

Product datasheet for **SC119970**

QDPR (NM_000320) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QDPR (NM_000320) Human Untagged Clone
Tag:	Tag Free
Symbol:	QDPR
Synonyms:	DHPR; HDHPR; PKU2; SDR33C1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119970 sequence for NM_000320 edited (data generated by NextGen Sequencing)

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ATGGCGGCGGCGGCGGCTGCAGGCGAGGCGGCCGGGTGCTGGTACGGCGGCAGGGC
GCTCTGGGTTCTCGATGCGTGCAGGCTTTTCGGGCCCGCAACTGGTGGGTGCCAGCGTT
GATGTGGTGGAGAATGAAGAGGCCAGCGCTAGCATCATTGTTAAAATGACAGACTCGTTC
ACTGAGCAGGCTGACCAGGTGACTGCTGAGGTTGGAAAGCTCTTGGTGAAGAGAAGGTG
GATGCAATTCTTTGCGTTGCTGGAGGATGGGCCGGGGCAATGCCAAATCCAAGTCTCTC
TTAAGAAGTGTGACCTGATGTGGAAGCAGAGCATATGGACATCGACCATCTCCAGCCAT
CTGGCTACCAAGCATCTCAAGGAAGGAGGCCTCCTGACCTGGCTGGCGCAAAGGCTGCC
CTGGATGGGACTCCTGGTATGATCGGGTACGGCATGGCCAAGGGTCTGTTCAACAGCTC
TGCCAGAGCCTGGCTGGGAAGAAGCAGCGGCATGCCGCCCGGGGCAGCCGCATCGCTGTG
CTCCCGGTTACCCCTGGATACCCCGATGAACAGGAAATCAATGCCTGAGGCTGACTTCAGC
TCCTGGACACCCTTAGAATTCCTAGTTGAACTTTCCATGACTGGATCACAGGAAAAAC
CGACCGAGCTCAGGAAGCCTAATCCAGGTGGTAACCACAGAAGGAAGGACGGAAGTCAAC
CCAGCATATTTTATAG
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Clone variation with respect to NM_000320.2



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000320 unedited
 GTTCACATTTGTAAACGACTCCTATAGGCGGCCCGCAATCGGCACGAGGGCGCTCCGGC
 TCGAGGCATTCGGAGCTGCGGGAGCCGGGCTGGCAGGAGCAGGATGGCGGCGGCGCGGC
 TGCAGGCGAGGCGCGCCGGGTGCTGGTGTACGGCGGCAGGGGCGCTCTGGGTTCTCGATG
 CGTGCAGGCTTTTCGGGCCCGCAACTGGTGGGTGCCAGCGTTGATGTGGTGGAGAATGA
 AGAGGCCAGCGCTAGCATCATTGTTAAAATGACAGACTCGTTCACTGAGCAGGCTGACCA
 GGTGACTGCTGAGGTTGGAAAGCTCTTGGGTGAAGAGAAGGTGGATGCAATTCTTTGCGT
 TGCTGGAGGATGGCCGGGGCAATGCCAAATCCAAGTCTCTCTTTAAGAACTGTGACCT
 GATGTGGAAGCAGAGCATATGGACATCGACCATCTCCAGCCATCTGGCTACCAAGCATCT
 CAAGGAAGGAGGCCTCCTGACCTTGGCTGGCGCAAAGGCTGCCCTGGATGGGACTCCTGG
 TATGATCGGGTACGGCATGGCCAAGGTGCTGTTACCAGCTCTGCCAGAGCCTGGCTGG
 GAAGAACAGCGGCATGCCGCCGNGCAGCCGCCATCGTGTGCTCCCGTTACCCTGNA
 TACCCCGATGAACAGGAAATCAATGCCTGNAGCTGACTTCAGCTCCTGGACACCCTAGA
 ATTCTAGTTGAAACTTTCCATGACTGGATCACAGGNAANAACCGACCGAGCTCANGAAG
 CCTAATCCAGGTGGTACCACAGAANGAANNAGCAGGACTCACCCAGCATATTTTAAAGCT
 CATCTCAGTGCCTATGAGGCCTGCCAGAAAGTACTACCTGTCTCATGTGGCCCTTGTGAG
 CCCTGTGTTTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000320 unedited
 ACTTCCAGGGCCGGNANAGGCACTGGGGAGGGTACAGGGATGCCACCCGGGATCTGTT
 CAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGG
 GGTGAAATATTTATTTTCAGGATTTAAATCCACCCCTTCCGAGAACACCAGATTAAGA
 CCTCCAGCAATCCATGATTCTAGTATACTCATCTCTGACTGGTGGATATAAGATGTGATT
 TGATTAAGAAGACAGACAACAAGTGCATTTATTAGGAACAACATTCTGAATACTCACGA
 GTAGTTATCTTGACACTTAACCCTAGGCCAGAGGACACAGGGCAACCACACAGGAAAAG
 GATACCAGGACAGAGTCCATGGAGTTTTGCTTATACCACAAAAGGAGTTAAGGCAGTTTTN
 NNTCAAGGATGCGAAAATACGTCTATGACATAAACATGACATTCAAAAATAACTCAGCC
 TTTAAATGTCCCAATACCAACAAATCAACAAAGTAGTCAAGATGACAGCCACTGTCAA
 GGACAGATGAACAGTCACAAAAGCGATCCACATGACACCGCTATAGCAGGTGCTATGCAG
 AGCCCTCCCTATGCAGTTAACACAGATTGACGGATGCTATTTGCAGGCCACCAGTCTCGC
 ATGTCTTTACTTACATAAATGTATTACACTGTCTTAGGAGAGCAAATGCATATTATGTGA
 GAGAAAATAGGACTCATTNNNNCGACCACAACAGGGGTTACAGAAACACAGGNCAGGAC
 AGGGCCCACTGAGACGGTTAGTGACTTTTCTGGCAGGCCCTCATAGGCCTGAGATGAGGC
 TANAAATGCTGGGGGAGGTCCGTCTCTTTGTGGGTACANCTGGNATAGCTNCTGACT
 CGGNCGTTTTTCTGTGATCGCATGGAAG

Restriction Sites:

NotI-NotI

ACCN:

NM_000320

Insert Size:

1500 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](#)

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_000320.1](#), [NP_000311.1](#)

RefSeq Size: 1550 bp

RefSeq ORF: 735 bp

Locus ID: 5860

UniProt ID: [P09417](#)

Cytogenetics: 4p15.32

Protein Families: Druggable Genome

Protein Pathways: Folate biosynthesis, Metabolic pathways

Gene Summary: This gene encodes the enzyme dihydropteridine reductase, which catalyzes the NADH-mediated reduction of quinonoid dihydrobiopterin. This enzyme is an essential component of the pterin-dependent aromatic amino acid hydroxylating systems. Mutations in this gene resulting in QDPR deficiency include aberrant splicing, amino acid substitutions, insertions, or premature terminations. Dihydropteridine reductase deficiency presents as atypical phenylketonuria due to insufficient production of biopterin, a cofactor for phenylalanine hydroxylase. [provided by RefSeq, Jul 2008]

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