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Product datasheet for RC232521

DOPA Decarboxylase (DDC) (NM_001242890) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DOPA Decarboxylase (DDC) (NM_001242890) 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:	>RC232521 representing NM_001242890 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAACGCAAGTGAATTCCGAAGGAGAGGGAAGGAGATGGTGGATTACGTGGCCAACTACATGGAAGGCA TTGAGGGACGCCAGGTCTACCCTGACGTGGAGCCCGGGTACCTGCGGCCGCTGATCCCTGCCGCTGCCCC TCAGGAGCCAGACACGTTTGAGGACATCATCAACGACGTTGAGAAGATAATCATGCCTGGGGTGACGCAC TGGCACAGCCCCTACTTCTTCGCCTACTTCCCCACTGCCAGCTCGTACCCGGCCATGCTTGCGGACATGC TGTGCGGGGCCATTGGCTGCATCGGCTTCTCCTGGGCGGCAAGCCCAGCATGCACAGAGCTGGAGACTGT GATGATGGACTGGCTCGGGAAGATGCTGGAACTACCAAAGGCATTTTTGAATGAGAAAGCTGGAGAAGGG GGAGGAGTGATCCAGGGAAGTGCCAGTGAAGCCACCCTGGTGGCCCTGCTGGCCGCTCGGACCAAAGTGA TCCATCGGCTGCAGGCAGCGTCCCCAGAGCTCACACAGGCCGCTATCATGGAGAAGCTGGTGGCTTACTC ATCCGATCAGGCACACTCCTCAGTGGAAAGAGCTGGGTTAATTGGTGGAGTGAAATTAAAAGCCATCCCC TCAGATGGCAACTTCGCCATGCGTGCGTCTGCCCTGCAGGAAGCCCTGGAGAGAGACAAAGCGGCTGGCC TGATTCCTTTCTTTATGGTTGCCACCCTGGGGACCACAACATGCTGCTCCTTTGACAATCTCTTAGAAGT CGGTCCTATCTGCAACAAGGAAGACATATGGCTGCACGTTGATGCAGCCTACGCAGGCAGTGCATTCATC TGCCCTGAGTTCCGGCACCTTCTGAATGGAGTGGAGTTTGCAGATTCATTCAACTTTAATCCCCACAAAT GGCTATTGGTGAATTTTGACTGTTCTGCCATGTGGTCCAGACAACCAGTGCGTATGTTAAGGCTGAAGAA AACCTGCTTAGTCAGTGCGGTGGTGAGAAGGAGT ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

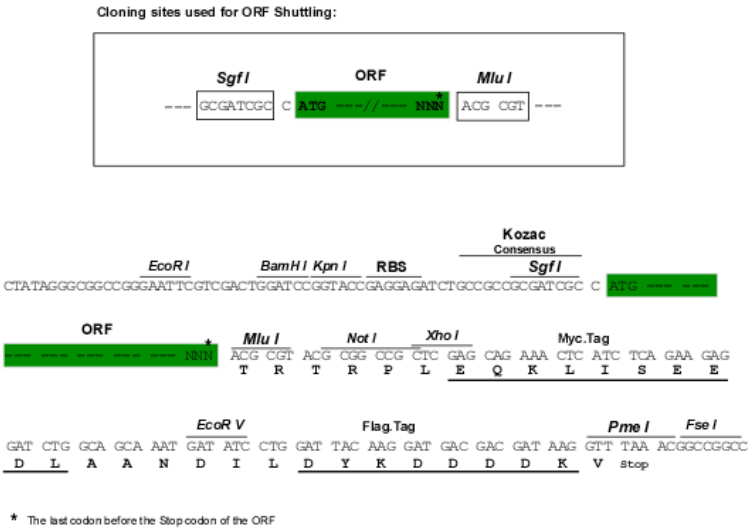
>RC232521 representing NM_001242890
Red=Cloning site Green=Tags(s)

MNASEFRRRGKEMVDYVANYMEGIEGRQVYPDVEPGYLRPLIPAAAPQEPDTFEDIINDVEKIIMPGVTH
WHSPYFFAYFPTASSYPAMLADMLCGAIGCIGFSWAASPACTELETVMMDWLGKMLELPKAFLNEKAGEG
GGVIQGSASEATLVALLAARTKVIHRLQAASPELTQAAIMEKLVAYSSDQAHSSVERAGLIGGVKLKAIP
SDGNFAMRASALQEALERDKAAGLIPFFMVATLGTTTCCSFDNLLEVGPICNKEDIWLHVDAAYAGSAFI
CPEFRHLLNGVEFADSFNFNPHKWLLVNFDCSAMWSRQPVRMLRLKKTCLVSAVVRRS

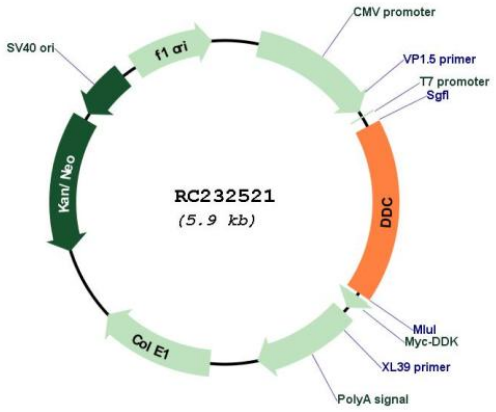
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001242890

ORF Size: 1014 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_001242890.1, NP_001229819.1
RefSeq Size:	1405 bp
RefSeq ORF:	1017 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:	37.5 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]