

Product datasheet for **RG235934**

DHFR (NM_001290354) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DHFR (NM_001290354) 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: >RG235934 representing NM_001290354.
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTGTAACCGTCAGAATTTGTAAACGACTCACTATAGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGTAGAAGACCTGGTTCTCCATTCCTGAGAAGAATCGACCTTTAAAGGGTAGAATTAATTTAGTT
CTCAGCAGAGAAGCTCAAGGAACCTCCACAAGGAGCTCATTTTCTTCCAGAAGTCTAGATGATGCCTTA
AACTTACTGAACAACCAGAATTAGCAAATAAAGTAGACATGGTCTGGATAGTTGGTGGCAGTTCTGTT
TATAAGGAAGCCATGAATCACCCAGGCCATCTAAACTATTTGTGACAAGGATCATGCAAGACTTTGAA
AGTGACACGTTTTTCCAGAAATTGATTTGGAGAAATATAAACTTCTGCCAGAATACCCAGGTGTTCTC
TCTGATGTCCAGGAGGAGAAAGCATTAAAGTACAATTTGAAGTATATGAGAAGAATGAT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence: >Peptide sequence encoded by RG235934
Blue=ORF Red=Cloning site Green=Tag(s)

```
MGKKTWFSIPEKNRPLKGRINL VLSRELKEPPQGAHFLSRSLDDALKL TEQPELANKVDMMWIVGGSSV
YKEAMNHPGHLKLFVTRIMQDFESDTFFPEIDLEKYKLLPEYPGVLSDVQEEKGIKYKFEVYEKND
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites: SgfI-MluI



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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_001290354.2
RefSeq Size:	3882 bp
RefSeq ORF:	408 bp
Locus ID:	1719
UniProt ID:	P00374
Cytogenetics:	5q14.1
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Folate biosynthesis, Metabolic pathways, One carbon pool by folate
MW:	16.1 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]