

Product datasheet for **SC128049**

PDP1 (NM_018444) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDP1 (NM_018444) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDP1
Synonyms:	PDH; PDP; PDPC; PPM2A; PPM2C
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC128049 sequence for NM_018444 edited (data generated by NextGen Sequencing)

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ATGCCAGCACCAACTCAACTGTTTTTCTCTCATCCGTAAGTGTGAAGTGAAGCAGGATC
TATGGCACTGCATGTTACTGCCACCACAAAACATCTCTGTTGTTCCCTCATCGTACATTCT
CAGAGTCGACTGAGATACACACCTCATCCAGCATATGCTACCTTTTGCAGGCCAAAGGAG
AACTGGTGGCAGTACACCAAGGAAGGAGATATGCTTCCACACCACAGAAATTTACCTC
ACACCTCCACAAGTCAATAGCATCCTTAAAGCTAATGAATACAGTTTCAAAGTGCCAGAA
TTTGACGGCAAAAATGTCAGTTCTATCCTTGGATTTGACAGCAATCAGCTGCCTGCAAAAT
GCACCCATTGAGGACCGAGAAGTGCAGCAACCTGCTTGCAGACCAGAGGGATGCTTTTG
GGGGTTTTGATGGCCATGCAGGTTGTGCTTGTCCAGGCAGTCAAGAAAGACTCTTT
TATTATATTGCTGTCTTTGTTACCCCATGAGACTTTGCTAGAGATTGAAAATGCAGTG
GAGAGCGGCCGGCACTGCTACCCATTCTCCAGTGGCACAAGCACCCCAATGATTACTTT
AGTAAGGAGGCATCCAAATTGACTTTAACAGCTTGAGGACTTACTGGCAAGAGCTTATA
GACCTCAACACTGGTGAAGTGCAGTATGATGTTAAGGAGGCTCTAATTAATGCCTTC
AAGAGGCTTGATAATGACATCTCCTTGGAGGCGAAGTTGGTGATCCTAATTCCTTTCTC
AACTACCTGGTGTCTCGAGTGGCATTCTTGGAGCCACTGCTTGTGTGGCCCATGTGGAT
GGTGTGACCTTCATGTGGCCAATACTGGCGATAGCAGAGCCATGCTGGGTGTGCAGGAA
GAGGACGGCTCATGGTCAGCAGTCAAGCTGTCTAATGACCACAATGCTCAAAATGAAAGA
GAACTAGAACGGCTGAAATTGGAACATCCAAAGAGTGAGGCCAAGAGTGTGCGTAAACAG
GATCGGCTGCTTGGCTTGTGATGCCATTTAGGGCATTGGAGATGTAAGTTCAAATGG
AGCATTGACCTTCAAAGAGAGTGATAGAATCTGGCCAGACCAGTTGAATGACAATGAA
TATACCAAGTTTATTCTCCTAATTATCACACACCTCCTATCTCACTGCTGAGCCAGAG
GTAACCTTACCACCGATTAAAGCCACAGGATAAGTTTCTGGTGTGGCTACTGATGGGTTG
TGGGAGACTATGCATAGGCAGGATGTGGTTAGGATTGTGGGTGAGTACCTAACTGGCATG
CATCACCAACAGCCAATAGCTGTTGGTGGCTACAAGGTGACTCTGGGACAGATGCATGGC
CTTTTAAACAGAAAGGAGAACCAAAATGCCTCGGTATTTGAGGATCAGAACGCAGCAACC
CATCTCATTGCCACGCTGTGGGCAACAACGAGTTTGGGACTGTTGATCATGAGCGCCTC
TCTAAAATGCTTAGTCTTCTGAAGAGCTTGCTCGAATGTACAGAGATGACATTACAATC
ATTGTAGTTCAGTTCAATTCTCATGTTGTAGGGGCGTATCAAACCAAGAATAG
    
