

Product datasheet for SC119981

PDHA1 (NM_000284) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDHA1 (NM_000284) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDHA1
Synonyms:	PDHA; PDHAD; PDHCE1A; PHE1A
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119981 sequence for NM_000284 edited (data generated by NextGen Sequencing)

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ATGAGGAAGATGCTCGCCGCGTCTCCCGCGTGTCTGGCGCTTCTCAGAAGCCGGCA
AGCAGAGTGCTGGTAGCATCCCCTAATTTTGCAAATGATGCTACATTTGAAATTAAGAAA
TGTGACCTTCACCGGCTGGAAGAAGGCCCTCTGTCAACAAGTGTCTACCCAGGGAGGAT
GGGCTCAAATACTACAGGATGATGCAGACTGTACGCCAATGGAGTTGAAAGCAGATCAG
CTGTATAAACAGAAAATTATTCGTGGTTTCTGTCACTTGTGTGATGGTCAGGAAGCTTGC
TGTGTGGGCTGGAGGCCGGCATCAACCCACAGACCATCTCATCACAGCCTACCGGGCT
CACGGCTTTACTTTCACCCGGGGCCTTTCCGTCCGAGAAATTCTCGCAGAGCTTACAGGA
CGAAAAGGAGGTTGTGCTAAAGGAAAGGAGGATCGATGCACATGTATGCCAAGAAGCTTC
TACGGGGCAATGGCATCGTGGGAGCGCAGGTGCCCTGGGCGTGGGATTGCTCTAGCC
TGTAAGTATAATGAAAAGATGAGGTCTGCCTGACTTTATATGGCGATGGTGTCTGCTAAC
CAGGGCCAGATATTCGAAGCTTACAACATGGCAGCTTTGTGAAAATTACCTTGTATTTTC
ATCTGTGAGAATAATCGCTATGGAATGGGAACGCTCTGTTGAGAGAGCGGCAGCCAGCACT
GATTACTACAAGAGAGGCGATTTTCATTCTGGGCTGAGAGTGGATGGAATGGATATCCTG
TGCGTCCGAGAGGCAACAAGGTTTGTGCTGCCTATTGTAGATCTGGGAAGGGGCCATC
CTGATGGAGCTGCAGACTTACCCTTACCACGGACACAGTATGAGTGACCTGGAGTCAGT
TACCGTACACGAGAAGAAATTCAGGAAGTAAGAAGTAAGAGTGACCTATTATGCTTCTC
AAGGACAGGATGGTGAACAGCAATCTTGCCAGTGTGGAAGAAGTAAAGGAAATTTGATGTG
GAAGTGAGGAAGGAGATTGAGGATGCTGCCAGTTTGCCACGGCCGATCCTGAGCCACCT
TTGGAAGAGCTGGGCTACCACATCTACTCCAGCGACCCACCTTTTGAAGTTCGTGGTGCC
AATCAGTGGATCAAGTTTAAGTCAGTCAGTTAA

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Clone variation with respect to NM_000284.3



