

Anti-Tyrosine Hydroxylase Antibody (Monoclonal, TH-16)

Catalog # ABO10484

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	P04177
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Rat
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for Tyrosine Hydroxylase, tyrosine hydroxylase (TH) detection. Tested with WB, IHC-P, IHC-F in Human;rat;rabbit. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Gene ID	25085
Other Names	Tyrosine 3-monooxygenase, 1.14.16.2, Tyrosine 3-hydroxylase, TH, Th
Calculated MW	55966
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, rat, rabbit, By Heat Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml, Human, rat, rabbit, - Western blot, 0.25-0.5 μ g/ml, Human, rat, rabbit
Tissue Specificity	TH: Mainly expressed in the brain and adrenalglands.
Source	Eukaryota
Protein Name	Tyrosine 3-monooxygenase
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
Clone Names	TH-16
Immunogen	Rat tyrosine hydroxylase(TH).
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the bipterin-dependent aromatic amino acid hydroxylase family.

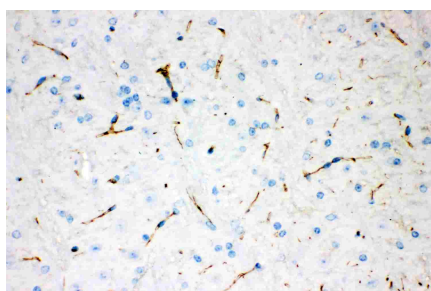
Protein Information

Name	Th
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 (By similarity). In addition to tyrosine, is able to catalyze the hydroxylation of phenylalanine and tryptophan but with lower specificity (PubMed: 10933781 , PubMed: 11922614). Positively regulates the regression of retinal hyaloid vessels during postnatal development (By similarity).
Cellular Location	Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:P24529}. Nucleus. Cell projection, axon {ECO:0000250 UniProtKB:P24529}. Cytoplasm. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle. Note=When phosphorylated at Ser-19 shows a nuclear distribution and when phosphorylated at Ser-31 as well as at Ser-40 shows a cytosolic distribution (PubMed:21392500, PubMed:32778969). Expressed in dopaminergic axons and axon terminals (By similarity). {ECO:0000250 UniProtKB:P07101, ECO:0000269 PubMed:21392500}

Background

Tyrosine hydroxylase is involved in the conversion of phenylalanine to dopamine. As the rate-limiting enzyme in the synthesis of catecholamines, tyrosine hydroxylase has a key role in the physiology of adrenergic neurons. Human TH gene contains 13 primary exons and spans approximately 8 kb. TH is in the 11p15.5 region.

Images



Anti- Tyrosine Hydroxylase antibody, ABO10484,
IHC(P)IHC(P): Rat Brain Tissue

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