

Product datasheet for **RG235872**

DHFR (NM_001290357) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DHFR (NM_001290357) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: DHFR
Synonyms: DHFRP1; DYR
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235872 representing NM_001290357.
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTTGGTTCGCTAAACTGCATCGCTGTGTCCAGAACATGGGCATCGGCAAGAACGGGGACCTG
CCCTGGCCACCGCTCAGGAATGAATTCAGATATTTCCAGAGAATGACCACAACCTCTTCAGTAGAAGGT
AAACAGAATCTGGTGATTATGGGTAAGAAGACCTGGTTCTCCATTCCTGAGAAGAATCGACCTTTAAAG
GGTAGAATTAATTTAGTCTCAGCAGAGAACTCAAGGAACCTCCACAAGGAGCTCATTTCTTTCCAGA
AGTCTAGATGATGCCTTAAACTTACTGAACAACCAGAATTAGCAAATAAAGTAGACATGGTCTGGATA
GTTGGTGGCAGTTCTGTTTATAAGATACCCAGGTGTTCTCTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence: >Peptide sequence encoded by RG235872
Blue=ORF Red=Cloning site Green=Tag(s)

```
MVGS LN CIVAVSQNMGIGKNGDLPWPPLRNEFRYFQRM TTTSSVEGKQNLVIMGKKTWFSIPEKNRPLK
GRINLVLSRELKEPPQGAHFLSRSLDDALKLTEQPELANKVD MVWIVGGSSVYKIPRCSL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites: Sgfl-MluI

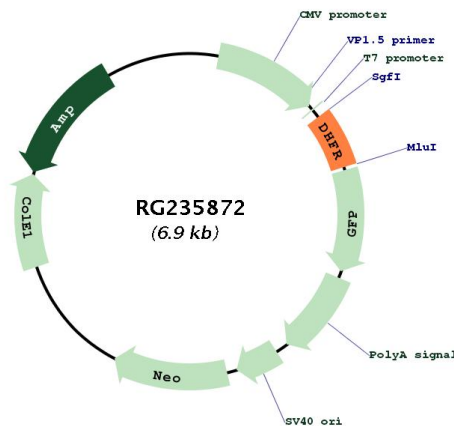


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001290357

ORF Size: 387 bp

OTI Disclaimer: 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).
RefSeq:	NM_001290357.2
RefSeq Size:	3816 bp
RefSeq ORF:	390 bp
Locus ID:	1719
Cytogenetics:	5q14.1
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Folate biosynthesis, Metabolic pathways, One carbon pool by folate
MW:	14.9 kDa
Gene Summary:	Dihydrofolate reductase converts dihydrofolate into tetrahydrofolate, a methyl group shuttle required for the de novo synthesis of purines, thymidylic acid, and certain amino acids. While the functional dihydrofolate reductase gene has been mapped to chromosome 5, multiple intronless processed pseudogenes or dihydrofolate reductase-like genes have been identified on separate chromosomes. Dihydrofolate reductase deficiency has been linked to megaloblastic anemia. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2014]