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_000284 unedited</p> <pre>GGGCACCATTTGTATACGACTCCTATAGGGCGGCCGCAATTCGCACGAGGGTCTGCTGG GGCACCTGAAGGAGACTTGGGGGCACCCGCGTCGTGCCTCCTGGGTTGTGAGGAGTCGCC GCTGCCGCCACTGCCTGTGCTTCATGAGGAAGATGCTCGCCGCCGTCTCCCGCGTGTGT CTGGCGCTTCTCAGAAGCCGGCAAGCAGAGTGTGGTAGCATCCCCTAATTTTGCAAATG ATGCTACATTTGAAATTAAGAAATGTGACCTTCACCGGCTGGAAGAAGGCCCTCCTGTCA CAACAGTGCTCACCAGGAGGATGGGCTCAAATACTACAGGATGATGCAGACTGTACGCC GAATGGAGTTGAAAGCAGATCAGCTGTATAAACAGAAAATTATTCTGGTTTCTGTCACT TGTGTGATGGTCAGGAAGCTTGCTGTGTGGCCTGGAGGCCGGCATCAACCCACAGACC ATCTCATCACAGCCTACCGGGCTCACGGCTTTACTTTACCCGGGGCCTTTCCGTCCGAG AAATTCTCGCAGAGCTTACAGGACGAAAAGGAGGTTGTGCTAAAGGAAAGGAGGATCGA TGCACATGTATGCCAAGAACTTCTACGGNGGCAATGGCATCGTGGGAGCGCAGGTGCCCC TGNGCGCTGGGATTGCTCTAGCCCTGTAGTATAATGAAAAGATGAGGTCTGCCTGACTN TATATGGCGATGGTGTCTAACCAGNGCCAGATATTCGAAGCTTACAACATGGCAGCCT TTGTGAAATTACCTTGTATTNTCATCTGTGAGAATAATCGCTATGGAATGGGAACGTCT GTTGAGAGAGCGGCAGCCAGCACTGATTACTANCAGAGAGGGCGATTTCCTGGGCTG AGAGTGGATGGAATGGATATCCTGT</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000284 unedited</p> <pre>TTGGACCGCGCCGCTTCTATAGTCGGTTTTTTTTTTTTTTTTTAACTTTAAGCACTC AATAATTCATCTTTAATGCACTAATGTACAACTGCATGCAATTACTACCTGCTCAATC TACACACTTAATGGAAGTTTCCAAGAATTCATTGAATTCATTGACTGGGTTTTCTTCC TCCTTAACCAAGTTGAGAACACTGTCTGGTAGCCCTGAAGGTATAACCTCTCCTTCTC CTCCCCTTAAGTACTGACTTAACTTGTATCCACTGATTGGCACCACGAAGTCAAAAAGG TGGGTCGCTGGAGTAGATGTGGTAGCCAGCTTCCAAAGGTGGCTCAGGATCGGCCGT GGCAAAGTGGGACGATCCTCAATCTCCTTCTCACTTCCACATCAATTTCTTTAGTTC TTCCACACTGGCAAGATTGCTGTTACCATCCTGTCTTGGAGAAGCATAATAAGTCACT CTTACTTCTTACTTCTGAATTTCTTCTCGTGTACGGTAACTGACTCCAGGGTCACTCAT ACTGTGTCGCGTGGGAACGGTAAGTCTGCACTCCATAAGAATGGCCCTTTTCCCAATTT ACATTGGGCGCCAGCAAACCTTTGTGGCCTTTGGGCCCCAAGGAATCCTTTCTTCCC CTTTAAACCCAAAAAGAAAAACCCCTCTTTGTGAAAAAAAAGGGGGGGGGCGCTTTT TTAAAAAAAATGTCCCCTTCTTATAAGATTTTTTCCCAATAAAAAAAAAGGGGGTTTT CCCCAACGCCCCGCGGGGAGGCCTAAAATTTGGGCCGGGGTGAACCCCCCCCCC TCTTTTTAATGAGGGGGACATTTTTTTTTTTTTTTTTTTTTGGGCGGAGAAAAAANC CCCCCGGGGGGGGGGGTCTCTCCAT</pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_000284
Insert Size:	1460 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:

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_000284.1](#), [NP_000275.1](#)

RefSeq Size: 1472 bp

RefSeq ORF: 1173 bp

Locus ID: 5160

UniProt ID: [P08559](#)

Cytogenetics: Xp22.12

Domains: E1_dehydrog

Protein Families: Druggable Genome

Protein Pathways: Butanoate metabolism, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Metabolic pathways, Pyruvate metabolism, Valine, leucine and isoleucine biosynthesis

Gene Summary: The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO₂, and provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle. The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). The E1 enzyme is a heterotetramer of two alpha and two beta subunits. This gene encodes the E1 alpha 1 subunit containing the E1 active site, and plays a key role in the function of the PDH complex. Mutations in this gene are associated with pyruvate dehydrogenase E1-alpha deficiency and X-linked Leigh syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2010]

Transcript Variant: This variant (1) represents the predominant transcript and encodes isoform 1.