

## Product datasheet for **MG226131**

### Inpp5d (NM\_001110193) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Inpp5d (NM_001110193) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Inpp5d
Synonyms:	p150Ship; s-SHIP; SHIP; SHIP-1; SHIP1; SIP-145
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226131 representing NM_001110193 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGCCATGGTCCCTGGGTGGAACCATGGCAACATCACCCGCTCCAAGGCAGAGGAGCTACTTTCCA  
GAGCCGGCAAGGACGGGAGCTTCTTGTGCGTGCCAGCGAGTCCATCCCCGGGCCTACGACTCTGCGT  
GCTGTTCCGGAATTGTGTTTACACTTACAGGATTCTGCCCAATGAGGACGATAAATTCAGTTCAGGCA  
TCCGAAGGTGTCATGAGGTTCTTACGAAGCTGGACCAGCTCATCGACTTTTACAAGAAGGAAAACA  
TGGGGCTGGTGACCCACCTGCAGTACCCGCTGCCCTGGAGGAGGAGGATGCTATTGATGAGGCTGAGGA  
GGACACTGTAGAAAGTGTATGTACCACCTGAGCTGCCTCCCAGAAACATTCCTATGTCTGCCGGGCC  
AGCGAGGCCAAGGACCTTCTCTTGCAACAGAGAACCCCCGAGCCCTGAGGTACCCCGGCTGAGTCTCT  
CCGAGACTGTTTCAGCGTCTACAGAGCATGGATACCAAGTGGGCTTCCCAGGAGCACCTGAAAGCCAT  
CCAGGATTATCTGAGCACTCAGCTCCTCCTGGATTCCGACTTTTTGAAGACGGGCTCCAGCAACCTCCCT  
CACCTGAAGAAGTGTATGCTACTGCTCTGCAAGGAGCTCCATGGGGAAGTCAAGGACTCTGCCATCCC  
TGGAGTCTCTGCAGAGGTTGTTTGACCAACAGCTCTCCCAGGCCTTCGCCACGACCTCAGGTGCCCGG  
AGAGGCCAGTCCCATCACCATGGTTGCCAACTCAGCAATTGACAAGTCTGCTGTTCCATTGAAGT  
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ACTGATCGTTAAGAAGTCCAAGGATGGTTCTGAGGACAAGTTCTACAGCCACAAAAAATCCTGCAGCTC  
ATTAAGTCCCAGAAGTTTCTAAACAAGTTGGTATTTTGGTGGAGACGGAGAAGGAGAAAATCCTGAGGA  
AGGAATATGTTTTGCTGACTCTAAGAAAAGAGAAGGCTTCTGTCAACTCCTGCAGCAGATGAAGAACA  
GCATTCGGAGCAGCCAGAGCCTGACATGATCACCATCTTATTGGCACTTGAACATGGGTAAATGCACCC  
CCTCCCAAGAAGATCACGCTCTGGTTTCTCTCAAGGGGCAGGAAAAGACACGGGACGACTCTGCTGACT  
ACATCCCCATGACATCTATGTGATTGGCACCCAGGAGGATCCCCTTGGAGAGAAGGAGTGGCTGGAGCT  
ACTCAGGCACTCCCTGCAAGAAGTCAACAGCATGACATTTAAAACAGTTGCCATCCACCCCTCTGGAAC



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ATTCGCATAGTGGTGCTTGCCAAGCCAGAGCATGAGAATCGGATCAGCCATATCTGCACTGACAACGTGA  
 AGACAGGCATCGCCAACACCCTGGGAAACAAGGGAGCAGTGGGAGTGTCTTTCATGTTCAATGGAACCTC  
 CTTGGGGTTTCGTCAACAGCCACTTGACTTCTGGAAGTGAAAAAAGCTCAGGAGAAATCAAACTATATG  
 AACATCCTGCGGTTCTGGCCCTGGGAGACAAGAAGCTAAGCCATTTAACATCACCCACCGCTTCAACC  
 ACCTCTTCTGGCTGGGGATCTCAACTACCGCTGGAGCTGCCCACTTGGGAGGCAGAGGCCATCATCCA  
 GAAGATCAAGCAACAGCAGTATTCAGACCTTCTGGCCACGACCAACTGCTCCTGGAGGAAGGACCCAG  
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 GGGACAAGTATGCATACACGAAGCAAAAAGCAACAGGGATGAAGTACAACCTTGCCGTCTGGTGCGACCG  
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 AAGAGTGGAGAGTGTCAAGGGACAAGCAACAGGCCCTGTGCTGTCTTGGCCCAACCCCGGAT  
 CCGCTCCTTTACCTGTTCTTCTGCTGAGGGCAGAATGACCAGTGGGACAAGAGCCAAAGGGAAGCC  
 AAGGCCTCAGCCAGTCCCAAGCCCAAGTCCAGTCAAGAGGCCTGTCAAGCCTTCCAGGTGAGAAATGA  
 GCCAGCAGACAACACCCATCCAGCTCCACGGCCACCCCTGCCAGTCAAGAGTCTGCTGTCTGACAGT  
 GCAACATTCCAAAGGCAGAGACTACCGTGACAACAGAACTCCCCACCATGGCAAGCACCGCCAAGAG  
 GAGGGGCTGCTTGGCAGGACTGCCATGCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

