

## Product datasheet for **RG232733**

### DOPA Decarboxylase (DDC) (NM\_001242886) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DOPA Decarboxylase (DDC) (NM_001242886) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DDC
Synonyms:	AADC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG232733 representing NM_001242886 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACGCAAGTGAATCCGAAGGAGAGGGAAGGAGATGGTGGATTACGTGGCCAACTACATGGAAGGCA  
TTGAGGGACGCCAGGTCTACCCTGACGTGGAGCCGGGTACCTGCGGCCGCTGATCCCTGCCGCTGCCCC  
TCAGGAGCCAGACAGTTTGAGGACATCATCAACGACGTTGAGAAGATAATCATGCCTGGGGCGGCAAGC  
CCAGCATGCACAGAGCTGGAGACTGTGATGATGGACTGGCTCGGAAGATGCTGGAACACCAAAGGCAT  
TTTTGAATGAGAAAGCTGGAGAAGGGGAGGAGTATCCAGGGAAGTCCAGTGAAGCCACCTGGTGGC  
CCTGCTGGCCGCTCGGACCAAAGTATCCATCGGCTGCAGGCAGCGTCCCAGAGCTCACACAGGCCGCT  
ATCATGGAGAAGCTGGTGGCTTACTCATCCGATCAGGCACACTCCTCAGTGGAAAGAGCTGGGTTAATTG  
GTGGAGTGAATTTAAAGCCATCCCCTCAGATGGCAACTTCGCCATGCGTGCCTCTGCCCTGCAGGAAGC  
CCTGGAGAGAGACAAAGCGGCTGGCCTGATTCCTTTCTTTATGGTTGCCACCTGGGGACCACAACATGC  
TGCTCCTTTGACAATCTCTTAGAAGTCGGTCTATCTGCAACAAGGAAGACATATGGCTGCACGTTGATG  
CAGCCTACGCAGGCAGTGCATTCATCTGCCCTGAGTCCGGCACCTTCTGAATGGAGTGGAGTTTGAGA  
TTCATTTCAACTTTAATCCCCACAATGGCTATTGGTGAATTTGACTGTTCTGCCATGTGGGTGAAAAAG  
AGAACAGACTTAACGGGAGCCTTTAGACTGGACCCCACTTACCTGAAGCACAGCCATCAGGATTCAGGGC  
TTATCACTGACTACCGGATTGGCAGATACCACTGGGCAGAAGATTTGCTCTTTGAAAATGTGGTTTGT  
ATTTAGGATGTATGGAGTCAAAGGACTGCAGGCTTATATCCGCAAGCATGTCCAGCTGTCCCATGAGTTT  
GAGTCACTGGTGCAGGATCCCCGCTTTGAAATCTGTGTGGAAGTCATTCTGGGGCTGTCTGCTTTT  
GGCTAAAGGGTTCCAACAAAGTGAATGAAGCTCTTCTGCAAGAATAAACAGTGCACAAAAAATCCACTT  
GGTTCCATGTACCTCAGGGACAAGTTTGTCTGCGCTTTGCCATCTGTTCTCGCACGGTGGAACTGCCC  
CATGTGCAGCGGGCTGGGAACACATCAAAGAGCTGGCGCCGACGTGCTGCGAGCAGAGAGGGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG232733 representing NM\_001242886  
Red=Cloning site Green=Tags(s)

MNASEFRRRGKEMVDYVANYMEGIEGRQVYPDVEPGYLRPLIPAAAPQEPDTFEDIINDVEKIIMPGAAS  
 PACTELETVMMDWL GKMLEL PKAFLNEKAGEGGGVIQGSASEATLVALLAARTKVIHRLQAASPELTQAA  
 IMEKL VAYSSDQAHSSVERAGL IGGVKLKAIPSDGNFAMRASALQEALERDKAAGLIPFFMVATLGTTC  
 CSFDNLLLEVGPICNKEDIWLHVDAAYAGSAFICPEFRHLLNGVEFADSFNPNPKWLLVNFDCSAMWVKK  
 RTDLTGAFRLDPTYLKHSHQDSGLITDYRHWQIPLGRRFRSLKMWVFRMYGVKGLQAYIRKHVQLSHEF  
 ESLVRQDPRFEICVEVILGLVCFRLKGSNKVNEALLQRINSAKKIHLVPCHLRDKFVLRFAICSRVESA  
 HVQRAWEHIKELAADVLAERE

TRTRPLE - GFP Tag - V

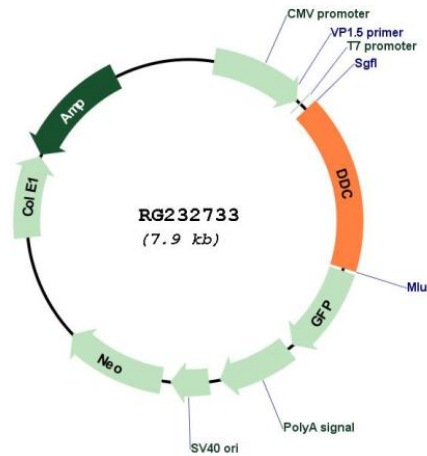
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001242886

<b>ORF Size:</b>	1326 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001242886.1</a> , <a href="#">NP_001229815.1</a>
<b>RefSeq Size:</b>	1861 bp
<b>RefSeq ORF:</b>	1329 bp
<b>Locus ID:</b>	1644
<b>UniProt ID:</b>	<a href="#">P20711</a>
<b>Cytogenetics:</b>	7p12.2-p12.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Histidine metabolism, Metabolic pathways, Phenylalanine metabolism, Tryptophan metabolism, Tyrosine metabolism
<b>Gene Summary:</b>	The encoded protein catalyzes the decarboxylation of L-3,4-dihydroxyphenylalanine (DOPA) to dopamine, L-5-hydroxytryptophan to serotonin and L-tryptophan to tryptamine. Defects in this gene are the cause of aromatic L-amino-acid decarboxylase deficiency (AADCD). AADCD deficiency is an inborn error in neurotransmitter metabolism that leads to combined serotonin and catecholamine deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jun 2011]