

DDC (H-45): sc-99203

BACKGROUND

DOPA decarboxylase (DDC), also designated aromatic-L-amino-acid decarboxylase (AADC) belongs to the group II decarboxylase family of proteins. DDC, which can form a homodimer, is an important protein in the catecholamine biosynthesis pathway. DDC acts as a catalyst in the decarboxylation of L-5-hydroxytryptophan to Serotonin, L-3,4-dihydroxyphenylalanine (DOPA) to dopamine and L-tryptophan to tryptamine. Defects in the gene encoding for DDC may cause the autosomal recessive disorder AADC deficiency. AADC deficiency is an early onset inborn error in neurotransmitter metabolism which can lead to catecholamine and Serotonin deficiency. This causes poor feeding, psychomotor and developmental delays, lethargy, ptosis, gastrointestinal disturbances and hypothermia.

REFERENCES

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3. Craig, S.P., Thai, A.L., Weber, M. and Craig, I.W. 1992. Localization of the gene for human aromatic L-amino acid decarboxylase (DDC) to chromosome 7p13 → p11 by *in situ* hybridisation. *Cytogenet. Cell Genet.* 61: 114-116.
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CHROMOSOMAL LOCATION

Genetic locus: DDC (human) mapping to 7p12.2; Ddc (mouse) mapping to 11 A1.

SOURCE

DDC (H-45) is a rabbit polyclonal antibody raised against amino acids 66-110 mapping near the N-terminus of DDC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DDC (H-45) is recommended for detection of DDC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DDC (H-45) is also recommended for detection of DDC in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DDC siRNA (h): sc-60515, DDC siRNA (m): sc-60516, DDC shRNA Plasmid (h): sc-60515-SH, DDC shRNA Plasmid (m): sc-60516-SH, DDC shRNA (h) Lentiviral Particles: sc-60515-V and DDC shRNA (m) Lentiviral Particles: sc-60516-V.

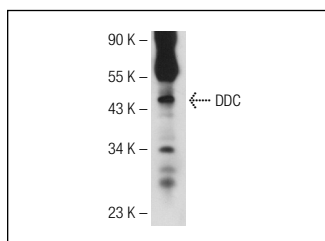
Molecular Weight of DDC: 50 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DDC (H-45): sc-99203. Western blot analysis of DDC expression in PC-12 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **DDC (8E8): sc-293287**, our highly recommended monoclonal alternative to DDC (H-45).