

Recombinant Human Dopa Decarboxylase, His-tagged

Cat. No. DDC-141H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Dopa decarboxylase protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography, 56.4 kDa (503aa).
Species	Human
Source	E.coli
ProteinLength	1-480 aa
Description	Dopa decarboxylase, also known as DDC, is a homodimeric, pyridoxal phosphate dependent enzyme. Dopa decarboxylase is a protein implicated in 2 metabolic pathways, synthesizing 2 important neurotransmitters: dopamine and serotonin which both play key roles in many clinical disorders, including Parkinson's disease. Dopa decarboxylase is found in different areas of the brain and is particularly abundant in basal ganglia.
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH TRSMNASEFR RRGKEMVDYV ANYMEGIEGR QVYPDVEPGY LRPLIPAAAP QEPDTFEDII NDVEKIIMPG VTHWHSPYFF AYFPTASSYP AMLADMLCGA IGCIGFSWAA SPACTELETV MMDWLKGKMLE LPKAFLNEKA GEGGGVIQGS ASEATLVALL AARTKVIHRL QAASPELTQA AIMEKLVAYS SDQAHSSVER AGLIGGVKLG AIPSDGNFAM RASALQEAL RDKAAGLIPF FMVATLGTTT CCSFDNLLEV GPICNKEDIW LHVDAAYAGS AFICPEFRHL LNGVEFADSF NFNPHKWLLV NFDCSAMWVK KRTDLTGAFR

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LDPTYLKHSH QDSGLITDYR HWQIPLGRRF RSLKMWFVFR MYGVKGLQAY
IRKHVQLSHE FESLVRQDPR FEICVEVILG LVCFRLKGSN KVNEALLQRI
NSAKKIHLVP CHLRDKFVLR FAICSRTVES AHVQRAWWEHI KELAADVLRA ERE

Formulation Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 2mM DTT 10% glycerol.

Purity > 95% by SDS - PAGE

Concentration 1 mg/ml (determined by Bradford assay)

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [dopa decarboxylase \[Homo sapiens \]](#)

Synonyms DDC; dopa decarboxylase (aromatic L-amino acid decarboxylase); AADC; L-Dopa decarboxylase; aromatic L-amino acid decarboxylase; EC4.1.1.28; DOPA decarboxylase

Gene ID [1644](#)

mRNA Refseq [NM_000790](#)

Protein Refseq [NP_000781](#)

MIM [107930](#)

UniProt ID [P20711](#)

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Chromosome Location	7p12.2
Pathway	Alkaloid biosynthesis I; Histidine metabolism; Phenylalanine metabolism; Tryptophan metabolism; Tyrosine metabolism; Synaptic Transmission
Function	aromatic-L-amino-acid decarboxylase activity; lyase activity; protein binding; pyridoxal phosphate binding
Ribbon diagram of a domestic pig DOPA decarboxylase dimer. From PDB 1JS3	