

## Product datasheet for **RG237900**

### D2HGDH (NM\_001287249) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	D2HGDH (NM_001287249) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	D2HGDH
Synonyms:	D2HGD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237900 representing NM_001287249. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
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TTCAGGAAGAGGGACGTCTGGGCTACAGCAAGCCACCGGGGGCCCTGCAGCTCATGCAGCAGCTCAAG
GCCCTGTGGACCCCAAGGGCATCCTCAACCCCTACAAGACGCTGCCAGCCAGGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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Protein Sequence: >Peptide sequence encoded by RG237900  
 Blue=ORF Red=Cloning site Green=Tag(s)

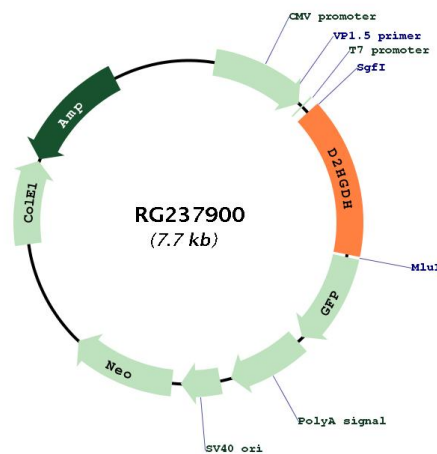
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 PPKPRAVNVAFVLCGPGFAEVLQTFSTCKGMLGEILSAFEFMDAVCMQLVGRHLHLASPVQESPFYVLI  
 TSGSNAGHDAEKLGHFLEHALGSLVTDGTMATDQRKVKMLWALRERITEALSRDGYVYKYDLSLPVER  
 LYDIVTDLRARLGPAAKHVVGYPYGLGDGNLHLNVTAEAFSPSLLAALEPHVYEWYAGQQGSVSAEHGVG  
 FRKRDVLGYSKPPGALQMLQQLKALLDPKGILNPKYKTLPSQA  
**TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
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 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



<b>ACCN:</b>	NM_001287249
<b>ORF Size:</b>	1161 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001287249.2</a>
<b>RefSeq Size:</b>	2276 bp
<b>RefSeq ORF:</b>	1164 bp
<b>Locus ID:</b>	728294
<b>UniProt ID:</b>	<a href="#">Q8N465</a>
<b>Cytogenetics:</b>	2q37.3
<b>MW:</b>	41.8 kDa
<b>Gene Summary:</b>	<p>This gene encodes D-2hydroxyglutarate dehydrogenase, a mitochondrial enzyme belonging to the FAD-binding oxidoreductase/transferase type 4 family. This enzyme, which is most active in liver and kidney but also active in heart and brain, converts D-2-hydroxyglutarate to 2-ketoglutarate. Mutations in this gene are present in D-2-hydroxyglutaric aciduria, a rare recessive neurometabolic disorder causing developmental delay, epilepsy, hypotonia, and dysmorphic features. [provided by RefSeq, Jul 2008]</p>