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Product datasheet for MR226853

Inppl1 (NM_001122739) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Inppl1 (NM_001122739) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Inppl1
Synonyms:	51C; SHIP2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR226853 representing NM_001122739 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCCTCAGTGTGTGGGACACCGAGTCCCGGGGGTGCGCTAGGCAGCCCGGCCCCAGCCTGGTATCACC GTGACCTGAGCCGCGCTGCTGCGGAGGAGCTCCTGGCTCGGGCGGGCCGCGATGGCAGCTTCCTGGTGCG AGATAGCGAGAGCGTGGCGGGGGCCTTCGCACTCTGCGTCCTGTATCAAAAGCACGTGCACACCTACCGC ATTCTGCCAGATGGAGAGGATTTCCTGGCTGTGCAGACCTCACAGGGTGTTCCTGTGCGTCGCTTCCAGA CCCTGGGTGAGCTTATAGGCCTATATGCCCAGCCCAACCAGGGTCTTGTTTGTGCCCTGCTGCTGCCTGT AGAGGGGGAGAGAGAGCCAGACCCACCAGATGACCGAGATGCCTCAGATGTGGAGGACGAGAAGCCCCCA CTACCCCCGCGCTCTGGCTCTACCAGCATTTCTGCCCCTGTGGGGCCCAGCAGCCCCCTGCCGACTCCCG AGACTCCCACAACTCCAGCAGCTGAGAGCACTCCTAATGGACTCAGCACTGTGTCACATGAGTATCTGAA GGGCAGCTACGGGCTGGACCTGGAGGCTGTACGAGGTGGAGCCAGCAACTTGCCACATCTCACCAGAACC CTTGTCACCTCGTGCCGAAGGCTACACAGCGAGGTGGACAAGGTCCTGTCAGGCTTGGAGATCCTGTCGA AGGTGTTTGACCAGCAGAGCTCGCCCATGGTGACCCGCCTTTTACAGCAGCAGAGCTTACCACAGACTGG AGAGCAGGAGCTGGAGAGCCTTGTGCTGAAGCTATCTGTGTTAAAGGACTTCCTGTCAGGCATCCAGAAG AAGGCCCTAAAGGCACTGCAGGACATGAGCTCCACAGCGCCTCCGGCTCCATTGCAGCCCTCCATACGCA AGGCCAAGACCATCCCCGTGCAGGCCTTTGAGGTGAAGCTGGATGTAACACTGGGTGACCTGACCAAGAT TGGGAAGTCCCAGAAGTTCACGCTGAGTGTGGATGTCGAGGGTGGGAGGCTGGTTCTGCTGAGGAGACAG CGTGACTCCCAGGAGGACTGGACAACCTTCACACATGACCGGATCCGGCAGCTCATTAAATCCCAGCGTG TGCAGAACAAGCTGGGTGTTGTGTTTGAAAAGGAGAAAGATCGGACCCAGCGCAAGGACTTCATCTTTGT CAGTGCCCGGAAACGAGAAGCCTTCTGCCAGCTCCTGCAGCTCATGAAGAACAGGCACTCCAAGCAGGAC GAGCCCGACATGATCTCTGTCTTCATAGGCACCTGGAACATGGGAAGTGTACCACCACCCAAAAACGTGA CATCTTGGTTCACATCAAAGGGACTGGGGAAAGCTCTGGATGAGGTCACAGTGACTATACCCCACGATAT CTATGTCTTTGGGACTCAGGAGAACTCAGTGGGTGACAGAGAGTGGCTGGATCTGCTGCGTGGGGGCCTC AAGGAGCTTACAGATCTGGATTACCGTCCGATTGCTATGCAGTCACTATGGAACATCAAGGTGGCTGTGT

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Protein Sequence:

>MR226853 representing NM_001122739
Red=Cloning site Green=Tags(s)

