

## Product datasheet for **RG205323**

### ITPKA (NM\_002220) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ITPKA (NM_002220) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ITPKA
Synonyms:	IP3-3KA; IP3KA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG205323 representing NM\_002220  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACCCTGCCCGGGGGCCCAACGGGCATGGCGCGCCGGGGGGCGGAGGCCCTGCAGCCCGGGGCTGG  
 AGCGGGCCCCCGCAGGAGTGTGGGGAGCTGCGCCTGCTCTTCGAGGCGCGCTGTGCGCGGTGCTGCG  
 GGCCGCCCGCGGGGGAGCCCCGGGCCCGGGGCAAGCGGCGTGGGGACAGGTCCCCAACGGGCTT  
 CAGCGGGTCCCCCGGCCCGGTGATCCCTCAGCTGACCGTGACAGCCGAGGAGCCCGACGTGCCCCGA  
 CCAGCCCTGGGCCCGGAGCGGGAGAGGGACTGCCTCCCGCAGCGGGCTTTCGCACCTGCAGCAGCC  
 GCGCCGCTTTCCACCTCGTCGGTCTCCTCCACTGGCTCCTCGTCGCTGCTCGAGGACTCGGAGGACGAC  
 CTGCTGAGCGACAGTGAGAGCCGAGCCGCGCAACGTGCAGCTGGAAGCGGGCGAGGACGTGGGTGAGA  
 AAAACCACTGGCAGAAGATCCGGACCATGGTCAATCTGCCGTCATAAGCCCTTCAAGAAGCGCTACGC  
 CTGGGTGACAGTGGCAGGACACTGGGAGTTTTAAGGCGCGGGCACCAGCGGGCTGATCTGAAGCGC  
 TGCTCGGAGCCGAGCGCTACTGCCTGGCGCGGCTGATGGCTGACGCGCTGCGCGGCTGCGTGCCTGCCT  
 TCCACGGCGTGGTGGAGCGCGACGGCGAAAGCTACCTGCAGCTGCAGGACCTGCTCGATGGCTTCGACGG  
 ACCTTGTGTGCTCGACTGCAAAATGGGCGTCAGGACTTACCTAGAGGAGGAGCTGACCAAGGCCCGTGAG  
 CGGCCAAGCTGCGGAAGGACATGTACAAGAAAATGCTGGCGGTGGATCCTGAAGCTCCCACGGAGGAGG  
 AGCACGCGCAGCGCGCCGTACCAAGCCGCGCTACATGCAGTGGCGGGAAGGCATCAGCTCCAGCACCAC  
 CCTCGGCTTCCGCATCGAGGGCATCAAGAAAGCGGACGGCTCCTGCAGCACCAGCTTCAAGACTACGCGA  
 AGCCGAGAGCAGGTGCTTCGCGTCTTTGAAGAGTTTGTGCAAGGAGATGAGGAAGTGTGAGGCGGTATC  
 TGAACCGCTGCAGCAGATCCGGGACACCCTGGAGGTATCCGAGTTCTTCAGGAGGCAGGAGGTGATCGG  
 CAGCTCGCTCCTCTTTGTGCACGATCACTGCCATCGCGCCGCGGTGTGGCTCATCGACTTCGGCAAGACC  
 ACGCCCCCTCCCGATGGCCAGATCCTGGACCACCGCGGCCCTGGGAGGAGGGCAACCGCGAGGACGGCT  
 ATTTGCTGGGGCTGGACAATCTCATTGGCATCCTGGCCAGCCTGGCTGAGAGA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG205323 representing NM\_002220  
 Red=Cloning site Green=Tags(s)

MTLPGGPTGMARPGGARPCSPGLERAPRRSVGELRLLFEARCAAVAAAAAAGEPRARGAKRRGGQVPNGL  
 QRAPPAPVIPQLTVTAEEPDPPTSPGPPERERDCLPAAGSSHLQPPRLSTSSVSSTGSSSLEDESD  
 LLSDESRSRGNVQLEAGEDVQKNHWQKIRTMVNLPIVSPFKRYAWVQLAGHTGSFKAAGTSGLILKR  
 CSEPERYCLARLMADALRGCVPFHFVVERDGEVQLQDLDLDFDGPVLDCKMGVRYTLEELTKARE  
 RPKLRKDMYKMLAVDPEAPTEEEHAQRAVTKPRYMQRWREGISSSTTLGFRIEIKKADGSCSTDFKTR  
 SREQVLRVFEFVQGDDEEVLRRYLNRLLQIRDTLEVSEFFRRHEVIGSSLLFVHDHCHRAGVWLDIFGKT  
 TPLPDGQILDHRRPWEEGNREDGYLLGLDNLIGILASLAER

**TRTRPLE** – GFP Tag – V

**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\\_002220.1](#), [NP\\_002211.1](#)

**RefSeq Size:** 1782 bp

**RefSeq ORF:** 1386 bp

**Locus ID:** 3706

**UniProt ID:** [P23677](#)

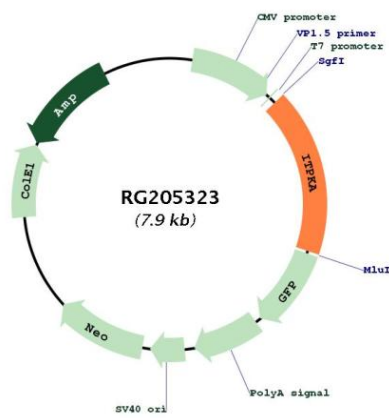
**Cytogenetics:** 15q15.1

**Protein Families:** Druggable Genome

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

**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 RG205323