

Product datasheet for RC232710

DOPA Decarboxylase (DDC) (NM_001242887) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | DOPA Decarboxylase (DDC) (NM_001242887) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | DDC |
| Synonyms: | AADC |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |
| ORF Nucleotide Sequence: | >RC232710 representing NM_001242887 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAACGCAAGTGAATCCGAAGGAGAGGGAAGGAGATGGTGGATTACGTGGCCAACTACATGGAAGGCA
TTGAGGGACGCCAGGTCTACCTGACGTGGAGCCCGGTACCTGCGGCCGCTGATCCCTGCCGCTGCCCC
TCAGGAGCCAGACACGTTTGAGGACATCATCAACGACGTTGAGAAGATAATCATGCCTGGGGTGACGCAC
TGGCACAGCCCCTACTTCTCGCCTACTTCCCCACTGCCAGCTCGTACCCGGCCATGCTTGCGGACATGC
TGTGCGGGGCCATTGGCTGCATCGGCTTCTCTGGGCGGCAAGCCAGCATGCACAGAGCTGGAGACTGT
GATGATGGACTGGCTCGGGAAGATGCTGGAACACCAAAGGCATTTTTGAATGAGAAAGCTGGAGAAGGG
GGAGGAGTGATCCAGGGAAGTGCCAGTGAAGCCACCCTGGTGGCCCTGCTGGCCGCTCGGACCAAAGTGA
TCCATCGGCTGCAGGCAGCGTCCCAGAGCTCACACAGGCCGCTATCATGGAGAAGCTGGTGGCTTACTC
ATCCGATCAGATGGTTGCCACCCTGGGGACCACAACATGCTGCTCCTTTGACAATCTCTTAGAAGTCGGT
CCTATCTGCAACAAGGAAGACATATGGCTGCACGTTGATGCAGCCTACGCAGGCAGTGCATTCATCTGCC
CTGAGTTCGGCACCTTCTGAATGGAGTGGAGTTGCAGATTCATCAACTTTAATCCCCACAAATGGCT
ATTGGTGAATTTTGACTGTTCTGCCATGTGGGTGAAAAAGAGAACAGACTTAACGGGAGCCTTTAGACTG
GACCCCACTTACCTGAAGCACAGCCATCAGGATTCAGGGCTTACTACTGACTACCGGCATTGGCAGATAC
CACTGGGCAGAAGATTCGCTCTTTGAAAATGTGGTTTGTATTTAGGATGTATGGAGTCAAAGGACTGCA
GGCTTATATCCGCAAGCATGTCCAGCTGTCCCATGAGTTTGAGTCACTGGTGCAGCAGGATCCCCGCTTT
GAAATCTGTGTGGAAGTCATTCTGGGGCTGTCTGCTTTTCGGCTAAAGGGTTCCAACAAAGTGAATGAAG
CTCTTCTGCAAGAATAAACAGTGCCAAAAAATCCACTTGGTTCATGTACCTCAGGGACAAGTTTGT
CCTGCGCTTTGCCATCTGTTCTCGCACGGTGAATCTGCCATGTGCAGCGGGCTGGGAACACATCAA
GAGCTGGCGGCCGACGTGCTGCGAGCAGAGAGGGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC232710 representing NM_001242887
Red=Cloning site Green=Tags(s)

MNASEFRRRGKEMVDYVANYMEGIEGRQVYPDVEPGYLRPLIPAAAPQEPDTFEDIINDVEKIIMPGVTH
 WHSPYFFAYFPTASSYPAMLADMLCGAIGCIGFSAASPACELETVMMDWL GKMLELPKAFLEKAGEG
 GGVIQGSASEATLVALLAARTKVIHRLQAASPELTQAAIMEKLVAYSSDQMVATLGGTTCCSFDNLLLEV
 PICNKEDIWLHVDAAYAGSAFICPEFRHLLNGVEFADSFNFNPHKWLLVNFDCSAMVVKRDLTGAFRL
 DPTYLKSHQDSLITDYRHWQIPLGRRFRSLKMWFVFRMYGVKGLQAYIRKHVQLSHEFESLVRQDPRF
 EICVEVILGLVCFRLKGSNKVNEALLQRINSAKKIHLVPCHLRDKFVLRFAICSRTVESAHVQRAWHEIK
 ELAADVLAERE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

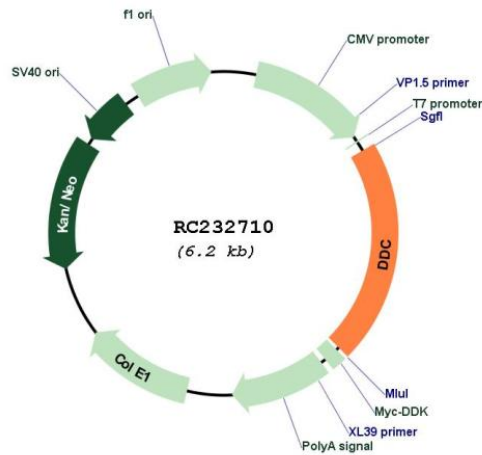
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001242887

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| ORF Size: | 1296 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: | <ol style="list-style-type: none">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_001242887.1 , NP_001229816.1 |
| RefSeq Size: | 1831 bp |
| RefSeq ORF: | 1299 bp |
| Locus ID: | 1644 |
| UniProt ID: | P20711 |
| Cytogenetics: | 7p12.2-p12.1 |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Histidine metabolism, Metabolic pathways, Phenylalanine metabolism, Tryptophan metabolism, Tyrosine metabolism |
| MW: | 49.4 kDa |
| Gene Summary: | 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] |