

For Research Use Only

DOPA decarboxylase/DDC Polyclonal antibody

Catalog Number: 10166-1-AP

10 Publications



Basic Information

Catalog Number:

10166-1-AP

Concentration:

450 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0219

GenBank Accession Number:

BC008366

GeneID (NCBI):

1644

UNIPROT ID:

P20711

Full Name:

dopa decarboxylase (aromatic L-amino acid decarboxylase)

Calculated MW:

54 kDa

Observed MW:

48-50 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:3000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:500-1:2000

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Positive Controls:

WB : SH-SY5Y cells, mouse kidney tissue, mouse brain tissue, rat kidney tissue, PC-12 cells

IP : mouse brain tissue,

IHC : mouse kidney tissue, human liver cancer tissue, rat kidney tissue, rat small intestine tissue

IF/ICC : SH-SY5Y cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

DOPA decarboxylase (DDC), also known as aromatic L-amino acid decarboxylase, belongs to the pyridoxal-dependent aminotransferase superfamily. DDC is an enzyme that converts levodopa into dopamine¹⁴, the latter being severely depleted in LBD due to the loss of dopaminergic neurons in the substantia nigra (PMID: 3374198, PMID: 28100251). DDC catalyzes the decarboxylation of L-3,4-dihydroxyphenylalanine (DOPA) to dopamine, L-5-hydroxytryptophan to serotonin and L-tryptophan to tryptamine. DDC is the cause of aromatic L-amino-acid decarboxylase deficiency (AADCD). Researches showed that Ddc is only one of the enzymes in the biosynthetic pathways for bioamines and catecholamines.

Notable Publications

Author	Pubmed ID	Journal	Application
Mette Q Ludwig	33767443	Nat Metab	IHC
Ming Ming	19558709	J Transl Med	WB
Hao Qian	32581380	Nature	IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

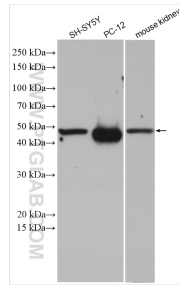
T: 4006900926

E: Proteintech-CN@ptglab.com

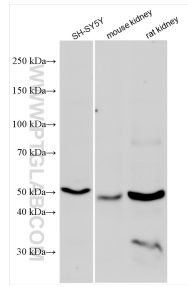
W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

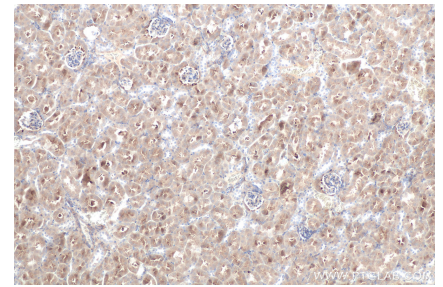
Selected Validation Data



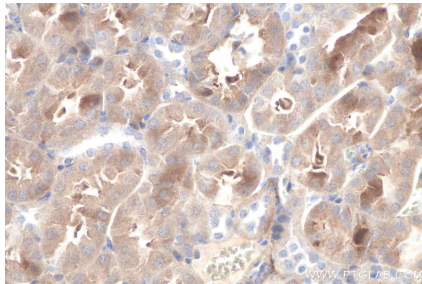
Various lysates were subjected to SDS PAGE followed by western blot with 10166-1-AP (DOPA decarboxylase/DDC antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



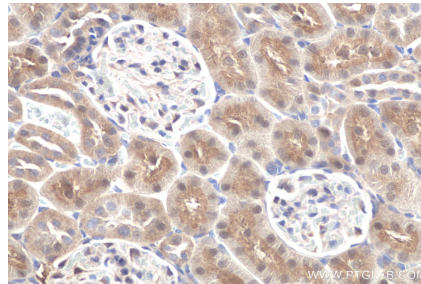
Various lysates were subjected to SDS PAGE followed by western blot with 10166-1-AP (DOPA decarboxylase/DDC antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



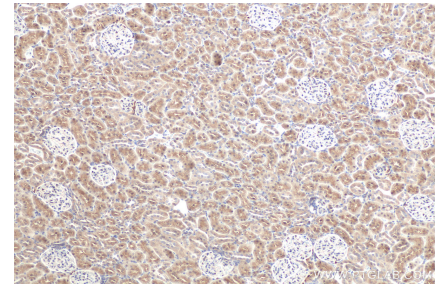
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 10166-1-AP (DOPA decarboxylase antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



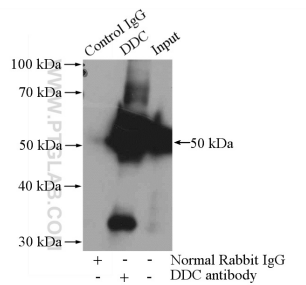
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 10166-1-AP (DOPA decarboxylase antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



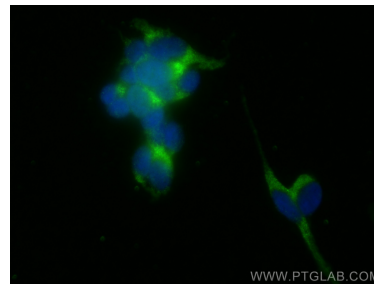
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 10166-1-AP (DOPA decarboxylase/DDC antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 10166-1-AP (DOPA decarboxylase/DDC antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-DOPA decarboxylase/DDC (IP:10166-1-AP, 4ug; Detection:10166-1-AP 1:800) with mouse brain tissue lysate 4000ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using DOPA decarboxylase antibody (10166-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).