

**TH / Tyrosine Hydroxylase Antibody (phospho-Ser40)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS12276****Specification****TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - Product Information**

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

**TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - 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 phosphorylated at Ser40. Some higher molecular weight bands may be detected by the antibody depending upon the brain region being studied, protein loads and the detection methods used. The antibody h ...

**Reconstitution & Storage**

Long term: -80°C; Short term: -20°C

**Precautions**

TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) is for research use only and not for use in diagnostic or therapeutic procedures.

**TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - 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

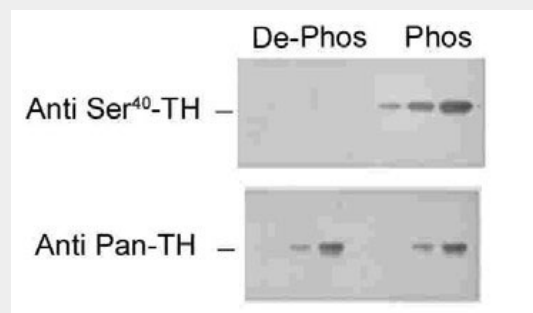
Mainly expressed in the brain and adrenal glands.

### TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - Protocols

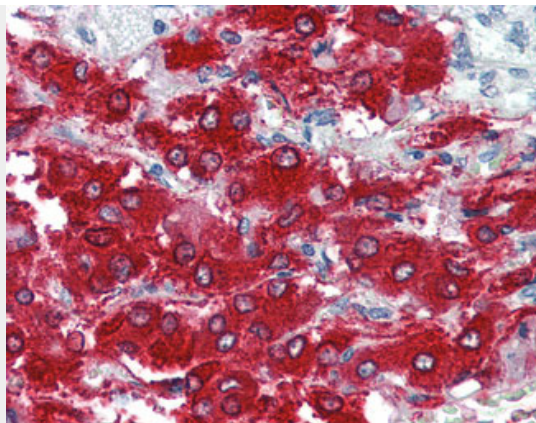
Provided below are standard protocols that you may find useful for product applications.

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

### TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - Images



Western blot of recombinant phospho- and dephospho-TH showing selective immunolabeling by the...



Anti-TH / Tyrosine Hydroxylase antibody IHC of human adrenal.

### **TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - Background**

Plays an important role in the physiology of adrenergic neurons.

### **TH / Tyrosine Hydroxylase Antibody (phospho-Ser40) - 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).