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DDC Antibody
Catalog # ASC11687

Specification

DDC Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	P20711
Other Accession	NP_000781, 4503281
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 53 kDa** **Observed: 50 kDa KDa**
Application Notes	**DDC antibody can be used for detection of DDC by Western blot at 1 - 2 µg/ml.**

DDC Antibody - Additional Information

Gene ID **1644**

Target/Specificity
DDC; DDC antibody is human, mouse and rat reactive.

Reconstitution & Storage
DDC antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
DDC Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DDC Antibody - Protein Information

Name DDC {ECO:0000303|PubMed:15532536, ECO:0000312|HGNC:HGNC:2719}

Function
Catalyzes the decarboxylation of L-3,4-dihydroxyphenylalanine (DOPA) to dopamine and L-5-hydroxytryptophan to serotonin.

Tissue Location
[Isoform 2]: High expression in kidney.

DDC Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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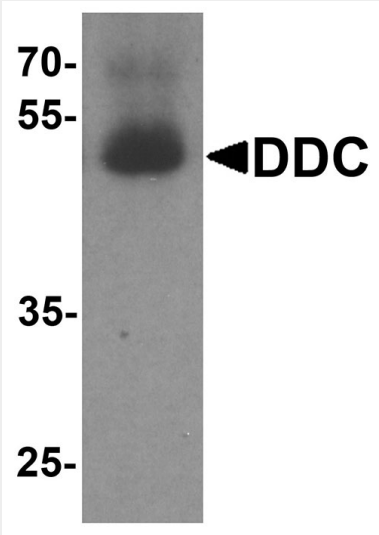
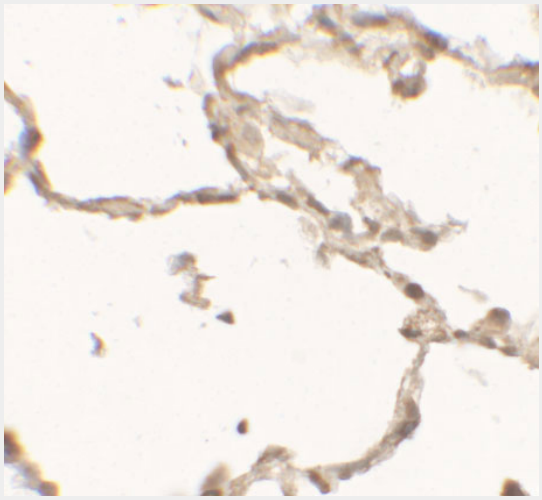
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DDC Antibody - Images



Western blot analysis of DDC in human lung tissue lysate with DDC antibody at 1 µg/ml.



Immunohistochemistry of DDC in human lung tissue with DDC antibody at 2.5 µg/mL.

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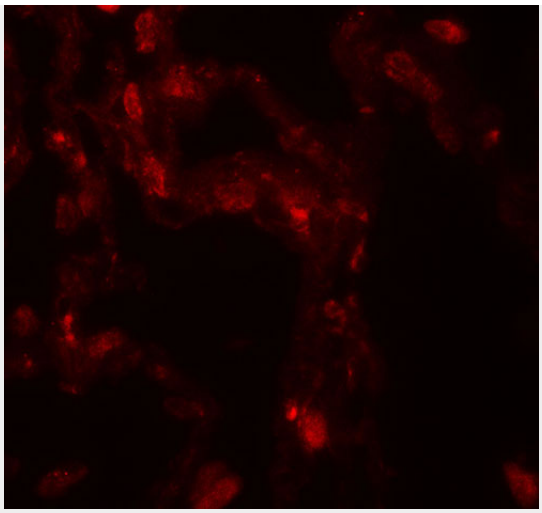

Immunofluorescence of DDC in human lung tissue with DDC antibody at 20 µg/mL.

DDC Antibody - Background

DOPA decarboxylase (DDC) belongs to the group II decarboxylase family of proteins (1). It is an important protein in the catecholamine biosynthesis pathway. DDC catalyzes the second reaction in the biosynthesis of catecholamines, trace amines and serotonin (1,2). It can form a homodimer and is expressed in the central nervous system (2). DDC can be used as markers for dopaminergic, noradrenergic and serotonergic neurons in a variety of applications including depression, schizophrenia, Parkinson's disease, neuroendocrine tumors and drug abuse (3,4). Defects in DDC gene may cause the autosomal recessive disorder AADC deficiency (4).

DDC Antibody - References

Berry MD, Juorio AV, Li XM, et al. Aromatic L-amino acid decarboxylase: a neglected and misunderstood enzyme. Neurochem. Res. 1996; 21:1075-87.
Sumi-Ichinose C, Ichinose H, Takahashi E, et al. Molecular cloning of genomic DNA and chromosomal assignment of the gene for human aromatic L-amino acid decarboxylase, the enzyme for catecholamine and Serotonin biosynthesis. Biochemistry 1992; 31:2229-38.
Haycock JW, Becker L, Ang L, et al. Marked disparity between age-related changes in dopamine and other presynaptic dopaminergic markers in human striatum. J. Neurochem. 2003; 87:574-85.
Chang YT, Sharma R, Marsh JL, et al. Levodopa-responsive aromatic L-amino acid decarboxylase deficiency. Ann. Neurol. 2004; 55:435-8.