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Clone variation with respect to NM_018444.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_018444 unedited
NTTGTTCCGATTTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGGGCGGGA
AGCACTCCGCCCCGAACGTGCGGGCGGGCAGGGTGGCGCCCCGCACGGTAGGGGAGCA
GAGTGGCAGGCCGGGGTGAGGGCTCGCGCTCCGGGAGCTGCACGGGGCTGCGTGGAAA
GAGCGCCGAGCGGTGGCGTGTGTCGCCCTCCTCGTGGGAAGAATCGTTTGGTCTC
TGCCCGTCCCGGAATCCAGTCAAGAAGTCCAGCCTGCCACTGTTCTCTGATGCCATGC
CAGCACCAACTCAACTGTTTTTCTCTCATCCGTAAGTGTGAAGTGAAGCAGGATCTATG
GCACTGCATGTTACTGCCACCACAAACATCTCTGTTGTTCCCTCATCGTACATTCTCAGA
GTCGACTGAGATACACACCTCATCCAGCATATGCTACCTTTTGCAGGCCAAAGGAGAACT
GGTGGCAGTACACCAAGGAAGGAGATATGCTTCCACACCACAGAAATTTACCTCACAC
CTCCACAAGTCAATAGCATCCTTAAAGCTAATGAATACAGTTTCAAAGTGCCAGAATTTG
ACGGCAAAAATGTCAGTTCTATCCTTGGATTTGACAGCAATCAGCTGCCTGCAAAATGCAC
CCATTGAGGACCGGAGAAGTGCAGCAACCTGCTTGCAGACCAGAGGGATGCTTTTGGGGG
TTTTTGATGGCCATGCANGTTGTGCTTGTCCAGCAGTCAAGAAAGACTCTTTTATTA
TATTGCTGTCTTTGTTACCCCATGAGACTTTGCTAGAGATTGAAAATGCAGTGGAGAG
CGGCCGGCACTGCTACCCATTCTNCAAGTGGCACAAGCACCCCATGATTACTTTAGTAAG
GNAGCATTCAAATGTAAGTTTACAGCTTGAGGACTACTGGCAAA
    
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3' Read Nucleotide Sequence:	>OriGene 3' genomic read for NM_018444 unedited TTTGGCCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGAAGTTTACATGT ATCTTTAATTCTAGACACCGTACAACAGTGACAACCAATTACAATAAAATCACAATTGC TTTTAGATGACAGTACTTTCAGATTTCTAATACCCAATTACTTTTCATTTCCACAATGTCA ACTTCATGCTGCATTTTCATTTCTATAGAGCAGACAAGCTTCCAGACTGCAGACCAAGTT TCTTGTGTAATAATACTACTATCTTGATCATGACCACAGGAAACCAATTTATATTCCT GTACTATAGAGATGAGACATTATTTGGTGTATATGAAACTCTTCAGTGGTGGTGTCAAG AATATTCAAATAGTAGCTGAAAATAGGGTTTGCTAGAGCAGTCCACATATTTTCAAAAA GAAAAATGCCAGTCAAAACATTTAGAAAATAAATATATAGTACAGCCTTCCCTCTCCCA AATACTACCCAGGAAAAAAGTTCCAAGCTGACTTAAAAAAAAAAAAACACAAAAATAAA AACAAAAACACCTCAAAAAATAACATTATGATATTCTGAGCAGCAATCTTCTGAGT CTATTTTCAATTGAAACAAATTCTGCAGCCAATAGTACACTGATTCAGTATCCACAGTCC AGAAGGAGTTCTGAACATCTAGTTCATATCCCCAAAAATGTGAAAAGACTCCTAAACA CCCAAGTTATTACACAATGGNGAAGCTGATATTTGGCTTGATTTAAAATCCAGGTGAATA TCANACATAATCAGCCCTTACAGTGTGCTAGAATAGTGATGACAATATGTGCACAGC TGNTACAGATCACTATTAACACCAGGACAAATGCCCTTGATGTATCAAAAGCCCAAT TGATATATTTTTCATTACATGATCAGNATAGAAGGACTGATATATATGGGGACGCTGCA ACATTGATGCCCTAGTTTCTATAAGCTCG
Restriction Sites:	NotI-NotI
ACCN:	NM_018444
Insert Size:	4260 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_018444.2 , NP_060914.2
RefSeq Size:	4215 bp
RefSeq ORF:	1614 bp
Locus ID:	54704
UniProt ID:	Q9P0J1
Cytogenetics:	8q22.1
Domains:	PP2C

Protein Families: Druggable Genome, Phosphatase

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]

Transcript Variant: This variant (5) lacks an internal segment, compared to variant 2. The difference causes translation initiation at a downstream AUG and results in an isoform (3) with a shorter N-terminus, compared to isoform 2.