

## Product datasheet for RC209034

### DHODH (NM\_001361) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DHODH (NM_001361) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DHODH
Synonyms:	DHOdehase; POADS; URA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209034 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTGGAGACACCTGAAAAAGCGGGCCAGGATGCTGTGATCATCCTGGGGGAGGAGGACTTCTCT  
TCGCTCTACCTGATGGCCACGGGAGATGAGCGTTTCTATGCTGAACACCTGATGCCGACTCTGCAGGG  
GCTGCTGGACCCGGAGTCAGCCACAGACTGGCTGTTTCGTTTACCTCCCTGGGGCTCTTCCACGGGCC  
AGATTTCAAGACTCTGACATGCTGGAAGTGAGAGTTCTGGCCATAAATCCGAAATCCAGTAGGAATTG  
CTGCAGGATTTGACAAGCATGGGAAGCCGTGGACGGACTTTATAAGATGGGCTTTGGTTTTGTTGAGAT  
AGGAAGTGTGACTCCAAAACCTCAGGAAGGAAACCTAGACCCAGAGTCTTCCGCCTCCCTGAGGACCAA  
GCTGTCAATTAACAGGTATGGATTTAACAGTCACGGGCTTTCAGTGGTGAACACAGGTTACGGGCCAGAC  
AGCAGAAGCAGGCCAAGCTCACAGAAGATGGACTGCCTCTGGGGTCAACTTGGGGAAGAACAAGACCTC  
AGTGGACGCCCGGAGGACTACGCAGAAGGGGTGCGCGTACTGGGCCCTGGCCGACTACCTGGTGGTG  
AATGTGTCAGCCCCAACACTGCCGGCTGCGGAGCCTTCAGGAAAGGCCGAGCTGCGCCGCTGCTGA  
CCAAGTGCTGCAGGAGAGGGATGGCTTGGGAGAGTGACAGGCCGGCAGTCTGGTGAAGATCGCTCC  
TGACCTCACAGCCAGGATAAAGGAGACATTGCCAGTGTGGTCAAAGAGTTGGGCATCGATGGGCTGATT  
GTTACGAACACCACCGTGAGTCGCCCTGCGGGCCTCCAGGTGCCCTGCGCTCTGAAACAGGAGGGCTGA  
GTGGGAAGCCCTCCGGATTTATCAACTCAAACCATTCCGGGAGATGTATGCACTACCCAAAGGCCGAGT  
TCCCATATTGGGTTGGTGGTGTGAGCAGCGGCAGGACGCGCTGGAGAAGATCCGGGCAGGGGCTCC  
CTGGTGCAGCTGTACACGGCCCTCACCTTCTGGGGCCACCCGTTGTGGGCAAAGTCAAGCGGAACTGG  
AGGCCCTTCTGAAAGAGCAGGGCTTTGGCGGAGTCACAGATGCCATTGGAGCAGATCATCGGAGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC209034 protein sequence  
Red=Cloning site Green=Tags(s)

MAWRHLKKRAQDAVIILGGGGLLFASYLMATGDERFYAEHLMPTLQGLLDPESAHRLAVRFTSLGLLPRA  
 RFQSDMLEVRVLGHKFRNPVGI AAGFDKHGEAVDGLYKMGFGFVEIGSVTPKPKQEGNPRPRVFRLPEDQ  
 AVINRYGFNSHGLSVVEHRLRARQQKQAKLTEDGLPLGVNLGKNKTSVDAEDYAEGVVRVLGPLADYLVV  
 NVSSPNTAGLRSLQGKALRRLKTKVLQERDGLRRVHRPAVLVKIAPDLTSQDKEDIASVVKELGIDGLI  
 VTNTTVSRPAGLQGALRSETGGLSGKPLRDLSTQTIREMYALTQGRVPIIGVGGVSSGQDALEKIRAGAS  
 LVQLYTALTFWGPVVGKVKRELEALLKEQGGVTD AIGADHRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6231\\_g09.zip](https://cdn.origene.com/chromatograms/mk6231_g09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001361

**ORF Size:** 1185 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).

**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\\_001361.5](#)

**RefSeq Size:** 2438 bp

**RefSeq ORF:** 1188 bp

**Locus ID:** 1723

**UniProt ID:** [Q02127](#)

**Cytogenetics:** 16q22.2

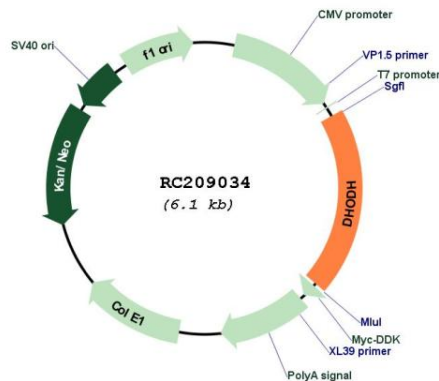
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Metabolic pathways, Pyrimidine metabolism

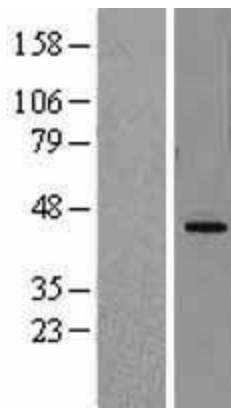
**MW:** 42.9 kDa

**Gene Summary:** The protein encoded by this gene catalyzes the fourth enzymatic step, the ubiquinone-mediated oxidation of dihydroorotate to orotate, in de novo pyrimidine biosynthesis. This protein is a mitochondrial protein located on the outer surface of the inner mitochondrial membrane. [provided by RefSeq, Jul 2008]

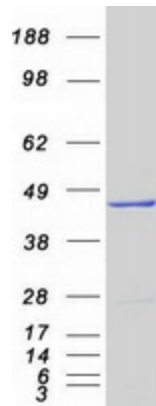
### Product images:



Circular map for RC209034



Western blot validation of overexpression lysate (Cat# [LY419975]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209034 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DHODH protein (Cat# [TP309034]). The protein was produced from HEK293T cells transfected with DHODH cDNA clone (Cat# RC209034) using MegaTran 2.0 (Cat# [TT210002]).