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Tyrosine Hydroxylase Antibody
Rabbit mAb
Catalog # AP90732

Specification

Tyrosine Hydroxylase Antibody - Product Information

Application	**WB, IHC, FC, ICC**
Primary Accession	P07101
Reactivity	**Rat**
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 Da**

Tyrosine Hydroxylase Antibody - Additional Information

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.**

Tyrosine Hydroxylase Antibody - 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 cathecolamines, dopamine, noradrenaline, and adrenaline. Uses tetrahydrobiopterin and molecular oxygen to convert tyrosine to L-Dopa (PubMed:<a

href="http://www.uniprot.org/citations/15287903" target="_blank">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}

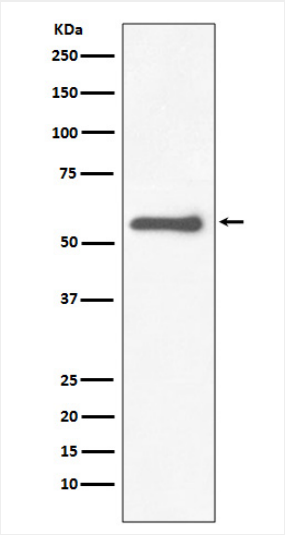
Tissue Location
Mainly expressed in the brain and adrenal glands.

Tyrosine Hydroxylase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Tyrosine Hydroxylase Antibody - Images



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