

## Product datasheet for MR224434

### Inpp5f (NM\_178641) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Inpp5f (NM_178641) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Inpp5f
Synonyms:	5830435P03Rik; AI115354; AW561896; cl-27; hSAC2; mKIAA0966; SAC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR224434 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCTCTTTAGGCTAAGGACCACTACATCCTGCAGCAGGGCGAGCGTGCCCTGTGGTGCAGCCGGC  
GCGACGGCGGCTGCAGCTCCGACCGGCCACGGATCTGCTTCTTGCTGGAACCCCATTTGTTGGGATT  
AGTGAAGGTGTAATTGGGAAAATCAACTTCATTCAGATCTCCATGGTGGCTTATTTAATTCGGCAG  
AAAGCGTTGGTAGCAAACCTCCAGGAGACCATGAGGTCTGTAAGTCACCAAGATTGCTGTATTGTCAC  
TTTCTGAAATGGAACCTCAGGAGCTTGAGCTGGAGCTCTGTAAGAAGCATCATTTTGAATTAACAAGCC  
TGAGAAGATTATACCATCTCCTGACGACTCCAAGTTTCTACTGAAGACATTTACAAATATCAAATCCAAC  
GTGCTGCTCCCAACAAAAGAAAGTTAAAGAAAGTAAAGAAAAGGAGAAACTGGAGCGCGTGTGCTTG  
AGGAGTTGCTGAAGATGTTTCATGGACTCAGAGTCTTCTATTATAGCTTGACCTATGACCTGACCAACTC  
GGTGCAGAGACAGAGCACTGGGGAGAGGGATGGCCGTCCCTGTGGCAGAAGGTTGATGACCGATTTTTC  
TGAATAAGTACATGATCCAAGCTCTCACTGAGATTGGTACTCCGGATGTGGACTTCTGGATCATCCCCA  
TTATCCAGGGTTTTGTGCAGATTGAAGAACTTGTGGTTAATACAATGAGTCCTCGGATGATGACAAGAG  
CAGCCCAGAGACGCCCCCTCAGGACTCCACTTGTGTAGATGACATTCACCCACGATTTCTAGTGGCTCTT  
ATATCTCGAAGAAGTAGGCACAGAGCAGGAATGCGGTATAAACAAGAGGAGTGGATAAAAAATGGAATG  
TTGCGAATTATGTGGAGACTGAGCAGTTAATCCATGTTTCATCATATACCCTGTCATTTATCCAAACTCG  
AGGCTCTGTGCCGTCTTTTGGAGCCAGGTTGGGTATCGCTATAATCCAAGACCTCGGCTAGACAAAAGT  
GAGAAGGAAACGGTTGACTGTTTCTGTGCCATTTTGAAGAACAAGTAAATTTACAAAAACAGGTTA  
TTGTTAACTTGGTAGACCAGGCTGGAAGGGAGAAGATTATTGGTATGCTTACCTGAAGCAGGTGCTGCT  
CTTCAACAACCCCAAGCTCACCTATGTCTCCTTCGATTTCCATGAGCACTGCCGAGGAATGAAGTTCGAG  
AATGTTCAAACCCCTCACGGATGCCATTCATGACATCATCATTGACATGAAGTGGTGTGGGTTGATCAAG  
CTGGTGTGATATGTAAGCAAGAAGGGATTTTTCGAGTTAATTGCATGGACTGCCTGGATCGCACCAACGT  
GGTCCAGGCTGCCATAGCGCGTGGTTCATGGAACAGCAGCTTAAAAAAGTGGTGTGATGCCTCCAGAG



