SunLong Biotech Co.,LTD
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Rabbit Anti-DOPA Decarboxylase antibody

SL0180R

Product Name	DOPA Decarboxylase
Chinese Name	多巴胺脱羧酶抗体
Alias	AADC; DDC; Aromatic L Amino Acid Decarboxylase; DDC protein; DOPA decarboxylase; aromatic-L-amino-acid decarboxylase isoform 1; DDC_HUMAN.
Research Area	Neurobiology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat,
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	53kDa
Cellular localization	cytoplasmic Extracellular matrix
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human DDC: 201-300/480
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	DOPA decarboxylase is an enzyme 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. Following the hydroxylation of tyrosine to form L dihydroxyphenylalanine (LDOPA), catalyzed by tyrosine hydroxylase, DDC decarboxylates LDOPA to form dopamine. This neurotransmitter is found in different areas of the brain and is particularly abundant in basal ganglia. Dopamine is also produced by DDC in the sympathetic nervous system and is the precursor of the catecholaminergic hormones, noradrenaline and adrenaline in the adrenal medulla. In the nervous system, tryptophan hydroxylase produces 5 OH tryptophan, which is decarboxylated by DDC, giving rise to serotonin. DDC is a homodimeric, pyridoxal phosphate dependent enzyme.

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

Subunit:
Homodimer.

DISEASE:
Defects in DDC are the cause of aromatic L-amino-acid decarboxylase deficiency (AADCD) [MIM:608643]. AADCD deficiency is an inborn error in neurotransmitter metabolism that leads to combined serotonin and catecholamine deficiency. It causes developmental and psychomotor delay, poor feeding, lethargy, ptosis, intermittent hypothermia, gastrointestinal disturbances. The onset is early in infancy and inheritance is autosomal recessive.

Similarity:
Belongs to the group II decarboxylase family.

SWISS:
P20711

Gene ID:
1644

Database links:

Entrez Gene: 1644 Human

Entrez Gene: 13195 Mouse

Entrez Gene: 24311 Rat

Omim: 107930 Human

SwissProt: P20711 Human

SwissProt: O88533 Mouse

SwissProt: P14173 Rat

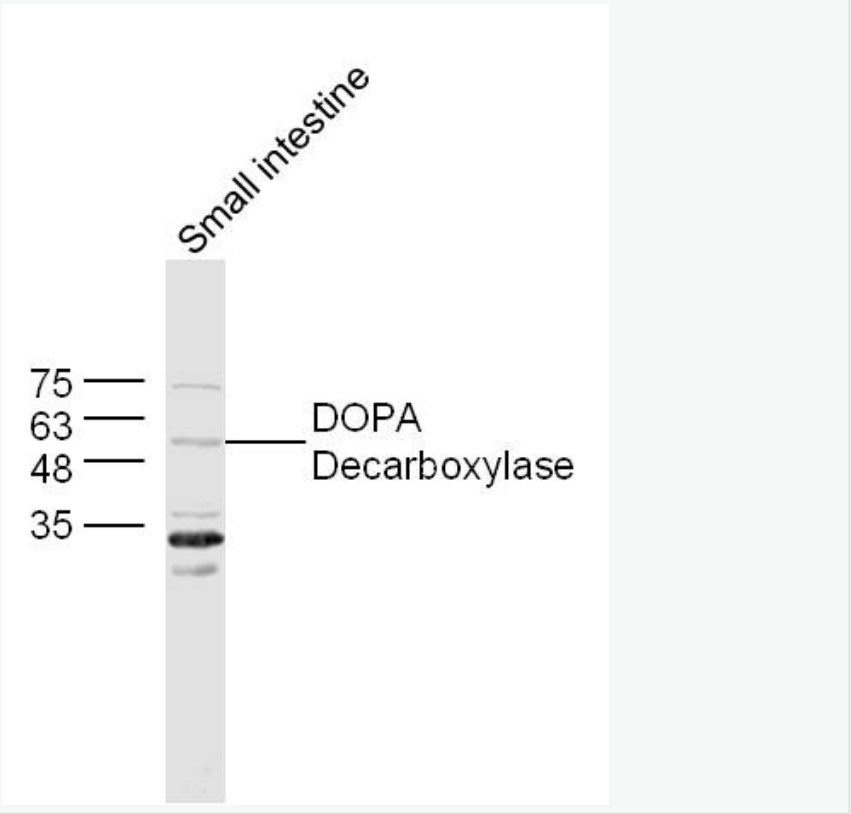
Unigene: 359698 Human

Unigene: 12906 Mouse

Unigene: 11064 Rat

该抗体主要用于：神经细胞退行性改变-老年滞呆的研究

Product Picture



Sample:

