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Product datasheet for RC205243

PIP5K2 alpha (PIP4K2A) (NM_005028) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIP5K2 alpha (PIP4K2A) (NM_005028) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIP5K2 alpha
Synonyms:	PI5P4KA; PIP5K2A; PIP5KII-alpha; PIP5KIIA; PIPK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC205243 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGACCCCCGGCAACCTAGGGTCCTCTGTCCTGGCGAGCAAGACCAAGACCAAGAAGAAGCACTTCG
TAGCGCAGAAAGTGAAGCTGTTTCGGGCCAGCGACCCGCTGCTCAGCGTCCTCATGTGGGGGGTAAACCA
CTCGATCAATGAACTGAGCCATGTTCAAATCCCTGTTATGTTGATGCCAGATGACTTCAAAGCCTATTCA
AAAATAAAGGTGGACAATCACCTTTTTAACAAAGAAAACATGCCGAGCCATTTCAAGTTTAAGGAATACT
GCCCGATGGTCTTCCGTAACCTGCGGGAGAGGTTTGGAATTGATGATCAAGATTTCCAGAATTCCCTGAC
CAGGAGCGCACCCCTCCCCAACGACTCCCAGGCCCGCAGTGGAGCTCGTTTTCACACTTCCTACGACAAA
AGATACATCATCAAGACTATTACCAGTGAAGACGTGGCCGAAATGCACAACATCCTGAAGAAATACCACC
AGTACATAGTGGAATGTCATGGGATCACCCTTCTTCCCCAGTTCTTGGGCATGTACCGGCTTAATGTTGA
TGGAGTTGAAATATATGTGATAGTTACAAGAAATGTATTCAGCCACCGTTTGTCTGTGTATAGGAAATAC
GACTTAAAGGGCTCTACAGTGGCTAGAGAAGCTAGTGACAAAGAAAAGGCCAAAGAACTGCCAACTCTGA
AAGATAATGATTTCATTAATGAGGGCCAAAAGATTTATATTGATGACAACAACAAGAAGGTCTTCCTGGA
AAAACTAAAAAAGGATGTTGAGTTTCTGGCCCAGCTGAAGCTCATGGACTACAGTCTGCTGGTGGGAATT
CATGATGTGGAGAGAGCCGAACAGGAGGAAGTGGAGTGTGAGGAGAACGATGGGGAGGAGGAGGGCGAGA
GCGATGGCACCCACCCGGTGGGAACCCCCCCAGATAGCCCCGGGAATACACTGAACAGCTCACCACCCCT
GGCTCCCGGGGAGTTCGATCCGAACATCGACGTCTATGGAATTAAGTGCCATGAAAACTCGCCTAGGAAG
GAGGTGTACTTCATGGCAATTATTGACATCCTTACTCATTATGATGCAAAAAAGAAAGCTGCCCATGCTG
CAAAAACTGTTAAACATGGCGCTGGCGCGGAGATCTCCACCGTGAACCCAGAACAGTATTCAAAGCGCTT
TTTGGACTTTATTGGCCACATCTTGACG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC205243 protein sequence
Red=Cloning site Green=Tags(s)