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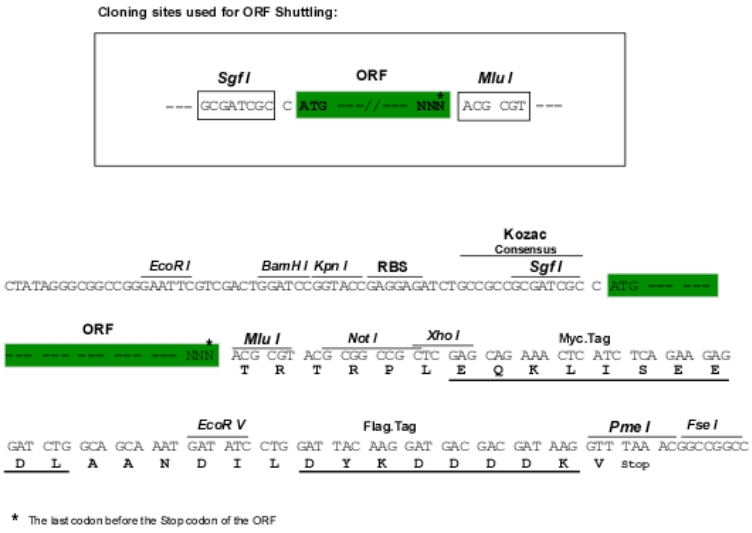
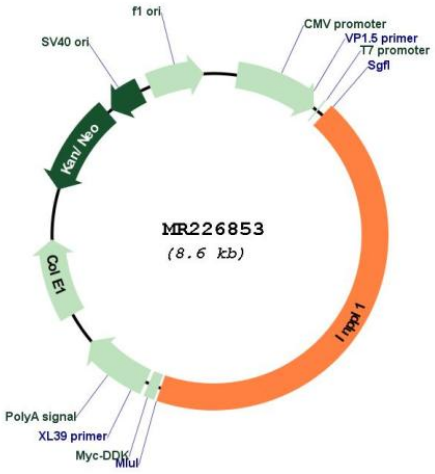
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001122739
ORF Size:	3771 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_001122739.1, NP_001116211.1
RefSeq Size:	4778 bp
RefSeq ORF:	3774 bp
Locus ID:	16332
UniProt ID:	Q6P549

Cytogenetics:	7 E2
MW:	139.4 kDa
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 (PubMed:10958682). Plays a central role in regulation of PI3K-dependent insulin signaling, although the precise molecular mechanisms and signaling pathways remain unclear. While overexpression reduces both insulin-stimulated MAP kinase and Akt activation, its absence does not affect insulin signaling or GLUT4 trafficking. Confers resistance to dietary obesity. May act by regulating AKT2, but not AKT1, phosphorylation at the plasma membrane. Part of a signaling pathway that regulates actin cytoskeleton remodeling. Required for the maintenance and dynamic remodeling of actin structures as well as in endocytosis, having a major impact on ligand-induced EGFR internalization and degradation. Participates in regulation of cortical and submembraneous actin by hydrolyzing PtdIns(3,4,5)P3 thereby regulating membrane ruffling (By similarity). Regulates cell adhesion and cell spreading (PubMed:29749928). Required for HGF-mediated lamellipodium formation, cell scattering and spreading. Acts as a negative regulator of EPHA2 receptor endocytosis by inhibiting via PI3K-dependent Rac1 activation. Acts as a regulator of neuritogenesis by regulating PtdIns(3,4,5)P3 level and is required to form an initial protrusive pattern, and later, maintain proper neurite outgrowth. Acts as a negative regulator of the FC-gamma-RIIA receptor (FCGR2A). Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Involved in EGF signaling pathway. Upon stimulation by EGF, it is recruited by EGFR and dephosphorylates PtdIns(3,4,5)P3. Plays a negative role in regulating the PI3K-PKB pathway, possibly by inhibiting PKB activity. Down-regulates Fc-gamma-R-mediated phagocytosis in macrophages independently of INPP5D/SHIP1. In macrophages, down-regulates NF-kappa-B-dependent gene transcription by regulating macrophage colony-stimulating factor (M-CSF)-induced signaling. May also hydrolyze PtdIns(1,3,4,5)P4, and could thus affect the levels of the higher inositol polyphosphates like InsP6. Involved in endochondral ossification (By similarity). [UniProtKB/Swiss-Prot Function]