OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG203138

PDHX (NM_003477) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDHX (NM_003477) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDHX
Synonyms:	DLDBP; E3BP; OPDX; PDHXD; PDX1; proX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG203138 representing NM_003477
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCTCCTGGAGGCTGGGCTGTGATCCGCGGCTGCTGCGTTATCTTGTGGGCTTCCCTGGCCGCC
GAAGCGTAGGGCTGGTGAAGGGGGCTCTTGGGTGGTCTGTAAGCCGCGGAGCTAATTGGAGATGGTTTCA
CAGCACGCAGTGGCTTCGGGGTGATCCCATTAAGATACTAATGCCATCACTGTCTCCTACAATGGAAGAA
GGAAACATTGTGAAATGGCTGAAAAAGGAAGGTGAAGCGGTGAGTGCTGGAGATGCATTATGTGAAATTG
AGACTGACAAAGCTGTGGTTACCTTAGATGCAAGTGATGATGGAATCTTGGCCAAAATCGTGGTTGAAGA
AGGAAGTAAAAATATACGGCTAGGTTCACTAATTGGTTTGATAGTAGAAGAAGGAGAAGATTGGAAACAT
GTTGAAATTCCCAAAGACGTAGGTCCTCCACCACCAGTTTCAAAACCTTCAGAGCCTCGCCCCTCACCAG
AACCACAGATTTCCATCCCTGTCAAGAAGGAACACATACCCGGGACACTACGGTTCCGTTTAAGTCCAGC
TGCCCGCAATATTCTGGAAAAACACTCACTGGATGCTAGCCAGGGCACAGCCACTGGCCCTCGGGGGATA
TTCACTAAAGAGGATGCTCTCAAACTTGTCCAGTTGAAACAAACGGGCAAGATTACCGAGTCCAGACCAA
CTCCAGCCCCCACAGCCACTCCCACAGCACCTTCGCCCCTACAGGCCACAGCTGGACCATCTTATCCCCG
GCCTGTGATCCCACCAGTATCAACTCCTGGACAACCCAATGCAGTGGGCACATTCACTGAAATCCCCGCC
AGCAATATTCGAAGAGTCATTGCCAAGAGATTAACTGAATCTAAAAGTACTGTACCTCATGCATATGCTA
CTGCTGACTGTGACCTTGGAGCTGTTTTAAAAGTTAGGCAAGATCTGGTCAAAGATGACATTAAAGTATC
AGTAAATGATTTTATCATCAAGGCAGCAGCTGTTACCCTTAAACAAATGCCAGATGTTAATGTAAGCTGG
GATGGAGAGGGCCCAAAGCAACTGCCATTTATTGACATTTCAGTGGCTGTGGCAACAGTTAAAGGCTTAC
TTACTCCAATCATAAAAGATGCTGCTGCTAAAGGTATCCAGGAAATTGCTGACTCTGTAAAGGCTCTATC
AAAGAAAGCAAGAGATGGAAAATTGTTGCCTGAAGAATACCAAGGAGGATCTTTTAGTATTTCCAACTTG
GGGATGTTTGGCATCGACGAATTTACTGCAGTGATTAACCCTCCTCAGGCCTGCATTTTGGCGGTTGGGA
GGTTCCGACCTGTGCTGAAGCTCACTGAGGATGAAGAGGGAAATGCCAAACTGCAGCAGCGCCAGCTCAT
AACAGTCACAATGTCAAGTGACAGTCGAGTGGTTGATGACGAACTGGCAACCAGGTTTCTTAAAAGTTTT
AAAGCAAACCTAGAGAATCCTATCCGACTTGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

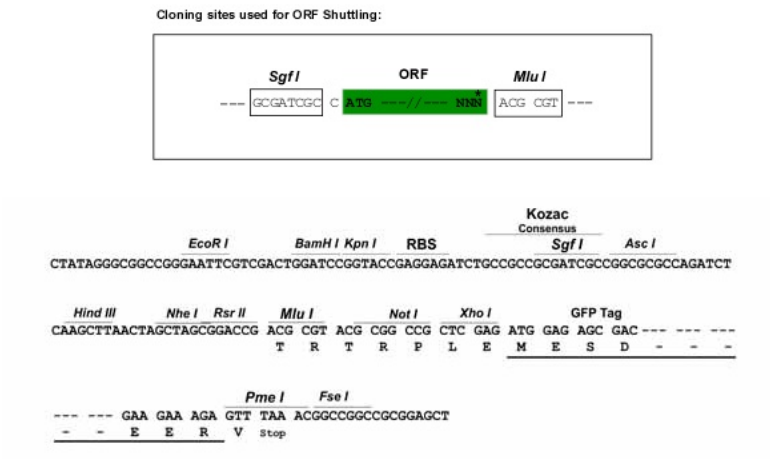
>RG203138 representing NM_003477
Red=Cloning site Green=Tags(s)

MAASWRLGCDPRLLRYLVGFPGRRSVGLVKGALGWSVSRGANWRWFHSTQWLRGDPIKILMPSLSPTMEE
GNIVKWLKKEGEAVSAGDALCEIETDKAVVTLDASDDGILAKIVVEEGSKNIRLGSLIGLIVEEGEDWKH
VEIPKDVGPPPPVSKPSEPRPSPEPQISIPVKKEHIPGTLRFRLSPAARNILEKHSLDASQGTATGPRGI
FTKEDALKLVQLKQTGKITESRPTPAPTATPTAPSPLQATAGPSYPRPVIPPVSTPGQPNAVGTFTEIPA
SNIRRVIAKRLTESKSTVPHAYATADCDLGAVLKVRQDLVKDDIKVSVNDFIIKAAAVTLKQMPDVNVSW
DGEGPKQLPFIDISVAVATVKGLLTPIIKDAAAKGIQEIADSVKALSKKARDGKLLPEEYQGGSFSISNL
GMFGIDEFTAVINPPQACILAVGRFRPVLKLTEDEEGNAKLQQRQLITVTMSSDSRVVDDELATRFLKSF
KANLENPIRLA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003477

ORF Size: 1503 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

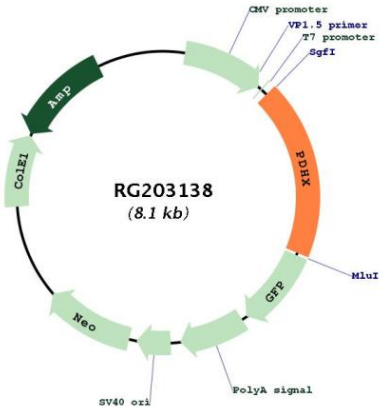
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_003477.1, NP_003468.1

RefSeq Size:	2365 bp
RefSeq ORF:	1506 bp
Locus ID:	8050
UniProt ID:	O00330
Cytogenetics:	11p13
Domains:	biotin_lipoyl, 2-oxoacid_dh, e3_binding
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 RG203138