

## Product datasheet for **RC206858**

### Ornithine Decarboxylase (ODC1) (NM\_002539) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ornithine Decarboxylase (ODC1) (NM_002539) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ornithine Decarboxylase
Synonyms:	BABS; NEDBA; NEDBIA; ODC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC206858 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAACAACCTTTGGTAAATGAAGAGTTTACTGCCAAGGACATTC  
 TGGACCAGAAAATTAATGAAGTTTCTTCTGATGATAAGGATGCCTTCTATGTGGCAGACCTGGGAGA  
 CATTCTAAAGAAACATCTGAGGTGGTAAAAGCTCTCCCTCGTGTACCCCTTTTATGCAGTCAAATGT  
 AATGATAGCAAAGCCATCGTGAAGACCCTTGTGCTACCGGGACAGGATTTGACTGTGCTAGCAAGACTG  
 AAATACAGTTGGTGCAGAGTCTGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTGTAAACAAGT  
 ATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTTGATG  
 AAAGTTGCCAGAGCACATCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTCAAAGCAGTCT  
 GTCGTCTCAGTGTGAAATTCGGTGCCACGCTCAGAACCAGCAGGCTCCTTTTGAACGGGCGAAAGAGCT  
 AAATATCGATGTTGTTGGTGTGAGTTCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAG  
 GCAATCTCTGATGCCCGCTGTGTTTTGACATGGGGGCTGAGTTGGTTTCAGCATGTATCTGCTTGATA  
 TTGGCGGTGGCTTCTGGATCTGAGGATGTGAACTTAAATTTGAAGAGATCACCGCGTAATCAACCC  
 AGCGTTGGACAAATACTTCCGTGAGACTCTGGAGTGAGAATCATAGCTGAGCCCGCAGATACTATGTT  
 GCATCAGCTTTCACGCTTGCAGTAAATATCATTGCCAAGAAAATTGTATTAAGGAACAGACGGGCTCTG  
 ATGACGAAGATGAGTGCAGTGCAGACCTTTATGATTTATGTGAATGATGGCGTCTATGGATCATTTAA  
 TTGCATACTCTATGACCACGCACATGTAAGCCCTTCTGCAAAAGAGACCTAAACCAGATGAGAAGTAT  
 TATTCATCCAGCATATGGGGACCAACATGTGATGGCCTCGATCGGATTGTTGAGCGCTGTGACCTGCCTG  
 AAATGCATGTGGTGTGATGCTCTTTGAAAACATGGGCGCTTACACTGTTGCTGCTCCTACGTT  
 CAATGGCTTCCAGAGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTGGCAACTCATGCAGCAATTC  
 CAGAACCCTGACTTCCACCCGAAGTAGAGGAACAGGATGCCAGCACCTGCCTGTGCTTGTGCCTGGG  
 AGAGTGGGATGAAACGCCACAGAGCAGCTGTGCTTCGGCTAGTATTAATGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206858 protein sequence  
 Red=Cloning site Green=Tags(s)

MNFGNEEFDCHFLDEGFTAKDILDQKINEVSSDDKDAFYVADLGDILKKHLRWLKALPRVTPFYAVKC  
 NDSKAIVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVELM  
 KVARAHPKAKLVLRIATDDSKAVCRLSVKFGATLRTRSLLLERAKELNIDVVGVSFHVSGCTDPETFVQ  
 AISDARCVFDMGAEVGFSMYLLDIGGGFPGSEDEVKLFEEITGVINPALDKYFSDSGVRIIAEPGRYYV  
 ASAFTLAVNIIAKKIVLKEQTGSDEDESEQTFMYVYVNDGVYGSFNCILYDHAHVKPLLQKRPKPEDEKY  
 YSSSIWGPTCDGLDRIVERCDLPEMHVGDWMLFENMGAYTVAASSTFNGFQRPTIYYVMSPAWQLMQQF  
 QNPDPFPEVEEQDASTLPVSCAWESGMKRHRAACASASIN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6177\\_c08.zip](https://cdn.origene.com/chromatograms/mk6177_c08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_002539

**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).

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_002539.3](#)

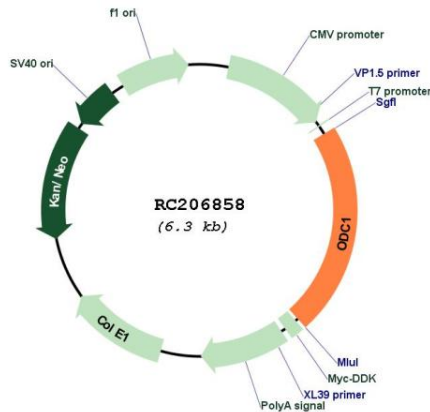
**RefSeq Size:** 2307 bp

**RefSeq ORF:** 1386 bp

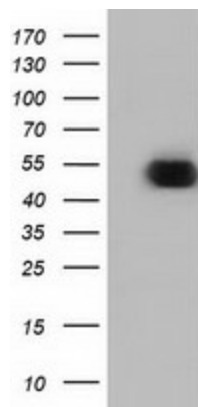
**Locus ID:** 4953

**UniProt ID:** [P11926](#)  
**Cytogenetics:** 2p25.1  
**Domains:** Orn\_Arg\_deC\_N  
**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]

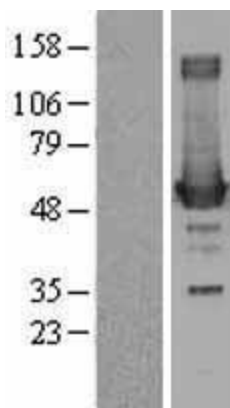
### Product images:



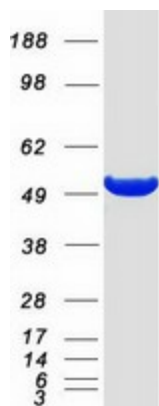
Circular map for RC206858



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ODC1 (Cat# RC206858, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ODC1 (Cat# [TA501286]). Positive lysates [LY400909] (100ug) and [LC400909] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400909]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206858 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ODC1 protein (Cat# [TP306858]). The protein was produced from HEK293T cells transfected with ODC1 cDNA clone (Cat# RC206858) using MegaTran 2.0 (Cat# [TT210002]).