

Product datasheet for **RC205323**

ITPKA (NM_002220) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ITPKA (NM_002220) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ITPKA
Synonyms:	IP3-3KA; IP3KA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC205323 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCCTGCCCGGGGGCCCAACGGGCATGGCGCGCCGGGGGGCGGAGGCCCTGCAGCCCGGGGCTGG
 AGCGGGCCCCCGCAGGAGTGTGGGGAGCTGCGCCTGCTCTTCGAGGCGCGCTGTGCGGGGTGCTGC
 GGCCGCCCGCGGGGGAGCCCCGGGCCCGGGGCAAGCGGCGTGGGGACAGGTCCCCAACGGGCTT
 CAGCGGGTCCCCCGGCCCGGTGATCCCTCAGCTGACCGTGACAGCCGAGGAGCCCGACGTGCCCCGA
 CCAGCCCTGGGCCCGGAGCGGGAGAGGGACTGCCTCCCGCAGCGGGCTTTTCGCACCTGCAGCAGCC
 GCGCCGCTTTCCACCTCGTGGTCTCCTCCACTGGTCTCTCGTCTGCTCGAGGACTCGGAGGACGAC
 CTGCTGAGCGACAGTGAAGCCGAGCCGCGCAACGTGCAGTGAAGCGGGCGAGGACGTGGGTGAGA
 AAAACCACTGGCAGAAGATCCGGACCATGGTCAATCTGCCGTCATAAGCCCTTTCAAGAAGCGCTACGC
 CTGGGTGACAGTGGCAGGCACACTGGGAGTTTAAAGCGCGGGCACCAGCGGGCTGATCTGAAGCGC
 TGCTCGGAGCCGAGCGCTACTGCCTGGCGCGGCTGATGGCTGACGCGCTGCGCGGCTGCGTGCCTGCCT
 TCCACGGCGTGGTGGAGCGCGACGGCGAAAGCTACCTGCAGTGCAGGACCTGCTCGATGGCTTCGACGG
 ACCTTGTGTGCTCGACTGCAAAATGGGCGTCAGGACTTACCTAGAGGAGGAGCTGACCAAGGCCCGTGG
 CGGCCAAGCTGCGGAAGGACATGTACAAGAAAATGCTGGCGGTGGATCTGAAGCTCCCACGGAGGAGG
 AGCACGCGCAGCGCGCCGTACCAAGCCGCGCTACATGCAGTGGCGGGAAGGCATCAGCTCCAGCACCAC
 CCTCGGCTTCGCATCGAGGGCATCAAGAAAGCGGACGGCTCTGCAGCACCAGCTTCAAGACTACGCGA
 AGCCGAGAGCAGGTGCTTCGCGTCTTTGAAGAGTTTGTGAAGGAGATGAGGAAGTGTGAGGCGGTATC
 TGAACCGCTGCAGCAGATCCGGGACACCCTGGAGGTATCCGAGTTCTTCAGGAGCAGGAGTATCGG
 CAGCTCGCTCCTCTTTGTGCACGATCACTGCCATCGCGCCGCGTGTGGCTCATCGACTTCGGCAAGACC
 ACGCCCTCCCGATGGCCAGATCCTGGACCACCGCGGCCCTGGGAGGAGGCAACCGCGAGGACGGCT
 ATTTGCTGGGCTGGACAATCTCATTGGCATCCTGGCCAGCCTGGCTGAGAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205323 protein sequence
 Red=Cloning site Green=Tags(s)

MTLPGGPTGMARPGGARPCSPGLERAPRRSVGELRLLFEARCAAVAAAAAAGEPRARGAKRRGGQVPNGL
 QRAPPAPVIPQLTVTAEEPDPPTSPGPPERERDCLPAAGSSHLQPPRRLSTSSVSSTGSSSLEDSEDD
 LLSDESRSRGNVQLEAGEDVGQKNHWQKIRTMVNLPIVSPFKRYAWVQLAGHTGSFKAAGTSGLILKR
 CSEPERYCLARLMADALRGCVPFHFVVERDGEVYLQDLDLDFDGPVLDCKMGVRTYLEEELTKARE
 RPKLRKDMYKMLAVDPEAPTEEEHAQRAVTKPRYMQRWREGISSSTLGFRIEIKKADGSCSTDFKTRR
 SREQVLRVFEFVQGDDEVLRRYLNRLLQIRDTLEVSEFFRRHEVIGSSLLFVHDHCHRAGVWLDIFGKT
 TPLPDGQILDHRRPWEEGNREDGYLLGLDNLIGILASLAER

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6786_d07.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_002220

ORF Size: 1383 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_002220.3](#)
RefSeq Size: 1864 bp

RefSeq ORF: 1386 bp

Locus ID: 3706

UniProt ID: [P23677](#)
Cytogenetics: 15q15.1

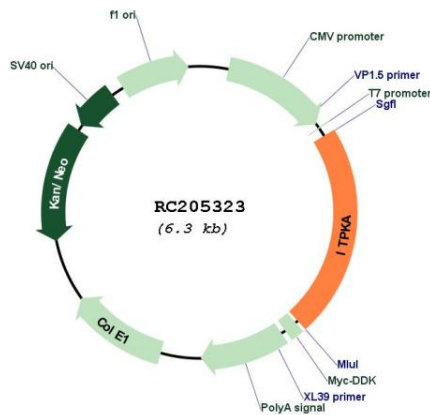
Protein Families: Druggable Genome

Protein Pathways: Calcium signaling pathway, Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system

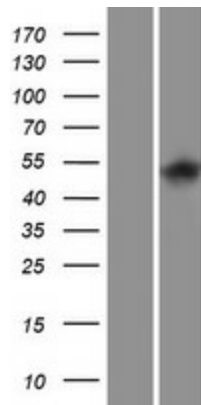
MW: 51 kDa

Gene Summary: Regulates inositol phosphate metabolism by phosphorylation of second messenger inositol 1,4,5-trisphosphate to Ins(1,3,4,5)P4. The activity of the inositol 1,4,5-trisphosphate 3-kinase is responsible for regulating the levels of a large number of inositol polyphosphates that are important in cellular signaling. Both calcium/calmodulin and protein phosphorylation mechanisms control its activity. It is also a substrate for the cyclic AMP-dependent protein kinase, calcium/calmodulin- dependent protein kinase II, and protein kinase C in vitro. [provided by RefSeq, Apr 2011]

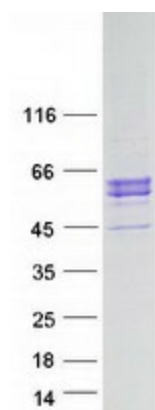
Product images:



Circular map for RC205323



Western blot validation of overexpression lysate (Cat# [LY419458]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205323 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITPKA protein (Cat# [TP305323]). The protein was produced from HEK293T cells transfected with ITPKA cDNA clone (Cat# RC205323) using MegaTran 2.0 (Cat# [TT210002]).