Small intestine (Mouse) Lysate at 40 ug

Primary: Anti-DOPA Decarboxylase (SL 0180R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 53 kD

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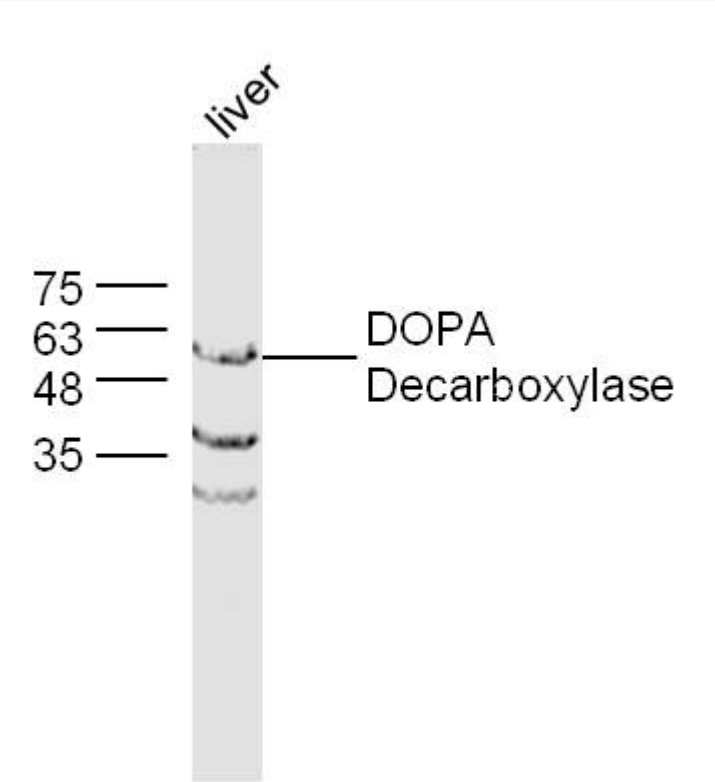
Observed band size: 53 kD



Sample:

Liver (Mouse) Lysate at 40 ug

Primary: Anti-DOPA Decarboxylase (Bs- 0180R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 53 kD

Observed band size: 53 kD

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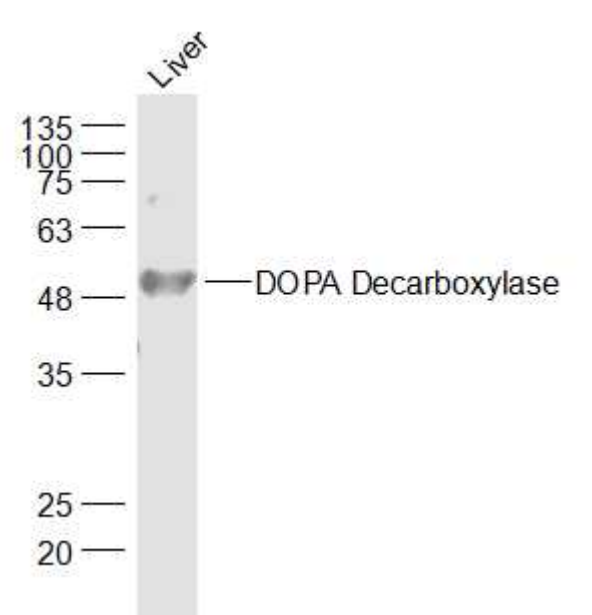

Sample:

Liver (Mouse) Lysate at 40 ug

Primary: Anti-DOPA Decarboxylase (SL0180R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 53 kD

