

## Product datasheet for **RC225833**

### PDHX (NM\_001135024) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDHX (NM_001135024) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDHX
Synonyms:	DLDBP; E3BP; OPDX; PDHXD; PDX1; proX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225833 representing NM\_001135024  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCAATCAGCGCGCTGAGGGCAGCCGGGGCGGGCGAACGGGGCGGGGCCGGGCTCTGGTAAGG  
 CCCCGCCGGCTGAGATATCCAGCGCGCACCTGACTTCCCGGAGGTGATCCATTAAAGATACTAATGCC  
 ATCACTGTCTCTACAATGGAAGAAGGAAACATTGTGAAATGGCTGAAAAAGGAAGTGAAGCGGTGAGT  
 GCTGGAGATGCATTATGTGAAATGAGACTGACAAAGCTGTGGTTACCTTAGATGCAAGTATGATGGAA  
 TCTTGGCCAAAATCGTGGTTGAAGAAGGAAGTAAAAATACGGCTAGGTTCACTAATTGGTTTATGATG  
 AGAAGAAGGAGAAGATTGAAACATGTTGAAATCCCAAAGACGTAGGTCCTCCACCACCACTTTCAAAA  
 CCTTCAGAGCCTCGCCCTCACCAGAACCACAGATTTCCATCCCTGTCAAGAAGGAACACATACCCGGGA  
 CACTACGGTTCGGTTAAGTCCAGCTGCCCGCAATATTCTGAAAAACACTCACTGGATGCTAGCCAGGG  
 CACAGCCACTGGCCCTCGGGGATATTTACTAAAGAGGATGCTCTCAAACCTGTCCAGTTGAAACAAACG  
 GGCAAGATTACCGAGTCCAGACCACTCCAGCCCCACAGCCACTCCACAGCACCTTCGCCCTACAGG  
 CCACAGCTGGACCATCTTATCCCCGGCCTGTGATCCCACCAAGTATCAACTCCTGGACAACCCAATGCAGT  
 GGGCACATTTCACTGAAATCCCCGCCAGCAATATTCGAAGAGTTATTGCCAAGAGATTAAGTAACTAAA  
 AGTACTGTACCTCATGCATATGCTACTGCTGACTGTGACCTTGGAGCTGTTTTAAAAGTTAGGCAAGATC  
 TGGTCAAAGATGACATTAAGTATCAGTAAATGATTTTATCATCAAGGCAGCAGCTGTTACCCCTAAACA  
 AATGCCAGATGTTAATGTAAGCTGGGATGGAGAGGGCCCAAAGCAACTGCCATTTATTGACATTTCAAGT  
 GCTGTGGCAACAGATAAAGGCTTACTTACTCCAATCATAAAAGATGCTGCTGCTAAAGGTATCCAGGAAA  
 TTGCTGACTCTGTAAGGCTCTATCAAAGAAAGCAAGAGATGAAAAATTGTTGCCTGAAGATAACCAAGG  
 AGGATCTTTTTAGTATTTCCAACCTGGGGATGTTTGGCATCGACGAATTTACTGCAGTGATTAACCCCTCT  
 CAGGCCTGCATTTTGGCGGTTGGGAGGTTCCGACCTGTGCTGAAGCTCACTGAGGATGAAGAGGGAATG  
 CCAAAGTGCAGCAGCGCCAGCTCATAACAGTCACAATGTCAAGTGACAGTCGAGTGGTTGATGACGAACT  
 GGCAACCAGGTTTCTAAAAGTTTTAAAGCAAACCTAGAGAATCCTATCCGACTTGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225833 representing NM\_001135024  
 Red=Cloning site Green=Tags(s)

MQSGGAEGSPGAGRTGRGPGSGKAPPAEISSGAPDFPGGDPIKILMPSLSPTMEEGNIVKWLKKEGEAVS  
 AGDALCEIETDKAVVTLASDDGILAKIVVEEGSKNIRLGLSLIGLIVEEGEDWKHVEIPKDVGPPPPVSK  
 PSEPRPSPEPQISIPVKKEHIPGTLRFRLSPAARNILEKHSLDASQGTATGPRGIFTKEDALKLVQLKQT  
 GKITESRPTAPATPTAPSPLQATAGPSYPRPVIPPVSTPGQPNVAVGTFTIIPASNIRRVIAKRLTESK  
 STVPHAYATADCDLGAVLKVRQDLVKDDIKVSVNDFI IKAHAVTLKQMPDVNVSWDGEGPKQLPFIDISV  
 AVATDKLLTPIIKDAAAKGIQEIADSVKALSKKARDGKLLPEEYQGGFSISNLGMFGIDEFTAVINPP  
 QACILAVGRFRPVKLKTEDEEGNAKLQQRQLITVTMSSDSRVVDELATRFLKSFKANLENPIRLA

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8064\\_h09.zip](https://cdn.origene.com/chromatograms/mk8064_h09.zip)

**Restriction Sites:**

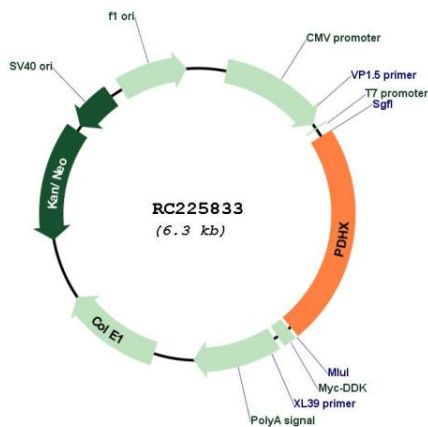
Sgfl-Mlul



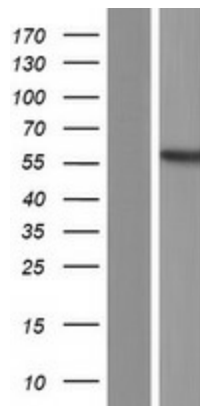
**Gene Summary:**

The pyruvate dehydrogenase (PDH) complex is located in the mitochondrial matrix and catalyzes the conversion of pyruvate to acetyl coenzyme A. The PDH complex thereby links glycolysis to Krebs cycle. The PDH complex contains three catalytic subunits, E1, E2, and E3, two regulatory subunits, E1 kinase and E1 phosphatase, and a non-catalytic subunit, E3 binding protein (E3BP). This gene encodes the E3 binding protein subunit; also known as component X of the pyruvate dehydrogenase complex. This protein tethers E3 dimers to the E2 core of the PDH complex. Defects in this gene are a cause of pyruvate dehydrogenase deficiency which results in neurological dysfunction and lactic acidosis in infancy and early childhood. This protein is also a minor antigen for antimitochondrial antibodies. These autoantibodies are present in nearly 95% of patients with the autoimmune liver disease primary biliary cirrhosis (PBC). In PBC, activated T lymphocytes attack and destroy epithelial cells in the bile duct where this protein is abnormally distributed and overexpressed. PBC eventually leads to cirrhosis and liver failure. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Oct 2009]

**Product images:**



Circular map for RC225833



Western blot validation of overexpression lysate (Cat# [LY427526]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225833 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).