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Tyrosine Hydroxylase Antibody

Rabbit mAb
Catalog # AP90732

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	P07101
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	EC 1.14.16.2; TH isoform 3; TH isoform a; TH-4; TY3H; TYH; Tyrosine 3-hydroxylase; Tyrosine 3-monooxygenase; tyrosine hydroxylase;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	58600

Additional Information

Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Tyrosine Hydroxylase
Description	Tyrosine hydroxylase (TH) catalyzes the rate-limiting step in the synthesis of the neurotransmitter dopamine and other catecholamines. TH functions as a tetramer, with each subunit composed of a regulatory and catalytic domain, and exists in several different isoforms. This enzyme is required for embryonic development since TH knockout mice die before or at birth.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

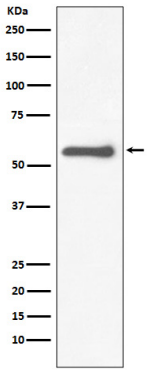
Protein Information

Name	TH (HGNC:11782)
Synonyms	TYH
Function	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).
Cellular Location	Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P24529}. Nucleus

{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.

Images



Western blot analysis of Tyrosine Hydroxylase expression in PC12 cell lysate.

Image not found : 202311/AP90732-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human brain, using Tyrosine Hydroxylase Antibody.

Image not found : 202311/AP90732-IF.jpg

Immunofluorescent analysis of PC-12 cells, using Tyrosine Hydroxylase Antibody.

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