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CAGCCACTACCTGTGAAATGTAATCGGACCTACCAGATAATGTGGGCCAACAACGGTGACTCCATCAGCA  
GGCAGTATGCTGGGACTGCTGCTCTAAAGGGTGACTTTACAAGAACAGGAGAAAGGAAGTTGGCAGGAGT  
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GTCATAGATCTGATGCAAGGCGTCCCAGTGACAGAAGACCTTTACTCCATATTTACCAAGGAGAAGGAGC  
ATGAAGCTTTCATAAAGGAGAGCCAGAGAAGCCACCAGGAGCTCATCAGCCAGCTTTACAGAGTTATAT  
GCAGTTGCTGCTGCCGGTGACGAGAAGTTCACGGGGGCTGGCCCTGGTTGACTGCGACCCAGCCTC  
ACTGACGCTGCGCACAGAGATGTGGAAGTGTCTGCTGTCTAACGCTGCCTACTATGTGCCCTATT  
ATGATGACGAAGTTGATAAAGTAAACCAGTATCAACGACTGGGCCTAGAAGACCTGGAAAGAATAGAAAT  
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GGATGTTTACTGCCAGAGATTTGTGCAGGATGCACAGAACAAAATGAATGACCTGTCAGAGATCAGGTCT  
GTAGCTCAGAAGAGTGAGGAGGGAAGTCACAAGACTAACCGTGTGTCTAATGAAGAAACCCAGTCAGAAC  
CAATGGGACAGACGCCTCCTCGACCCTCAGTTAAACGTCTCTTGTTCGTGGCAGGCCACCATTCTT  
ATCAGTTGAACCAAGTACATTTCAGTGCTATCTCAGAAGACGCCAGCTCCGGGTCCAGCCTTCTGGAACCT  
GAGGCAGGGCTCTGCGTAACTCCCTCTTCAGAGAGCAGCAGCAGGAGGAGTCTCTCCCTTTGCAAAGA  
TCCGCAGTCCATGGTCCAAGTCGCTAATATTACCAAGCTGGGCTAACTCATGGGATAAACTTGCGGGT  
TGCCAAAGTTCAGAAGAGTCCAGCAGAACCCGAAGCGGTTAACGAAATTCACAAAATGAACTTAAAAAT  
ATGTTTACACAATGCCAGACACGAATAATTCAGATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR224434 protein sequence  
 Red=Cloning site Green=Tags(s)

MELFQAKDHYILQQGERALWCSRDDGGLQLRPATDLLLAWNPICLGLVEGVIGKIQLHSDLPWWLILIRQ  
 KALVGKLPGDHEVCKVTKIAVLSLSEMEPQELELELCKKHHFGINKPEKIIPSPDDSKFLLKFTTNIKSN  
 VSAPNKKVKESKEKEKLERRLLEELLKMFMDSESFYYSLYDLTNSVQRQSTGERDGRPLWQKVDDRFF  
 WNKYMIQALTEIGTPDVFWDWIPIIIQGFVQIEELVVNYNESSDDDKSSPETPPQDSTCVDDIHPFLVAL  
 ISRRSRHRAGMRYKRRGVDKNGNVANYVEQLIHVHHHTLSFIQTRGSVPVFWWSQVGYRYNPRRLDKS  
 EKETVDFCAHFEEQLKIYKKQVIVNLVDQAGREKIIGDAYLKQVLLFNNPKLTYVSDFDHEHCRGMKFE  
 NVQTLTDAIHDIIIDMKWCWVDQAGVICKQEGIFRVNCDCLDRTNVVQAAIARVYMEQQLKLGVMPE  
 QPLPVKCNRTYQIMWANNGDSISRQYAGTAALKGDFTRTGERKLAGVMKDGVNSANRYLRSFKDAYRQA  
 VIDLMQGVPTEDLYSIFTKEKEHEALHKESQRSHQELISQLLQSYMQLLLPGDEKFGHGVALVDCDPSL  
 TDAHRDVEVLLLLSNAAYYVAYDDEVDKVNQYQRLGLEDLERIEIGPEPTLFGKPKFSCMRLHYRCKE  
 AGGYFHTLRAVPRSPPEEDGKDTLQCIAEMLQITKQAMGLDVPIIEKKLERKSSKPHEDIIGIRSQNGSL  
 AQGKSFLMSKFSSLNQKVKQTKSNVIGNLRKLGNTKPEMKVNF LKPNLKVNLWKSDDSSLETMENPGVM  
 GNKVQGESDGDISSDNDYSHSDEF L TNSKSEEDQLANSLSVGPIDYILPSCGIIVSAPRLGSRSQSAS  
 SIDVSTHAPSEAAAGPGSELGKGLSEPLKSPSADSIHTRTGFTKPMDVYQCQRFVQDAQNMNDLSEIRS  
 VAQKSEEGSHKTNRSNEETQSEPMGQTPRPSQLNVSCSVAGPPFLSVEPVHVSLSQKTPSSGSSLLEL  
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 MFTQCQTRIIQI

