

## Product datasheet for **RG238043**

### Lipoamide Dehydrogenase (DLD) (NM\_001289750) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lipoamide Dehydrogenase (DLD) (NM_001289750) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DLD
Synonyms:	DLDD; DLDH; E3; GCSL; LAD; OGDC-E3; PHE3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238043 representing NM_001289750. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
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TCAGAAGCTTTTAGAGAAGCAAATCTTGCTGCGTCATTTGGCAAATCAATCAACTTT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG238043  
 Blue=ORF Red=Cloning site Green=Tag(s)

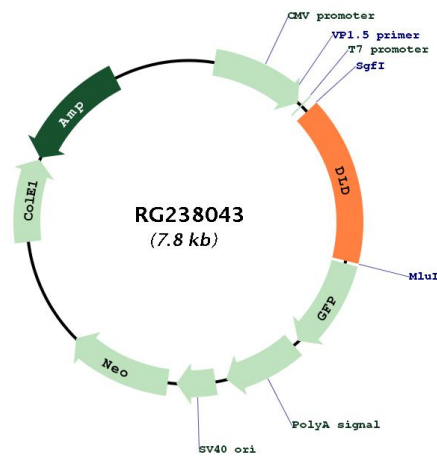
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 DVTAVEFLGHVGGVGDMEISKNFQRILQKQGFKLNKVTGATKKSDGKIDVSI EAASGGKAEVITC  
 DVLLVCIGRRPFTKNLGLEELGIELDRGRIPVNTRFQTKIPNIYAIGDVVAGPMLAHKAEDGEICVE  
 GMAGAVHIDYNCVPSVIYTHPEVAWVGKSEEQLKEEGIEYKVGKFPFAANSRAKTNADTGMVKILGQ  
 KSTDRVLGAHILGPGAGEMVNEAALALEYGASCEDIARVCHAHPTLSEAFREANLAASFSGKINP  
**TRTRPLEMESDESLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
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 SVIFTDKIIRSNTAVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



<b>ACCN:</b>	NM_001289750
<b>ORF Size:</b>	1230 bp
<b>OTI Disclaimer:</b>	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>
<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_001289750.1</a> , <a href="#">NP_001276679.1</a>
<b>RefSeq Size:</b>	3464 bp
<b>RefSeq ORF:</b>	1233 bp
<b>Locus ID:</b>	1738
<b>UniProt ID:</b>	<a href="#">P09622</a>
<b>Cytogenetics:</b>	7q31.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Citrate cycle (TCA cycle), Glycine, serine and threonine metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pyruvate metabolism, Valine, leucine and isoleucine degradation
<b>MW:</b>	44 kDa
<b>Gene Summary:</b>	This gene encodes a member of the class-I pyridine nucleotide-disulfide oxidoreductase family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. In homodimeric form, the encoded protein functions as a dehydrogenase and is found in several multi-enzyme complexes that regulate energy metabolism. However, as a monomer, this protein can function as a protease. Mutations in this gene have been identified in patients with E3-deficient maple syrup urine disease and lipoamide dehydrogenase deficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]