Observed band size: 53 kD

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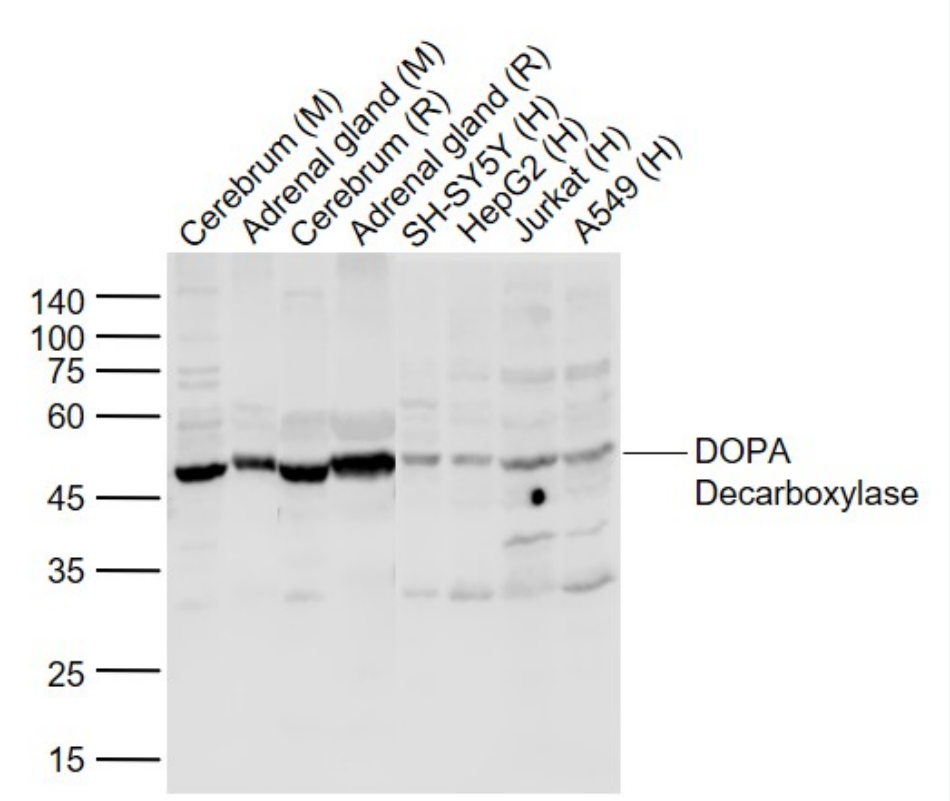

Sample:

