

Product datasheet for RC205416

PDHA2 (NM_005390) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDHA2 (NM_005390) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDHA2
Synonyms:	PDHAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205416 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGGCCGCTTCATCTCCCGGTGTTGAGGCGAGTTGCCAGAAATCAGCTCGCAGAGTGCTGGTGG
CATCCCGTAACCTCAAATGACGCTACATTTGAAATTAAGAAATGTGATCTTTATCTGTTGGAAGAGGG
TCCCCCTGCTACTACAGTGCTCACTAGGCGGAGGGCTTAAATACTACAGGATGATGCTGACTGTTCCG
CGCATGGAATTGAAGCAGATCAGCTGTACAAACAGAAATTCATTCGCGTTCGTGACCTGTGCGATG
GTCAGGAAGCTTGTTCGCTGGCCTTGAGGCCGCATAAACCCTCGGATCACGTCATTACATCCTATAG
GGCTCATGGTGTGTGCTATACTCGGGACTTTCTGTCCGATCCATTCTCGCAGAGCTGACGGGAAGAAGA
GGAGGTTGTGCTAAAGGAAAAGGAGGATCGATGCATATGTATAACCAAGAACTTCTATGGGGCAATGGCA
TCGTCGGTGCACAGGGCCCCCTGGGCGCTGGCATTGCTCTGGCCTGTAATATAAAGGAAACGATGAGAT
CTGTTTGACTTTATATGGGGATGGCGCTGCGAATCAGGGGCAGATAGCCGAAGCTTTCAATATGGCAGCT
TTATGGAAATTACCTTGTGTTTTATCTGTGAGAATAACCTATATGGAATGGGAACATCTACTGAGAGAG
CAGCAGCCAGCCCTGATTACTACAAGAGGGCAATTTTATCCCTGGGCTAAAGGTCGATGGAATGGATGT
TCTGTGTGTTTCGTGAGGCAACAAAATTTGCAGTAACTACTGTAGATCTGGAAGGGGCCCATCTGATG
GAGCTGCAAACCTACCGTTATCATGGACACAGTATGAGTATCCTGGAGTCAGTTATCGTACACAGAGA
AAATTCAGGAAGTAAGAAGTAAGAGGGATCCTATAATAATTCTCCAAGATAGAATGGTAAACAGCAAGCT
CGCCACTGTGGAAGAATTAAGGAAATTTGGGGCTGAGGTGAGGAAAGAAATTTGATGATGCTGCCAGTTT
GCTACCACTGATCCTGAGCCACATTTGGAAGAATTAGGCCATCACATCTACAGCAGTGATTCATCTTTTG
AAGTTCGTGGTGCAATCCATGGATCAAGTTTAAAGTCCGTCAGT

ACGGTACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205416 protein sequence
Red=Cloning site Green=Tags(s)

MLAAFISRVLRRVAQKSARRVLVASRNSSNDATFEIKKCDLYLLEEGPPVTTVLTRA EGLKYRMLTVR
 RMELKADQLYKQKFI RGFCHLCDGQEACCVGLEAGINPSDHVITSYRAHGVCYTRGLSVRSILAELTGRR
 GGC AKGKGGSMHMYTKNFYGGNGIVGAQGPLGAGIALACKYKGNDEICLTLYGDGAANQGQIAEAFNMAA
 LWKLPVFCENNLYMGMTSTERAAA SPDYYKRGNFIPGLKVDGMDVLCVREATKFAANYCRSGKGPILM
 ELQTYRYHGHMSDPGVSYRTREEIQEVRSKRDP.IIILQDRMVNSKLATVEELKEIGA EVRKEIDDAAQF
 ATTDPEPHLEELGHHIYSSDSSFEVRGANPWIKFKSVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6536_h03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_005390

ORF Size: 1164 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_005390.5](#)

RefSeq Size: 1387 bp

RefSeq ORF: 1167 bp

Locus ID: 5161

UniProt ID: [P29803](#)

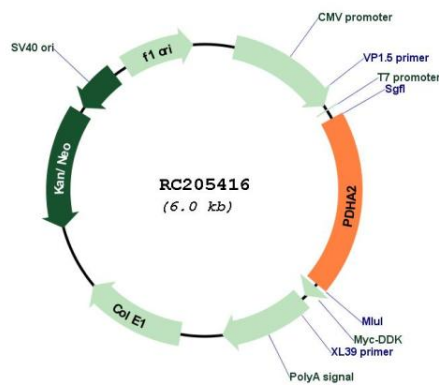
Cytogenetics: 4q22.3

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

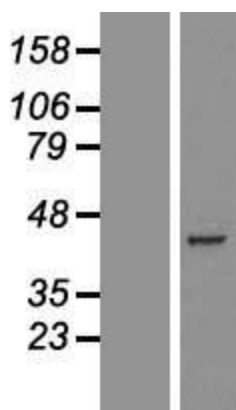
MW: 42.9 kDa

Gene Summary: The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO₂, and thereby links the glycolytic pathway to the tricarboxylic cycle. [UniProtKB/Swiss-Prot Function]

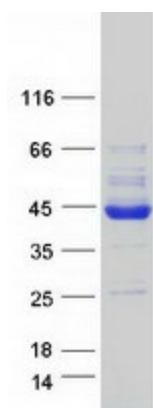
Product images:



Circular map for RC205416



Western blot validation of overexpression lysate (Cat# [LY417344]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205416 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDHA2 protein (Cat# [TP305416]). The protein was produced from HEK293T cells transfected with PDHA2 cDNA clone (Cat# RC205416) using MegaTran 2.0 (Cat# [TT210002]).