

## Product datasheet for MR206205

### Ipmk (NM\_027184) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ipmk (NM_027184) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ipmk
Synonyms:	2410017C19Rik; AA408208; Impk
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206205 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGCCGAGCCCCAGCGCTGCGCCTGCGGCCGCCGGAAGCACCGGAGACAGCCCGCGGTGCCGC  
GCCTGCTCGGAGGCTGCGTGCCGCTGTCGCATCAGGTGGCTGGCCACATGTACGGCAAGGACAAAGTGGG  
CATACTCCAGCACCCAGATGGTACAGTTCTGAAACAGCTACAGCCACCGCCACGGGGCCCAAGAGAGCTG  
GAATTTTATACCATGGTTTACGCTGCTGACTGTGCCGATGCTGTTCTCCTGGAGCTGCGAAAACACCTGC  
CCAAATACTACGGCGTCTGGTCCCCTCCACCGCACCAAACGATGTGTACCTAAAAGTGAAGATGTGAC  
TCATAAGTTTAAACAAACCTGTATAATGGACGTGAAGATTGGGCGGAAGAGCTACGACCCCTTTGCGTCA  
TCAGAGAAGATTCAGCAGCAGGTGAGCAAGTACCTCTGATGGAGGAGATCGGGTTCCTGGTCTCGGCA  
TGAGGGTTTATCATCTTCACTCTGACAGCTACGAGACACAAAACAGCACTATGGAAGAGGCCTAACGAA  
AGAGACCTGAAGGAAGGCGTCTCCAAGTTTTCCACAATGGCTTCTGTTAAGAAAAGATGCGATTGCC  
GCCAGTATTCAGAAGGTAGAGAAGATTCAGTGGTTTAAAAATCAGAAGCAGCTTAACTTTTACGCAA  
GTTCTTTACTGTTTGTATGAAGTTTCATCTCAGCCAGCTACTACAAAAGCAAACGATAGAAGTTTGGC  
GGGGAGGTTTCTCTCAAAGGACCCCTGACGGATGCGGACGGCCTGGAGTGAATAACAACCTCCACCTG  
TTCGGCGCCCCGACCGGATGTCGGTGGGCAAGAGCTTATCGAAGGGGTACTCGAGGCACAGAAAGC  
TGATGCAAAAAAGCACCCAGAGTCAGACTTCCCTGAAAGTCGAAACGCTGGAGCAAGACAACGGGTGGAG  
AAGCATGTCCAGGAACCTTAAACGGAACGTCCTTGCCCAACTGGAAGGTTTCTACACCTTCCC  
GCGGGTCGTCGGAGATCCCAGGAGCGGAAGTACGGATGATAGACTTTGCTCACGTGTTCCCTAGCAACA  
CAGTCGATGAGGGGTATGTTTACGGTCTGAAGCATCTAATTGCCGTGCTTCGGAGATTTTAGACAGT

**ACGGT**ACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206205 protein sequence  
Red=Cloning site Green=Tags(s)

```
MAAEPPALRLRPPGSTGDSPPVPRLLGGCVPLSHQVAGHMYGKDKVGILQHPDGTVLKQLQPPRGPREL
EFYTMVYAADCADAVLLELRKHLPKYYGVWSPPTAPNDVYLKLEDVTHKFNKPCIMDVKIGRKSYPFAS
SEKIQQQVSKYPLMEEIGFLVLGMRVYHLHSDSYETQNOHYGRGLTKETLKEGVSKFFHNGFCLRKDAIA
ASIQKVEKILQWFENQQLNFYASSLLFVYEGSSQPATTKANDRTLGRFLSKGPLTDADGLECNNNFHL
FGAPPNGMSVKGSLSKAYSRHRKLYAKKHQSQTSLKVVETLEQDNGWRSMSQEHLNGNVLAQLEKVFYHLP
AGRPEIPEAEVRMIDFAHVFPSNTVDEGYVYGLKHLIAVLRISILDS
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_027184

**ORF Size:** 1191 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\\_027184.2](#)

**RefSeq Size:** 5432 bp

**RefSeq ORF:** 1191 bp

**Locus ID:** 69718

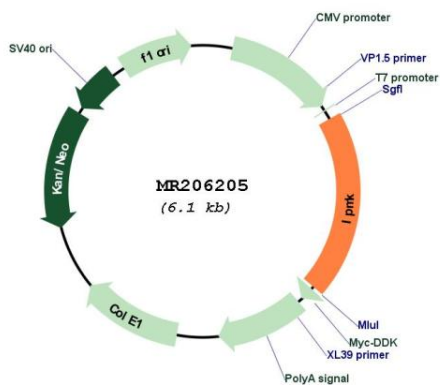
**UniProt ID:** [Q7TT16](#)

**Cytogenetics:** 10 B5.3

**MW:** 44.5 kDa

**Gene Summary:** Inositol phosphate kinase with a broad substrate specificity. Phosphorylates inositol 1,4,5-trisphosphate (Ins(1,4,5)P3) first to inositol 1,3,4,5-tetrakisphosphate and then to inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P5) (PubMed:15939867). Phosphorylates inositol 1,3,4,6-tetrakisphosphate (Ins(1,3,4,6)P4). Phosphorylates glycerol-3-phospho-1D-myo-inositol 4,5-bisphosphate to glycerol-3-phospho-1D-myo-inositol 3,4,5-trisphosphate. Plays an important role in MLKL-mediated necroptosis via its role in the biosynthesis of inositol pentakisphosphate (InsP5) and inositol hexakisphosphate (InsP6). Binding of these highly phosphorylated inositol phosphates to MLKL mediates the release of an N-terminal auto-inhibitory region, leading to activation of the kinase. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (By similarity). Required for normal embryonic development, probably via its role in the biosynthesis of inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P5) and inositol hexakisphosphate (InsP6) (PubMed:15939867).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206205