

Product datasheet for MR204856

PPP1CA (NM_031868) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP1CA (NM_031868) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPP1CA
Synonyms:	dism2; PPP1C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204856 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTCGACAGCGAGAAGCTCAACCTGGACTCCATCATCGGGCGCCTGCTGGAAGTGCAGGGCTCACGGCCTGGGAAGAACGTGCAGCTGACAGAGAACGAGATCCGTGGTCTGTGCCTCAAATCCCGGAGATTTCTGAGCCAGCCATTCTTCTGGAGCTTGAGGCGCCCTCAAGATCTGTGGTACATCCATGGCCAGTACTATGACCTTCTACGGCTGTTGAGTATGGTGGCTTCCCTCCAGAGAGCAACTACCTCTTCTGGGGATTATGTAGATCGGGCAAGCAGTCTTTGGAGACCATCTGCCTGTTGCTGGCCTATAAGATCAGATACCCGGAGAAATTTCTTTCTACTTCGTGGGAACCATGAGTGTGCCAGCATCAACCGCATTTATGGCTTCTATGATGAATGCAAGAGAAGATACAACATCAAAGTGTGGAAGACGTTCACTGACTGCTTCAACTGCCTGCCATTGCAGCCATTGTGGATGAGAAGATCTTCTGCTGCCACGGGGCCTGTCTCCAGACTTGCAATCCATGGAGCAGATTAGGCGTATTATGCGGCCACAGACGTGCCTGACCAGGGCCTACTGTGTGATCTCCTGTGGTCTGACCCTGACAAGGATGTTCAAGGCTGGGGCGAGAATGACCGTGGTGTCTCCTTACCTTTGGGGCTGAGGTGGTAGCCAGTTCCTGCACAAGCATGATTTGGACCTCATCTGCAGAGCACATCAGGTTGTAGAAGATGGCTATGATTTCTTTGCCAAGAGACAGTTGGTGCACCTTCTCAGCTCCAACTACTGTGGAGAGTTTGACAATGCTGGTGCCATGATGAGTGGATGAGACCCTCATGTGTTTCCTTCCAGATCCTCAAGCCCGCTGATAAGAATAAGGGCAAGTATGGGCAGTTACGCGCCCTGAACCCCGGAGGCCCGCCATCACTCCACCCGCAATTCTGCCAAGCCAAGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR204856 protein sequence
 Red=Cloning site Green=Tags(s)

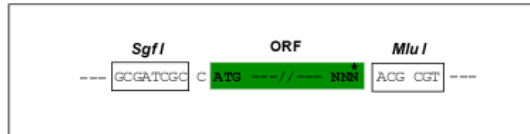
MSDSEKLNLDISIIGRLLEVQGSRPQKNVQLTENEIRGLCLKSREIFLSQPILLELEAPLKICGDIHGQYY
 DLLRLFEYGGFPPESNYLFGLDYVDRGKQSLLETICLLLAYKIRYPENFFLLRGNHECASINRIYGFYDEC
 KRRYNIKLWKTFTDCFNCLPIAAIVDEKIFCCHGGLSPDLQSMQIRIRMRPTDVPDQGLLCDLLWSDPD
 KDVQGWGENDRGVSFTFGAEVVAKFLHKHDLDLICRAHQVVEDGYEFFAKRQLVTLFSAPNYCGEFDNAG
 AMMSVDETLMCSFQILKPADKNKGKYGQFSGLNPGRPIITPPRNSAKAKK

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_031868

ORF Size: 993 bp

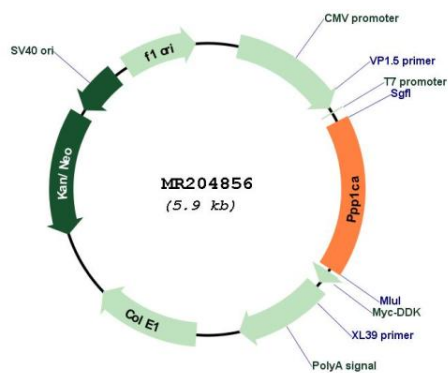
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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:	<ol style="list-style-type: none">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:	<u>NM_031868.2</u> , <u>NP_114074.1</u>
RefSeq Size:	1363 bp
RefSeq ORF:	993 bp
Locus ID:	19045
UniProt ID:	<u>P62137</u>
Cytogenetics:	19 A
MW:	37.5 kDa
Gene Summary:	<p>Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Protein phosphatase 1 (PP1) is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. May play an important role in dephosphorylating substrates such as the postsynaptic density-associated Ca(2+)/calmodulin dependent protein kinase II. Component of the PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase. Regulates NEK2 function in terms of kinase activity and centrosome number and splitting, both in the presence and absence of radiation-induced DNA damage. Regulator of neural tube and optic fissure closure, and enteric neural crest cell (ENCCs) migration during development. In balance with CSNK1D and CSNK1E, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. May dephosphorylate CSNK1D and CSNK1E. Dephosphorylates CENPA (By similarity). Dephosphorylates the 'Ser-139' residue of ATG16L1 causing dissociation of ATG12-ATG5-ATG16L1 complex, thereby inhibiting autophagy (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR204856