

Anti-Tyrosine Hydroxylase Antibody

Rabbit polyclonal antibody to Tyrosine Hydroxylase

Catalog # AP60061

Product Information

Application	WB, IF/IC, IHC
Primary Accession	P07101
Other Accession	P24529
Reactivity	Human, Mouse, Rat, Chicken, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58600

Additional Information

Gene ID	7054
Other Names	TYH; Tyrosine 3-monooxygenase; Tyrosine 3-hydroxylase; TH
Target/Specificity	Recognizes endogenous levels of Tyrosine Hydroxylase protein.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	TH (HGNC:11782)
Synonyms	TYH
Function	<p>Catalyzes the conversion of L-tyrosine to L- dihydroxyphenylalanine (L-Dopa), the rate-limiting step in the biosynthesis of catecholamines, dopamine, noradrenaline, and adrenaline. Uses tetrahydrobiopterin and molecular oxygen to convert tyrosine to L-Dopa (PubMed:15287903, PubMed:1680128, PubMed:17391063, PubMed:24753243, PubMed:34922205, PubMed:8528210, Ref.18). In addition to tyrosine, is able to catalyze the hydroxylation of phenylalanine and tryptophan with lower specificity (By similarity). Positively regulates the regression of retinal hyaloid vessels during postnatal development (By similarity).</p> <p>Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:P24529}. Nucleus</p>

Cellular Location

{ECO:0000250|UniProtKB:P04177} Cell projection, axon
{ECO:0000250|UniProtKB:P24529}. Cytoplasm
{ECO:0000250|UniProtKB:P04177}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250|UniProtKB:P04177}. Note=When phosphorylated at Ser-19 shows a nuclear distribution and when phosphorylated at Ser-31 as well at Ser-40 shows a cytosolic distribution (By similarity). Expressed in dopaminergic axons and axon terminals.
{ECO:0000250|UniProtKB:P04177}

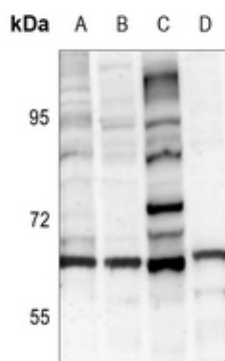
Tissue Location

Mainly expressed in the brain and adrenal glands.

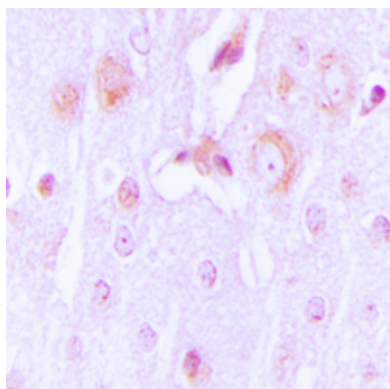
Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Tyrosine Hydroxylase. The exact sequence is proprietary.

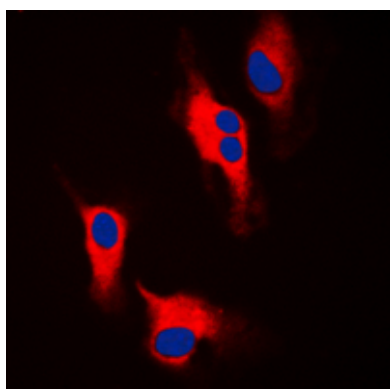
Images



Western blot analysis of Tyrosine Hydroxylase expression in HEK293T (A), Hela (B), SP20 (C), PC12 (D) whole cell lysates.



Immunohistochemical analysis of Tyrosine Hydroxylase staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Tyrosine Hydroxylase staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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