Lane 1: Cerebrum (Mouse) Tissue Lysate at 40 ug

Lane 2: adrenal gland (Mouse) TissueLysate at 40 ug

Lane 3: Cerebrum (Rat) Tissue Lysate at 40 ug

Lane 4: adrenal gland (Rat) Tissue Lysate at 40 ug

Lane 5: SH-SY5Y (Human) Cell Lysate at 30 ug

Lane 6: HepG2 (Human) Cell Lysate at 30 ug

Lane 7: Jurkat (Human) Cell Lysate at 30 ug

Lane 8: A549 (Human) Cell Lysate at 30 ug

Primary: Anti-DOPA Decarboxylase (SL0180R) at 1/1000 dilution

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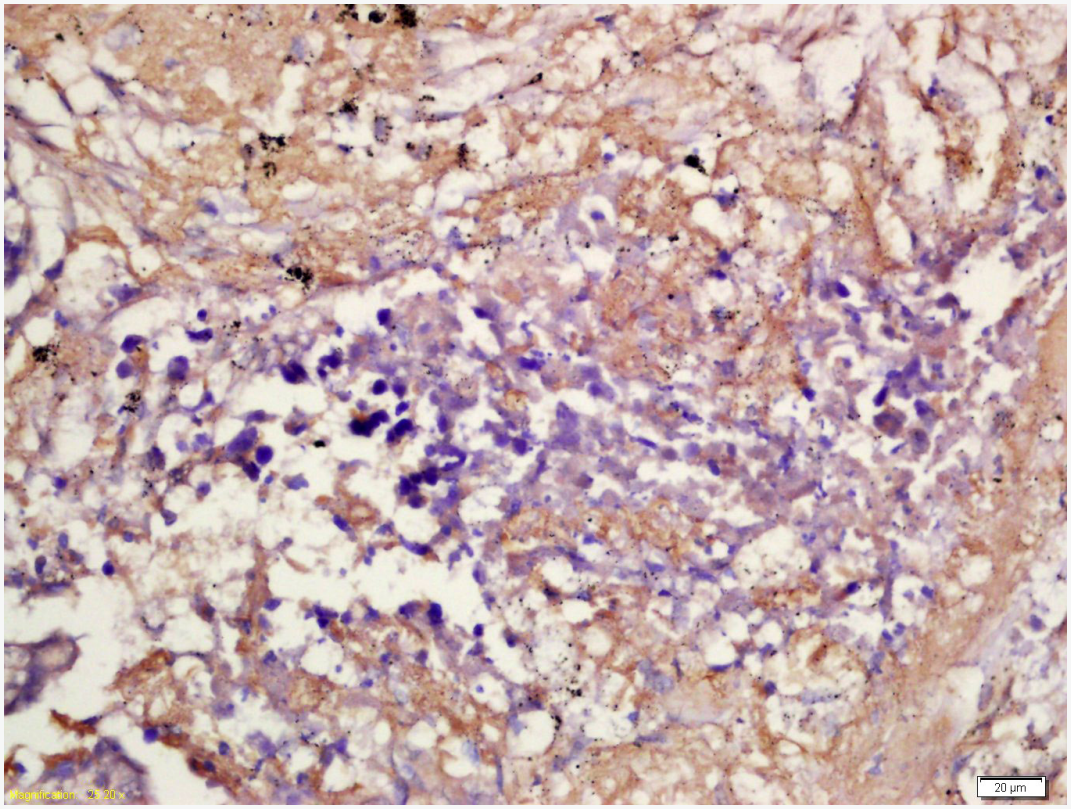
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 53 kD

