

**TH Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP6945b****Specification**

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**TH Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P07101](#)**TH Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 7054**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6945b](/products/AP6945b) was selected from the C-term region of human TH. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**TH Antibody (C-term) Blocking Peptide - 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:[17391063](http://www.uniprot.org/citations/17391063), PubMed:[1680128](http://www.uniprot.org/citations/1680128), PubMed:[15287903](http://www.uniprot.org/citations/15287903), PubMed:[8528210](http://www.uniprot.org/citations/8528210), Ref.18, PubMed:[34922205](http://www.uniprot.org/citations/34922205), PubMed:[24753243](http://www.uniprot.org/citations/24753243)). 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 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**TH Antibody (C-term) Blocking Peptide - Images****TH Antibody (C-term) Blocking Peptide - Background**

TH is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the synthesis of catecholamines, hence plays a key role in the physiology of adrenergic neurons.

**TH Antibody (C-term) Blocking Peptide - References**

Kuhn,D.M., et.al., J. Biol. Chem. 277 (16), 14336-14342 (2002)