

**TH / Tyrosine Hydroxylase Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS12518****Specification**

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**TH / Tyrosine Hydroxylase Antibody - Product Information**

Application	<b>IHC, WB</b>
Primary Accession	<a href="#">P07101</a>
Reactivity	<b>Human, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>59kDa KDa</b>

**TH / Tyrosine Hydroxylase Antibody - Additional Information****Gene ID** 7054**Other Names**

Tyrosine 3-monooxygenase, 1.14.16.2, Tyrosine 3-hydroxylase, TH, TH, TYH

**Target/Specificity**

Specific for the ~60k tyrosine hydroxylase protein

**Reconstitution & Storage**

Store at 4°C for short term applications. For long term storage, aliquot and store at -20°C.

**Precautions**

TH / Tyrosine Hydroxylase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TH / 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 catecholamines, 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</a>, PubMed:<a href="http://www.uniprot.org/citations/1680128" target="\_blank">1680128</a>, PubMed:<a href="http://www.uniprot.org/citations/17391063" target="\_blank">17391063</a>, PubMed:<a href="http://www.uniprot.org/citations/24753243" target="\_blank">24753243</a>, PubMed:<a href="http://www.uniprot.org/citations/34922205" target="\_blank">34922205</a>, PubMed:<a href="http://www.uniprot.org/citations/8528210" target="\_blank">8528210</a>, 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

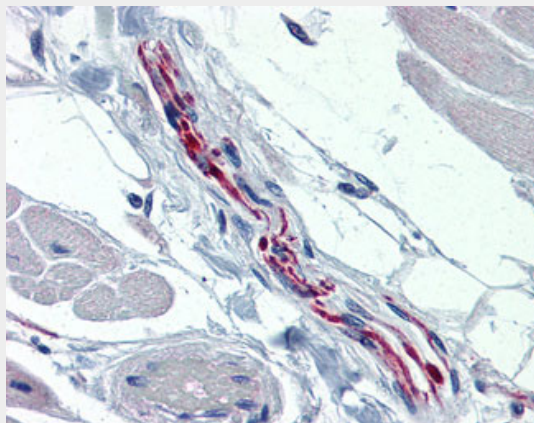
Mainly expressed in the brain and adrenal glands.

### TH / Tyrosine Hydroxylase Antibody - Protocols

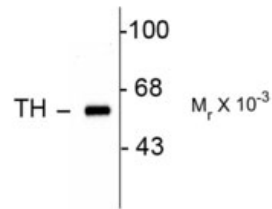
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### TH / Tyrosine Hydroxylase Antibody - Images



Anti-TH / Tyrosine Hydroxylase antibody IHC of human heart, nerve.



Western blot of rat caudate lysate should specific immunolabeling of the ~60k Tyrosine...

### **TH / Tyrosine Hydroxylase Antibody - Background**

Plays an important role in the physiology of adrenergic neurons.

### **TH / Tyrosine Hydroxylase Antibody - References**

- Kaneda N., et al. *Biochem. Biophys. Res. Commun.* 146:971-975(1987).
- Grima B., et al. *Nature* 326:707-711(1987).
- Kobayashi K., et al. *Nucleic Acids Res.* 15:6733-6733(1987).
- Kobayashi K., et al. *J. Biochem.* 103:907-912(1988).
- Roma J., et al. *Biol. Chem.* 388:419-426(2007).