

## Product datasheet for **RG238359**

### Ornithine Decarboxylase (ODC1) (NM\_001287190) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ornithine Decarboxylase (ODC1) (NM_001287190) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ODC1
Synonyms:	BABS; NEDBA; NEDBIA; ODC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238359 representing NM_001287190. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTGAAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAACAACCTTTGGTAATGAAGAGTTTGTACTGCCACTTCCTCGATGAAGGTTTTACTGCCAAGGACATT
CTGGACCAGAAAATTAATGAAGTTTCTTCTTCTGATGATAAGGATGCCTTCTATGTGGCAGACCTGGGA
GACATTCTAAAGAAACATCTGAGGTGGTAAAAGCTCTCCCTCGTGTACCCCTTTTATGCAGTCAAA
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GTG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```



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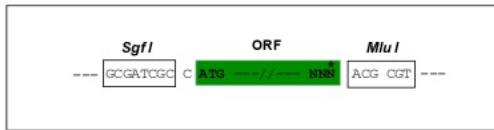
**Protein Sequence:** >Peptide sequence encoded by RG238359  
 Blue=ORF Red=Cloning site Green=Tag(s)

MNCFGNEEFDCHFLDEGFTAKDILDQKINEVSSDDKDAFYVADLGDILKKHLRWLKAIPRVTPFYAVK  
 CNDSKAIVKTLAATGTGDFCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVE  
 LMKVARAHPKAKLVLRITDSSKAVCRLSVKFGATLRTRSRLLLERAKELNIDVVGVSFHVGSCTDPET  
 FVQAISDARCVFDMGAEVGFSMYLLDIGGGFPGSEDEVKLFEEITGVINPALDKYFSDSGVRIIAEPG  
 RYYVASAFTLAVNIIAKKIVLKEQTGSDDDESESEQTFMYVYVNDGVYGSFNCILYDHAHVKPLLQKRPK  
 PDEKYYSSSIWGPCTDGLDRIVERCDLPEMHVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMGSPAW  
 QLMQQFQNPDPFPEVEEQDASTLPVSCAWESGMKRHRAACASASINV  
**TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



Kozac  
Consensus

EcoRI      BamHI KpnI      RBS      SgfI      AscI

CTATAGGCGCGCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCCGCGCATCGCCGCGCCAGATCT

HindIII      NheI RsrII      MluI      NotI      XhoI      GFP Tag

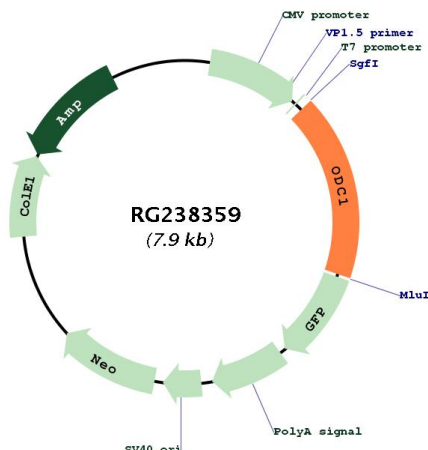
CAAGCTTAACTAGCTAGCGGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - - -

T R T R P L E M E S D - - -

PmeI      FseI

- - - GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - E E R V Stop

**Plasmid Map:**


**ACCN:** NM\_001287190

**ORF Size:** 1383 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\\_001287190.2](#)

**RefSeq Size:** 2045 bp

**RefSeq ORF:** 1386 bp

**Locus ID:** 4953

**UniProt ID:** [P11926](#)

**Cytogenetics:** 2p25.1

**Protein Families:** Druggable Genome

**Protein Pathways:** Arginine and proline metabolism, Glutathione metabolism, Metabolic pathways

**MW:** 51.1 kDa

**Gene Summary:**

This gene encodes the rate-limiting enzyme of the polyamine biosynthesis pathway which catalyzes ornithine to putrescine. The activity level for the enzyme varies in response to growth-promoting stimuli and exhibits a high turnover rate in comparison to other mammalian proteins. Originally localized to both chromosomes 2 and 7, the gene encoding this enzyme has been determined to be located on 2p25, with a pseudogene located on 7q31-qter. Multiple alternatively spliced transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Dec 2013]