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Product datasheet for RG217737

QDPR (NM_000320) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QDPR (NM_000320) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	QDPR
Synonyms:	DHPR; HDHPR; PKU2; SDR33C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG217737 representing NM_000320
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGGCGGCGGCTGCAGGCGAGGCGCGCCGGGTGCTGGTGTACGGCGGCAGGGGCGCTCTGGGTT
CTCGATGCGTGCAGGCTTTTCGGGCCCGCAACTGGTGGGTTGCCAGCGTTGATGTGGTGGAGAATGAAGA
GGCCAGCGCTACGATCATTGTTAAAATGACAGACTCGTTCACTGAGCAGGCTGACCAGGTGACTGCTGAG
GTTGGAAAGCTCTTGGGTGAAGAGAAGGTGGATGCAATTCTTTGCGTTGCTGGAGGATGGGCCGGGGGCA
ATGCCAAATCCAAGTCTCTCTTTAAGAACTGTGACCTGATGTGGAAGCAGAGCATATGGACATCGACCAT
CTCCAGCCATCTGGCTACCAAGCATCTCAAGGAAGGAGGCCTCCTGACCTTGGCTGGCGCAAAGGCTGCC
CTGGATGGGACTCCTGGTATGATCGGGTACGGCATGGCCAAGGGTGCTGTTCACCAGCTCTGCCAGAGCC
TGGCTGGGAAGAACAGCGGCATGCCGCCCGGGGCAGCCGCCATCGCTGTGCTCCCGGTTACCCTGGATAC
CCCGATGAACAGGAAATCAATGCCTGAGGCTGACTTCAGCTCCTGGACACCCTTAGAATTCCTAGTTGAA
ACTTTCCATGACTGGATCACAGGGAAAAACCGACCGAGCTCAGGAAGCCTAATCCAGGTGGTAACCACAG
AAGGAAGGACGGAACTCACCCCAGCATATTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

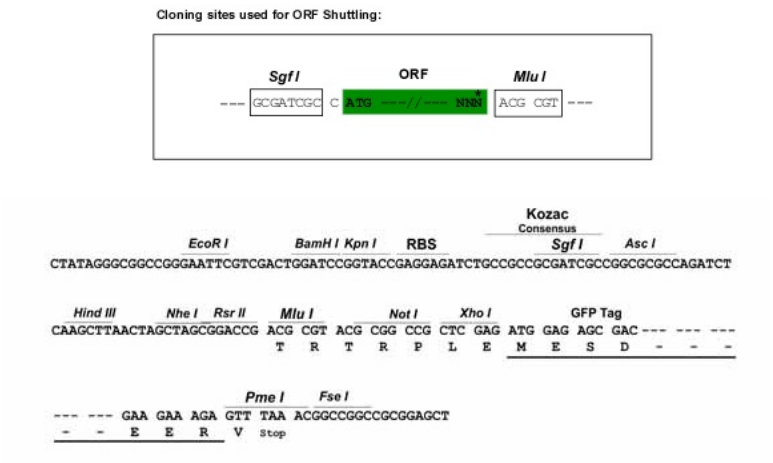
>RG217737 representing NM_000320
Red=Cloning site Green=Tags(s)

MAAAAAAGEARRVLVYGGRGALGSRCVQAFRARNWWVASVDVVENEEASATIIVKMTDSFTEQADQVTAE
VGKLLGEEKVDAILCVAGGWAGGNAKSKSLFKNCDLMWKQSIWTSTISSHLATKHLKEGGLLTLAGAKAA
LDGTPGMIGYGMAKGAVHQLCQSLAGKNSGMPPGAAAIAVLPVTLDTPMNRKSMPEADFSSWTPLEFLVE
TFHDWITGKNRPSSGSLIQVVTTEGRTELTPAYF

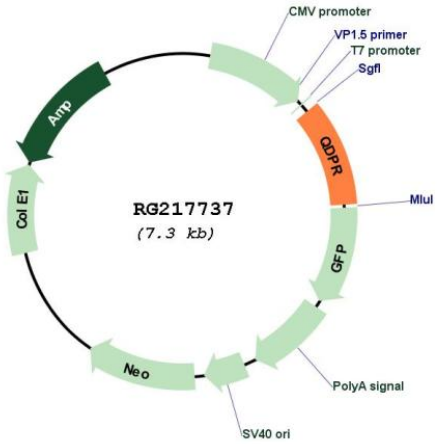
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_000320

ORF Size: 732 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_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]