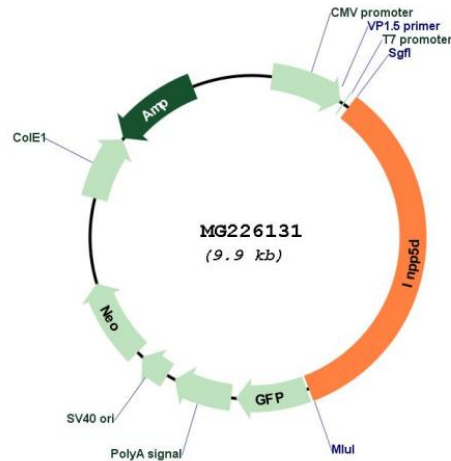
>MG226131 representing NM\_001110193  
 Red=Cloning site Green=Tags(s)

MPAMVPGWNHGNITRSKAEELLSRAGKDGSLVRASESIPRAYALCVLFRNCVYTYRILPNEDDKFTVQA  
 SEGVPMPRFFTKLDQLIDFYKKNMGLVTHLQYPVPLEEEDAIDEAEEDTVESVMSPPPEPPRNIPMSAGP  
 SEAKDLPLATENPRAPEVTRLSLSETLQRLQSMDSGLPEEHLKAIQDYLSTQLLLDSDFLKGTSSNLP  
 HLKMLSLCKELHGEVIRTLPSLESQRLFDQQLSPGLRPRPQVPGEASPTMVAKLSQLTSLSSIED  
 KVKSLHEGSESTNRRSLIPPVTFEVKSESLGIPQKMHKVDVSESKLIVKSKDGEDKIFYSHKILQL  
 IKSQKFLNKLIVETEKEKILRKEYVFAADSKKREGFCQLLQMKNHSEQPEPDMITIFIGTWNMGNAP  
 PPKKITSWFLSKGQKTRDSDADYIPHDYVIGTQEDPLGEKEWLELLRHSLQEVTSMTFKTVAIHTLWN  
 IRIVVLAKPEHENRISHICTDNVKTGIANTLGNKGAVGVSMFNGTSLGFVNSHLTSGSEKLLRRNQNYM  
 NILRFLALGDKKLSPFNITHRFTHLFWLGDLYRVELPTWEAEAIQKIKQQYSDLLAHDQLLLERKDQ  
 KVFLHFEEEEITFAPTYRFERLTRDKYAYTKQKATGMKYNLPSWCDRVLWKSYPVHVVCQSYGSTSDIM  
 TSDHSPVFATFEAGVTSQFVSKNGPGTVDSQGIIEFLACYATLTKSQTIFYLEFHSSCLESFVKSQEGE  
 NEEGSEGELVVRFGETLPKLPKPIISDPEYLLDQHILISIKSSDSDESYGEGCIALRLETQAHPYIYTPL  
 THHGEMTGHFRGEIKLQTSQGMREKLYDFVKTERDESSGMKCLKNLTSHDPMRQWEPVSRVPAACGVSSL  
 NEMINPNYIANRGPVPRVQEARPGDLGKVEALLQEDLLLTKPEMFENPLYGVSVPKLVPRKEQESPKM  
 LRKEPPPCDPGISSPSIVLPAQEVEVSKGTSKQAPVPLGPTPRIRSFCTSSSAEGRMTSGDKSQGKP  
 KASASSQAPVPVVRKPSRSEMSQQTTPIPAPRPLPVKSPAVLQLQHSKGRDYRDNTELPHHGKHRQE  
 ELLGRTAMQ

TRTRPLE – GFP Tag – V



## Plasmid Map:



ACCN: NM\_001110193

ORF Size: 3390 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001110193.2](#), [NP\\_001103663.1](#)

RefSeq Size: 4755 bp

RefSeq ORF: 3393 bp

Locus ID: 16331

UniProt ID: [Q9ES52](#)

Cytogenetics: 1 44.44 cM

**Gene Summary:** Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3) to produce PtdIns(3,4)P2, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways (By similarity). Able also to hydrolyzes the 5-phosphate of phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P3) and inositol 1,3,4,5-tetrakisphosphate (PubMed:9367159). Acts as a negative regulator of B-cell antigen receptor signaling. Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Acts as a negative regulator of myeloid cell proliferation/survival and chemotaxis, mast cell degranulation, immune cells homeostasis, integrin alpha-IIb/beta-3 signaling in platelets and JNK signaling in B-cells. Regulates proliferation of osteoclast precursors, macrophage programming, phagocytosis and activation and is required for endotoxin tolerance. Involved in the control of cell-cell junctions, CD32a signaling in neutrophils and modulation of EGF-induced phospholipase C activity. Key regulator of neutrophil migration, by governing the formation of the leading edge and polarization required for chemotaxis. Modulates FCGR3/CD16-mediated cytotoxicity in NK cells. Mediates the activin/TGF-beta-induced apoptosis through its Smad-dependent expression.[UniProtKB/Swiss-Prot Function]