

## Product datasheet for RC229907

### PDHB (NM\_001173468) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDHB (NM_001173468) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDHB
Synonyms:	PDHBD; PDHE1-B; PDHE1B; PHE1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229907 representing NM_001173468 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCGCGGTGTCTGGCTTGGTGCAGGACCCCTTCGGGAGGTCTCCGGCTGCTGAAGAGGCGCTTTC  
ACTGGACCGCGCCGGCTGCGCTGCAGGTGACAGTTCGTGATGCTATAAATCAGGGTATGGATGAGGAGCT  
GGAAAGAGATGAGAAGGTATTTCTGCTTGGAGAAGAAGTTGCCAGTATGATGGGCATACAAGGTTAGT  
CGAGGGCTGTGGAAGAAATATGGAGACAAGAGGATTATTGACACTCCCATATCAGAGATGGGCTTTGCTG  
GAATTGCTGTAGGTGCAGCTATGGCTGGTTGCGGCCATTTGTGAATTTATGACCTTCAATTTCTCCAT  
GCAAGCCATTGACCAGGTTATAAACTCAGCTGCCAAGACCTACTACATGTCTGGTGTAGCTGCCAGCAC  
TCACAGTGCTTTGCTGCCTGGTATGGGCACTGCCAGGCTTAAAGGTGGTCAATCCCTGGAATTCAGAGG  
ATGCTAAAGGACTTATTAATACGCCATTCGGGATAACAATCCAGTGGTGGTGTAGAGAATGAATTGAT  
GTATGGGGTTCCTTTGAATTTCTCCGGAAGCTCAGTCAAAGATTTTCTGATTCCTATTGGAAAAGCC  
AAAATAGAAAAGCAAGGAACACATAAATGTGGTTTCCATTCAAGACCTGTGGCCACTGCTTAGAAG  
CTGCAGCAGTGCATCTAAAGAAGGAGTTGAATGTGAGGTGATAAATATGCGTACCATTAGACCAATGGA  
CATGGAAACCATAGAAGCCAGTGCATGAAGACAAATCATCTTGAATGTGGAAGGAGGCTGGCCACAG  
TTTGGAGTAGGAGCTGAAATCTGTGCCAGGATCATGGAAGTCTGCCTCAATTTCTGGATGCTCCTG  
CTGTTCTGTCAGTGGTCTGATGCCCTATGCCCTATGCAAAGATTCTAGAGGACAACCTATACCTCA  
GGTCAAAGACATCATATTTGCAATAAAGAAAACATTAATATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC229907 representing NM\_001173468  
Red=Cloning site Green=Tags(s)

MAAVSGLVRRPLREVSGLLKRRFHWTAPAALQVTVRDAINQGMDEELERDEKVFLLGEEVAQYDGAYKVS  
 RGLWKKYGDKRIIDTPISEMGFAGIAVGAAMAGLRPICEFMTFNFSMQAIDQVINSAAKTYMSGVAAQH  
 SQCFAAWYGHCPGLKVVSPWNSEDAKGLIKSAIRDNNPVVLENELMYGVPFEPPEAQSKDFLIPIGKA  
 KIERQGTHITVVSHSRPVGHCLAAAVLSKEGVECEVINMRTIRPMDMETIEASVMKTNHLVTVVEGGWPQ  
 FGVGAEICARIMEGPAFNFLDAPAVRVTGADVMPYAKILEDNSIPQVKDIIIFAIKKTLLNI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8037\\_b05.zip](https://cdn.origene.com/chromatograms/mk8037_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001173468

**ORF Size:** 1023 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:**

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\\_001173468.1](#), [NP\\_001166939.1](#)

**RefSeq ORF:** 1026 bp

**Locus ID:** 5162

**UniProt ID:** [P11177](#)

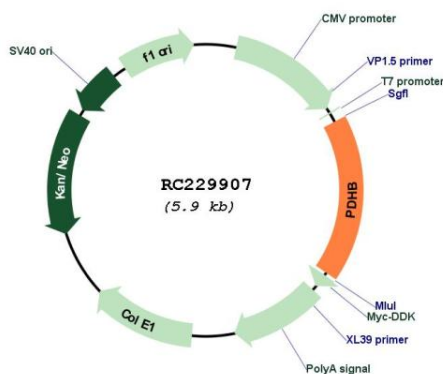
**Cytogenetics:** 3p14.3

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

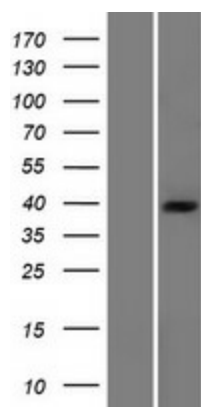
**MW:** 38 kDa

**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 carbon dioxide, 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 beta subunit. Mutations in this gene are associated with pyruvate dehydrogenase E1-beta deficiency. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Mar 2012]

## Product images:



Circular map for RC229907



Western blot validation of overexpression lysate (Cat# [LY432907]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229907 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).