

Product datasheet for **RC228457**

PDP1 (NM_001161780) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDP1 (NM_001161780) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDP1
Synonyms:	PDH; PDP; PDPC; PPM2A; PPM2C
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC228457 representing NM_001161780
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGTGTGTGCCGGCCAGACGAATTGGAATCCAGTCAGAAGTCCAGCCTGCCACTGTTCTCTG
 ATGCCATGCCAGCACCACCACTCAACTGTTTTTCCCTCTCATCCGTAAGTGTGAAGTGAAGCAGGATCTATGG
 CACTGCATGTTACTGCCACCACAAACATCTCTGTTGTTCCCTCATCGTACATTCCCTCAGAGTCGACTGAGA
 TACACACCTCATCCAGCATATGCTACCTTTTGCAGGCCAAAGGAGAAGTGGTGGCAGTACACCCAAGGAA
 GGAGATATGCTTCCACACCACAGAAATTTACCTCACACCTCCACAAGTCAATAGCATCCTTAAAGCTAA
 TGAATACAGTTTCAAAGTGCCAGAATTTGACGGCAAAAATGTCAGTTCTATCCTTGGATTTGACAGCAAT
 CAGCTGCCTGCAAATGCACCCATTGAGGACCGGAGAAGTGCAGCAACCTGCTTGCAGACCAGAGGGATGC
 TTTTGGGGTTTTGATGGCCATGCAGGTTGTGCTTGTCCAGGCAGTCAGTGAAGACTCTTTTATTA
 TATTGCTGTCTTTGTTACCCCATGAGACTTTGCTAGAGATTGAAAATGCAGTGGAGAGCGGCCGGCA
 CTGCTACCCATTCTCCAGTGGCACAAGCACCCCAATGATTACTTTAGTAAGGAGGCATCCAAATTGACT
 TTAACAGCTTGAGGACTTACTGGCAAGAGCTTATAGACCTCAACACTGGTGGTGGTGGTGGTGGTGGTGGT
 TAAGGAGGCTCTAATTAATGCCTTCAAGAGGCTTGATAATGACATCTCCTTGGAGGCGCAAGTTGGTGGT
 CCTAATCTTTTCTCAACTACCTGGTGTTCGAGTGGCATTCTTCTGGAGCCACTGCTTGTGTGGCCCATG
 TGGATGGTGTGACCTTCATGTGGCCAATACTGGCGATAGCAGAGCCATGCTGGGTGTGCAGGAAGAGGA
 CGGCTCATGGTCAGCAGTCACGCTGTCTAATGACCACAATGCTCAAAAATGAAAGAGAAGTGAACCGCTG
 AAATTGGAACATCAAAGAGTGAAGGCAAGAGTGTGCTGAAACAGGATCGGCTGCTTGGCTTGTGCTGATGC
 CATTTAGGGCATTGGAGATGTAAGTTCAAATGGAGCATTGACCTTCAAAGAGAGTGAAGAATCTGG
 CCCAGACCAGTTGAATGACAATGAATATACCAAGTTTATTCTCCTAATTATCACACACCTCCTTATCTC
 ACTGCTGAGCCAGAGGTAACCTACCACCGATTAAGGCCACAGGATAAGTTTCTGGTGTGGCTACTGATG
 GTTGTGGGAGACTATGCATAGGCAGGATGTGGTTAGGATTGTGGGTGAGTACCTAACTGGCATGCATCA
 CCAACAGCCAATAGCTGTTGGTGGCTACAAGGTGACTCTGGGACAGATGCATGGCCTTTTAAACAGAAAGG
 AGAACCAAAATGCTCCTCGGTATTTGAGGATCAGAACGCAGCAACCCATCTCATTCCGCCACGCTGTGGCA
 ACAACGAGTTTGGGACTGTTGATCATGAGCGCCTCTCTAAAATGCTTAGTCTTCTGAAGAGCTTGTCTCG
 AATGTACAGAGATGACATTACAATCATTGTAGTTCAGTTCAATTCTCATGTTGTAGGGCGTATCAAAC
 CAAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228457 representing NM_001161780
 Red=Cloning site Green=Tags(s)

MCVCPGPRRIGIPVRSLSPLFSDAMPAPTQLFFPLIRNCELSRIYGTACYCHHKHLCCSSSYIPQSRRLR
 YTPHPAYATFCRPKENWQYTGRRYASTPQKFYLTTPQVNSILKANEYSFKVPEFDGKNVSSILGFDSN
 QLPANAPIEDRRSAATCLQTRGMLLVFDGHAGCACSQAVSERLFYYIAVSLLPHETLLEIENAVESGRA
 LLPILQWHKHPNDYFSKEASKLYFNSLRTYWQELIDLNTGESTDIDVKEALINAFKRLDNDISLEAQVGD
 PNSFLNYLVLRVAFSGATACVAHVVDGVDLHVANTGDSRAMLVQEEGGSWSAVTLSNDHNAQNERELERL
 KLEHPKSEAKSVVKQDRLLGLLMPFRAFQDVFKWSIDLQKRVIKESGPDQLNDNEYTKFIPPNYHTPPYL
 TAEPEVTYHRLRPQDKFLVLAIDGLWETMHRQDVVRIVGEYLTGMHHQPIAVGGYKVTLLGQMHGLLTER
 RTKMSSVFEDQNAATHLIRHAVGNNEFGTVDHERLSKMLSLPEELARMYRDDITIIIVVQFNSHVVGAYQN
 QE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

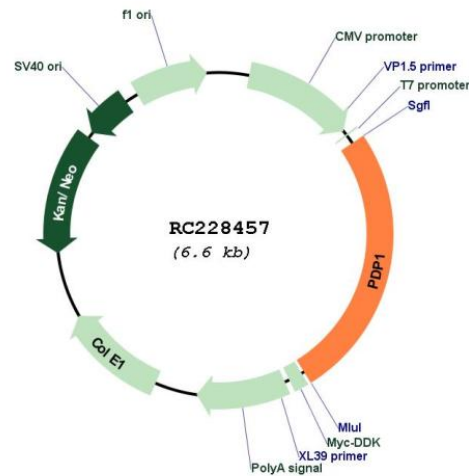
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001161780
 ORF Size: 1686 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:	<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:	NM_001161780.2
RefSeq ORF:	1689 bp
Locus ID:	54704
UniProt ID:	Q9P0J1
Cytogenetics:	8q22.1
Protein Families:	Druggable Genome, Phosphatase
MW:	63.5 kDa
Gene Summary:	Pyruvate dehydrogenase (E1) is one of the three components (E1, E2, and E3) of the large pyruvate dehydrogenase complex. Pyruvate dehydrogenase kinases catalyze phosphorylation of serine residues of E1 to inactivate the E1 component and inhibit the complex. Pyruvate dehydrogenase phosphatases catalyze the dephosphorylation and activation of the E1 component to reverse the effects of pyruvate dehydrogenase kinases. Pyruvate dehydrogenase phosphatase is a heterodimer consisting of catalytic and regulatory subunits. Two catalytic subunits have been reported; one is predominantly expressed in skeletal muscle and another one is much more abundant in the liver. The catalytic subunit, encoded by this gene, is the former, and belongs to the protein phosphatase 2C (PP2C) superfamily. Along with the pyruvate dehydrogenase complex and pyruvate dehydrogenase kinases, this enzyme is located in the mitochondrial matrix. Mutation in this gene causes pyruvate dehydrogenase phosphatase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Jun 2009]