Anti-DOPA Decarboxylase Antibody [JA53-16]

ET1704-94

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	JA53-16

Description: 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.

Immunogen: Synthetic peptide within Human DOPA Decarboxylase aa 27-76 / 480.

Positive control: Human kidney tissue, human liver tissue, mouse liver tissue lysates, HepG2 cell lysates.

Subcellular location: Cytoplasm.

Database links: SwissProt: P20711 Human | O88533 Mouse | P14173 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:50-1:400

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

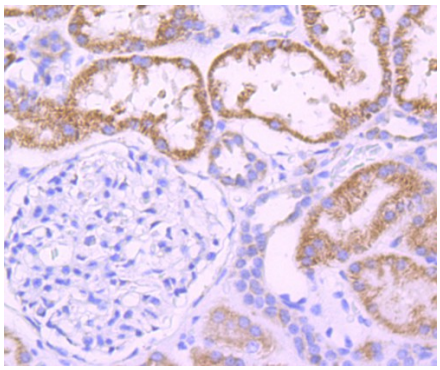

Fig1: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-DOPA Decarboxylase antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1704-94, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

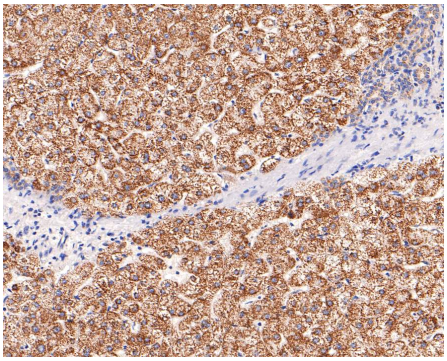

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-DOPA Decarboxylase antibody (ET1704-94) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1704-94) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

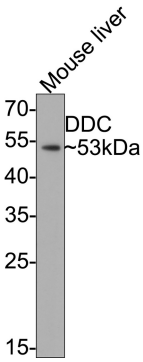

Fig3: Western blot analysis of DOPA Decarboxylase on mouse liver tissue lysates with Rabbit anti-DOPA Decarboxylase antibody (ET1704-94) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 53 kDa
Observed band size: 53 kDa

Exposure time: 2 minutes;

10% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1704-94) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

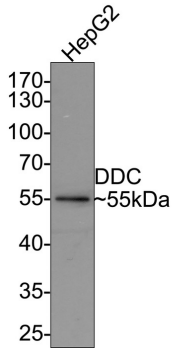

Fig4: Western blot analysis of DOPA Decarboxylase on HepG2 cell lysates with Rabbit anti-DOPA Decarboxylase antibody (ET1704-94) at 1/500 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 53 kDa
Observed band size: 55 kDa

Exposure time: 2 minutes;

10% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1704-94) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Background References

1. Wienecke J et al. Spinal cord injury enables aromatic L-amino acid decarboxylase cells to synthesize monoamines. J Neurosci 34:11984-2000 (2014).
2. Panayotis N et al. Morphological and functional alterations in the substantia nigra pars compacta of the Mecp2-null mouse. Neurobiol Dis 41:385-97 (2011).