Observed band size: 50 kD

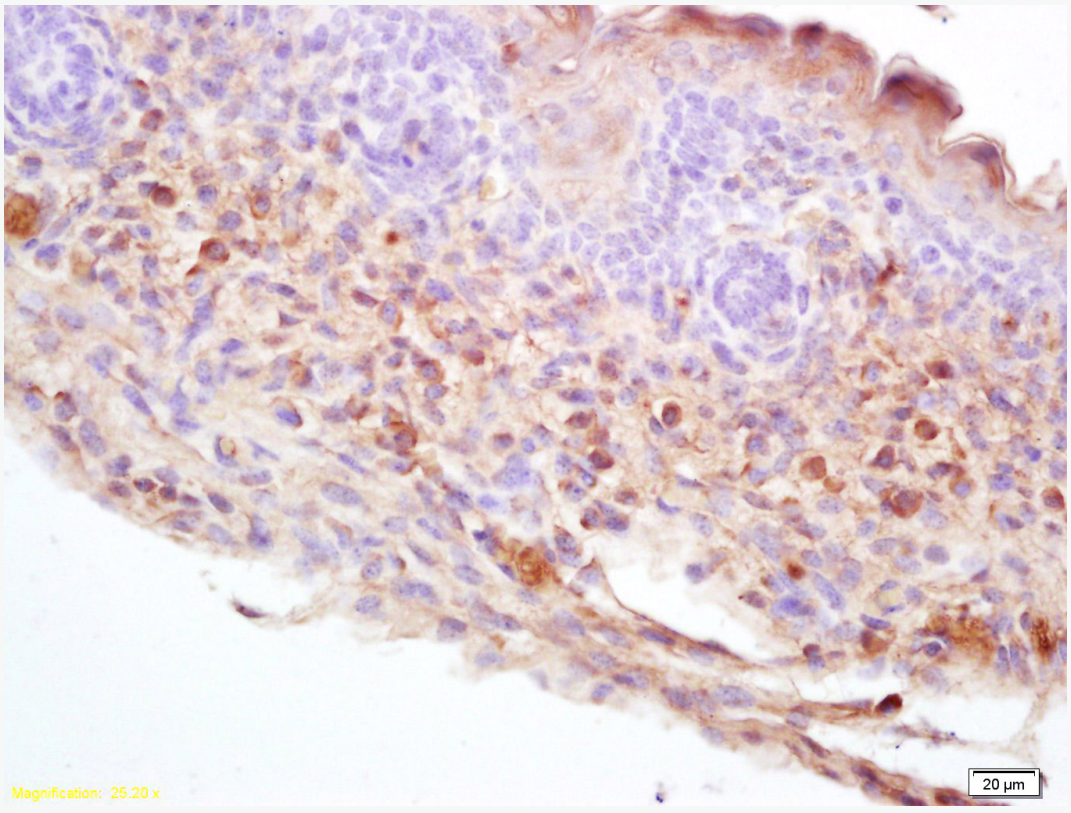


Tissue/cell: human lung cancer tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-DOPA Decarboxylase Polyclonal Antibody,

Unconjugated(SL0180R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

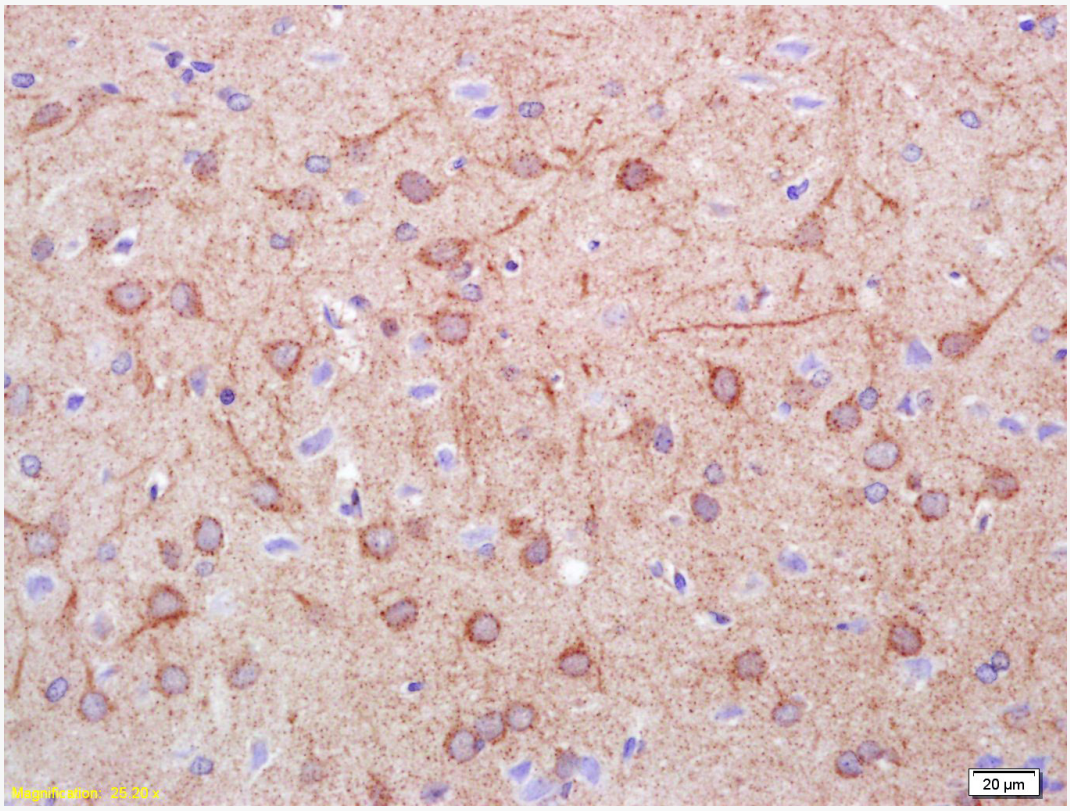


Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-DDC/DOPA Decarboxylase Polyclonal Antibody, Unconjugated(SL0180R) 1:200, overnight at 4°C, followed by conjugation to the

secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-DDC/DOPA Decarboxylase Polyclonal Antibody, Unconjugated(SL0180R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining