGCCCCGAGGCCTCCTTCTCGGCAGAGGACCTAAGCCTTTTCCTCAGCACCCGCTGTGTCGTGGTGCTG
CTGTCCGCGGAGCTGGTGCAGCACTTCCACAAGCCCTCCTTGCTGCCCCTGCTGCAGAGAGCTTTCCATC
CTCCGCACCGCGTGGTCAGGCTGCTCTGCGGCGTGCGGGACAGCGAGGAGTTCCTAGACTTCTTTCCAGA
TTGGGCCCATTGGCAGGAGCTCACCTGTGACGATGAGCCAGAGACCTACGTGGCAGCTGTGAAAAAAGCC
ATTTCCGAAGATTCTGGCTGTGACTCAGTCACTGACACTGAGCCTGAGGACGAGAAGGTTGTTTCCTACT
CGAAGCAGCAGAACCTGCCGACGGTGACTTCACCTGGGAACCTGATGGTGGTGCAGCCGGACCGCATTCG
CTGTGGGGCAGAAACCACTGTCTATGTTATTGTGAGATGTAAGCTGGATGACAGGGTGGCGACAGAAGCA
GAGTTTTCTCCTGAGGATTCTCCCTCTGTAAGGATGGAAGCCAAGGTGGAGAATGAGTACACCATTTCAG
TGAAGGCTCCCAACCTTTCATCTGGGAACGTTTCTCTGAAGATATATTCTGGAGACTTAGTGGTGTGTGA
AACCGTTATCAGCTATTATACTGACATGGAAGAAATTGGGAATTTATTGTCCAATGCCGCGAATCCTGTG
GAATTCATGTGTCAGGCCTTTAAAATTGTGCCCTACAACACAGAGACCCTTGATAAACTGCTAACCGAAT
CCCTGAAGAACAATATCCCTGCAAGCGGACTGCACCTCTTTGGAATCAACCAGCTGGAAGAAGAAGATAT
GATGACAAATCAGAGGGATGAAGAGCTGCCCACCCTGTTGCATTTTGCTGCGAAGTATGGACTGAAGAAC
CTCACTGCCTTGTTGCTCACCTGCCCAGGAGCCCTGCAGGCGTACAGCGTGGCCAACAAGCATGGCCACT
ACCCCAACACCATCGCTGAGAAACACGGCTTCAGGGACCTGCGGCAGTTCATCGACGAGTATGTGGAAAC
GGTGGACATGCTCAAGAGTCACATTAAAGAGGAACTGATGCACGGGGAGGAGGCTGATGCTGTGTACGAG
TCCATGGCCCACCTTTCCACAGACCTGCTTATGAAATGCTCGCTCAACCCCGGCTGTGACGAGGATCTCT
ATGAGTCCATGGCTGCCTTTGTCCCAGCTGCCACTGAAGACCTCTATGTTGAAATGCTTCAGGCCAGTAC
ATCTAACCCAATCCCTGGAGATGGTTTCTCTCGGGCCACTAAGGACTCTATGATCCGCAAGTTTTTAGAA
GGCAACAGCATGGGAATGACCAATCTGGAGAGAGATCAGTGCCATCTTGGTCAGGAAGAAGATGTTTATC
ACACGGTGGATGACGATGAGGCCTTTTCTGTGGACTTGGCCAGCAGGCCCCCTGTCCCAGTGCCCAGACC
AGAGACCACTGCTCCTGGTGCTCACCAGCTGCCTGACAACGAACCATACATTTTTAAAGTTTTTGCAGAA
AAAAGTCAAGAGCGGCCTGGGAATTTCTACGTTTCCTCAGAGAGCATCAGGAAAGGGCCGCCCGTCAGAC
CATGGAGGGACAGGCCCCAGTCAAGTATATATGACCCTTTTGCGGGAATGAAAACGCCAGGCCAGCGGCA
GCTTATCACCCTCCAGGAGCAGGTGAAGCTGGGCATTGTCAACGTGGATGAGGCTGTGCTCCACTTCAAA
GAGTGGCAGCTCAACCAGAAGAAACGATCGGAGTCCTTTCGTTTCCAGCAGGAAAATCTTAAACGGCTAA
GAGACAGCATCACCCGAAGACAGAGAGAGAAGCAAAAATCAGGAAAGCAGACAGACTTGGAGATCACGGT
CCCAATTCGGCACTCACAGCACCTGCCTGCAAAAGTGGAGTTTGGAGTCTATGAGAGTGGCCCCAGGAAA
AGTGTCATTCCCCCTAGGACGGAGCTGAGACGAGGAGACTGGAAAACAGACAGCACCTCCAGCACAGCAA
GTAGCACAAGTAACCGCTCCAGCACCCGGAGCCTCCTCAGTGTGAGCAGCGGGATGGAAGGGGACAACGA
GGATAATGAAGTCCCTGAGGTTACCAGAAGTCGCAGTCCAGGCCCCCCACAAGTGGATGGGACACCCACC
ATGTCCCTCGAGAGACCCCCCAGGGTGCCTCCGAGAGCTGCCTCACAGAGGCCTCCGACCAGGGAGACCT
TCCATCCTCCTCCACCTGTTCCACCCAGAGGACGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214125 representing NM_152309
Red=Cloning site Green=Tags(s)

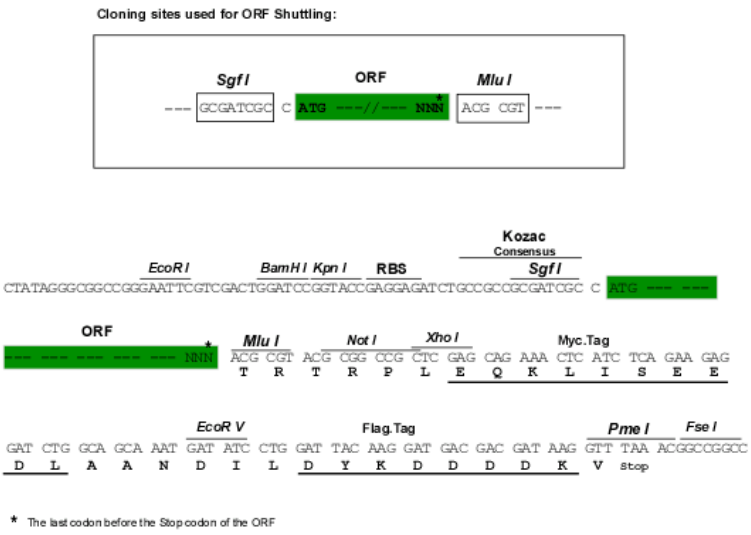
MAASGVPRGCDILIVYSPDAEEWCQYLQTLFLSSRQVRSQKILTHRLGPEASFSAEDLSLFLSTRCVVVL
LSAELVQHFHKPSLLPLLQRAFHPPHRVVRLLCGVRDSEEFLDFFPDWAHWQELTCDDEPETYVAAVKKA
ISEDSGCDSVTDTEPEDEKVVSYSKQQNLPTVTSPGNLMVVQPDRIRCGAETTVYVIVRCKLDDRVATEA
EFSPEDSPSVRMEAKVENEYTISVKAPNLSSGNVSLKIYSGDLVVCETVISYYTDMEEIGNLLSNAANPV
EFMCQAFKIVPYNTETLDKLLTESLKNNIPASGLHLFGINQLEEEDMMTNQRDEELPTLLHFAAKYGLKN
LTALLLTCPGALQAYSVANKHGHYPNTIAEKHGFRDLRQFIDEYVETVDMLKSHIKEELMHGEEADAVYE
SMAHLSTDLLMKCSLNPGCDEDLYESMAAFVPAATEDLYVEMLQASTSNPIPGDGFSRATKDSMIRKFLE
GNSMGMTNLERDQCHLGQEEDVYHTVDDDEAFSVDLASRPPVPVPRPETTAPGAHQLPDNEPYIFKVFAE
KSQERPGNFYVSSESIRKGPPVRPWRDRPQSSIYDPFAGMKTPGQRQLITLQEQVKLGIVNVDEAVLHFK
EWQLNQKKRSESFRFQQENLKRLRDSITRRQREKQKSGKQTDLEITVPIRHSQHLPAKVEFGVYESGPRK
SVIPPRTELRRGDWKTDSTSSTASSTSNRSSTRSLLSVSSGMEGDNEDNEVPEVTRSRSPGPPQVDGTPT
MSLERPPRVPPRAASQRPPTRETFHPPPPVPPRGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6162_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN:	NM_152309
ORF Size:	2415 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_152309.2, NP_689522.2

RefSeq Size: 4817 bp

RefSeq ORF: 2418 bp

Locus ID: 118788

UniProt ID: Q6ZUJ8

Cytogenetics: 10q24.1

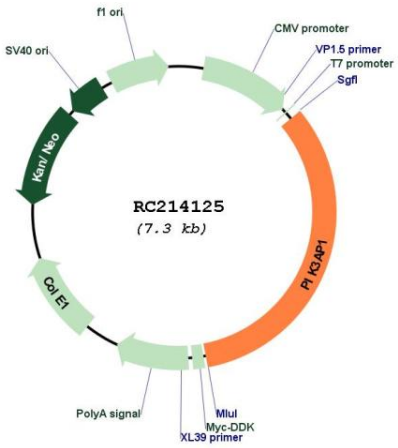
Protein Families: Druggable Genome

Protein Pathways: B cell receptor signaling pathway

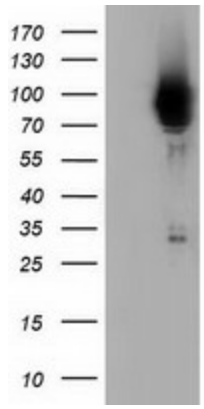
MW: 90.2 kDa

Gene Summary: Signaling adapter that contributes to B-cell development by linking B-cell receptor (BCR) signaling to the phosphoinositide 3-kinase (PI3K)-Akt signaling pathway. Has a complementary role to the BCR coreceptor CD19, coupling BCR and PI3K activation by providing a docking site for the PI3K subunit PIK3R1. Alternatively, links Toll-like receptor (TLR) signaling to PI3K activation, a process preventing excessive inflammatory cytokine production. Also involved in the activation of PI3K in natural killer cells. May be involved in the survival of mature B-cells via activation of REL.[UniProtKB/Swiss-Prot Function]

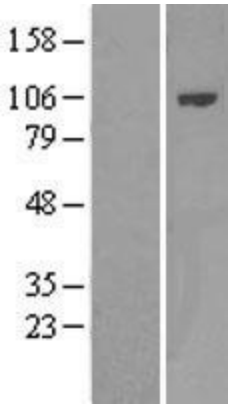
Product images:



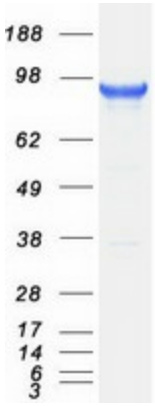
Circular map for RC214125



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PIK3AP1 (Cat# RC214125, 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-PIK3AP1(Cat# [TA501812]). Positive lysates [LY403461] (100ug) and [LC403461] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403461]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214125 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIK3AP1 protein (Cat# [TP314125]). The protein was produced from HEK293T cells transfected with PIK3AP1 cDNA clone (Cat# RC214125) using MegaTran 2.0 (Cat# [TT210002]).