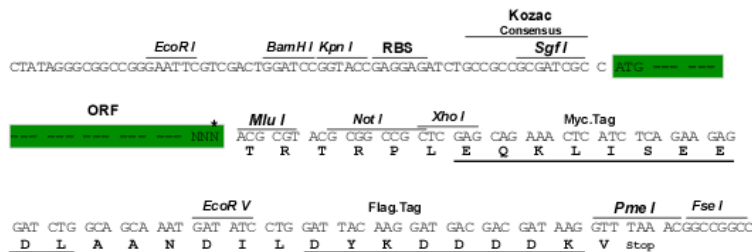
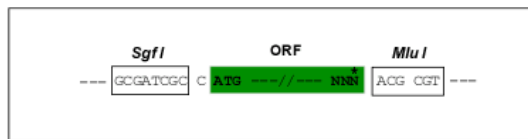
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

ACCN:

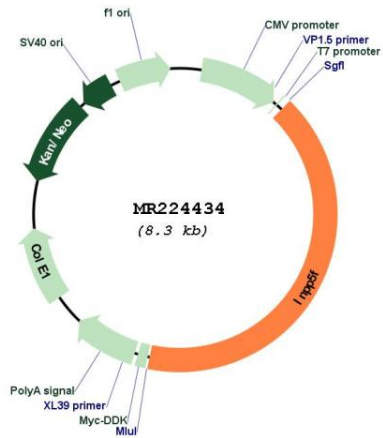
NM\_178641

ORF Size:

3399 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_178641.2</a> , <a href="#">NM_178641.3</a> , <a href="#">NM_178641.4</a> , <a href="#">NM_178641.5</a> , <a href="#">NP_848756.2</a>
<b>RefSeq Size:</b>	4740 bp
<b>RefSeq ORF:</b>	3399 bp
<b>Locus ID:</b>	101490
<b>UniProt ID:</b>	<a href="#">Q8CDA1</a>
<b>Cytogenetics:</b>	7 F3
<b>MW:</b>	127.6 kDa
<b>Gene Summary:</b>	Inositol 4-phosphatase which mainly acts on phosphatidylinositol 4-phosphate. May be functionally linked to OCRL, which converts phosphatidylinositol 4,5-bisphosphate to phosphatidylinositol, for a sequential dephosphorylation of phosphatidylinositol 4,5-bisphosphate at the 5 and 4 position of inositol, thus playing an important role in the endocytic recycling (PubMed:25869668, PubMed:25869669). Regulator of TF:TFRC and integrins recycling pathway, is also involved in cell migration mechanisms (By similarity). Modulates AKT/GSK3B pathway by decreasing AKT and GSK3B phosphorylation (PubMed:17322895). Negatively regulates STAT3 signaling pathway through inhibition of STAT3 phosphorylation and translocation to the nucleus (By similarity). Functionally important modulator of cardiac myocyte size and of the cardiac response to stress (PubMed:19875726). May play a role as negative regulator of axon regeneration after central nervous system injuries (PubMed:26203138).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224434