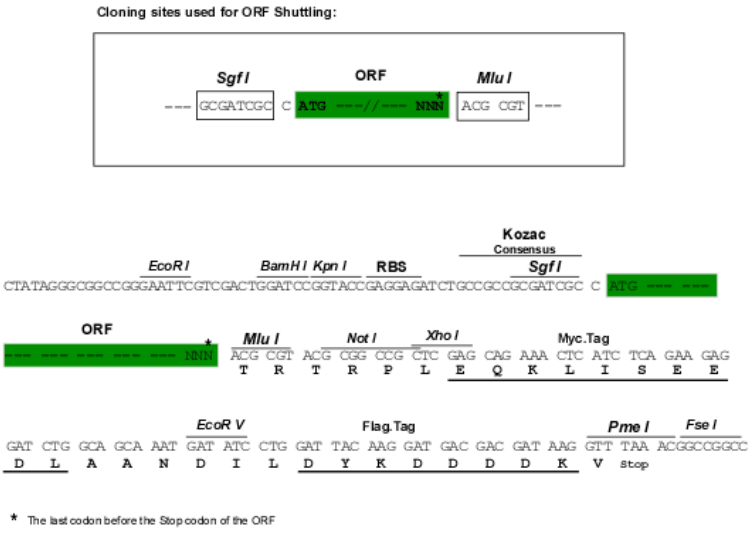
MATPGNLGSSVLASKTKTKKKHFVAQKVKLFRASDPLLSVLMWGVNHSINELSHVQIPVMLMPDDFKAYS
KIKVDNHLFNKENMPSHFKFKEYCPMVFRNLRERFGIDDQDFQNSLTRSAPLPNDSQARSGARFHTSYDK
RYIIKTITSEDVAEMHNILKKYHQYIVECHGITLLPQFLGMYRLNVDGVEIYVIVTRNVFSHRLSVYRKY
DLKGSTVAREASDKEKAKELPTLKDNDFINEGQKIYIDDNNKKVFLEKLKKDVEFLAQLKLMDYSLLVGI
HDVERAEQEEVECEENDGEEEGESDGTHPVGTPPDSPGNTLNSSPPLAPGEFDPNIDVYGIKCHENSPRK
EVYFMAIIDILTHYDAKKKAAHAAKTVKHGAGAEISTVNPEQYSKRFLDFIGHILT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6313_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005028

ORF Size: 1218 bp

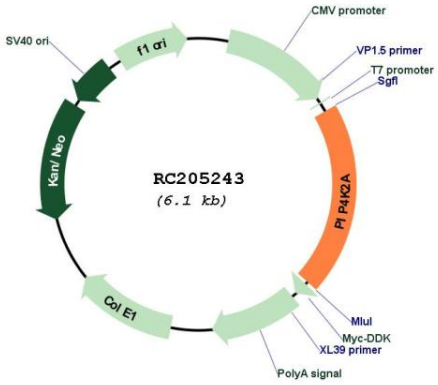
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

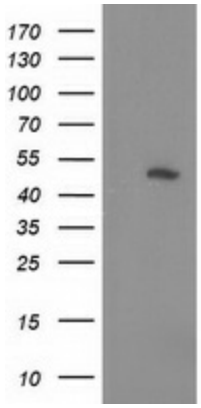
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_005028.5
RefSeq Size:	3833 bp
RefSeq ORF:	1221 bp
Locus ID:	5305
UniProt ID:	P48426
Cytogenetics:	10p12.2
Domains:	PIP5K
Protein Families:	Druggable Genome
Protein Pathways:	Inositol phosphate metabolism, Phosphatidylinositol signaling system, Regulation of actin cytoskeleton
MW:	46.2 kDa
Gene Summary:	Phosphatidylinositol-5,4-bisphosphate, the precursor to second messengers of the phosphoinositide signal transduction pathways, is thought to be involved in the regulation of secretion, cell proliferation, differentiation, and motility. The protein encoded by this gene is one of a family of enzymes capable of catalyzing the phosphorylation of phosphatidylinositol-5-phosphate on the fourth hydroxyl of the myo-inositol ring to form phosphatidylinositol-5,4-bisphosphate. The amino acid sequence of this enzyme does not show homology to other kinases, but the recombinant protein does exhibit kinase activity. This gene is a member of the phosphatidylinositol-5-phosphate 4-kinase family. [provided by RefSeq, Jul 2008]

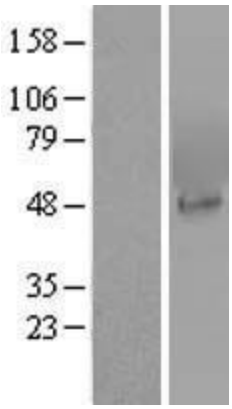
Product images:



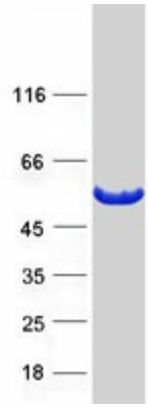
Circular map for RC205243



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PIP4K2A (Cat# RC205243, 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-PIP4K2A(Cat# [TA502271]). Positive lysates [LY417590] (100ug) and [LC417590] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417590]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205243 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIP4K2A protein (Cat# [TP305243]). The protein was produced from HEK293T cells transfected with PIP4K2A cDNA clone (Cat# RC205243) using MegaTran 2.0 (Cat# [TT210002]).