

Rabbit Anti-Human Dopa Decarboxylase Monoclonal Antibody

Cat. No. CAB11523RH Lot. No. (See product label)

SPECIFICATION

Product Overview	Rabbit Monoclonal Antibody to Human Dopa Decarboxylase
Species	Human
Source	Rabbit
Antigen Description	Dopa Decarboxylase (DDC), also known as AADC and Aromatic-L-amino acid decarboxylase, is a 54 kDa member of the group II decarboxylase family of proteins. It is a vitamin B6-dependent homodimeric enzyme that catalyzes the decarboxylation of both L-3,4-dihydroxyphenylalanine (L-DOPA) and L-5-hydroxytryptophan to dopamine and serotonin, respectively, which are major mammalian neurotransmitters and hormones belonging to catecholamines and indoleamines. Since L-DOPA is regularly used to treat the symptoms of Parkinsons disease, the catalytic pathway is of particular research interest. Defects of DDC are associated with severe developmental delay, oculogyric crises (OGC), as well as autosomal recessive disorder AADC deficiency, an early onset inborn error in neurotransmitter metabolism which can lead to catecholamine and serotonin deficiency.
Specificity	Human DDC / AADC. No cross-reactivity with human cell lysate (293 cell line) in WB and ELISA.
Immunogen	Recombinant human DDC protein
Isotype	Rabbit IgG

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Clone	A41
Applications	WB; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human DDC in WB. Using a DAB detection system, the detection limit for human DDC is approximately 0.125 ng/lane under non-reducing conditions and reducing conditions. ELISA: This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human DDC. The detection limit for human DDC is approximately 0.00245 ng/well
Preparation	This antibody was obtained from a rabbit immunized with purified, human cell-derived, recombinant human DDC / AADC
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	DDC dopa decarboxylase (aromatic L-amino acid decarboxylase) [Homo sapiens]
Official Symbol	DDC
Synonyms	DDC; dopa decarboxylase (aromatic L-amino acid decarboxylase); aromatic-L-amino-acid decarboxylase; AADC;

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Gene ID	1644
mRNA Refseq	NM_000790
Protein Refseq	NP_000781
MIM	107930
UniProt ID	P20711
Chromosome Location	7p11
Pathway	Amine-derived hormones, organism-specific biosystem; Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved biosystem; Biogenic Amine Synthesis, organism-specific biosystem; Catecholamine biosynthesis, organism-specific biosystem; Catecholamine biosynthesis, tyrosine => dopamine =>
Function	amino acid binding; aromatic-L-amino-acid decarboxylase activity; aromatic-L-amino-acid decarboxylase activity; lyase activity; protein binding; protein domain specific binding; pyridoxal phosphate binding;