

TH Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6945b**Specification**

TH Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P07101
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	58600
Antigen Region	486-514

TH Antibody (C-term) - Additional Information**Gene ID** 7054**Other Names**

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

Target/Specificity

This TH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 486-514 amino acids from the C-terminal region of human TH.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TH Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TH Antibody (C-term) - 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](#), PubMed:[1680128](#), PubMed:[15287903](#), PubMed:[8528210](#), Ref.18, PubMed:[34922205](#), PubMed:[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

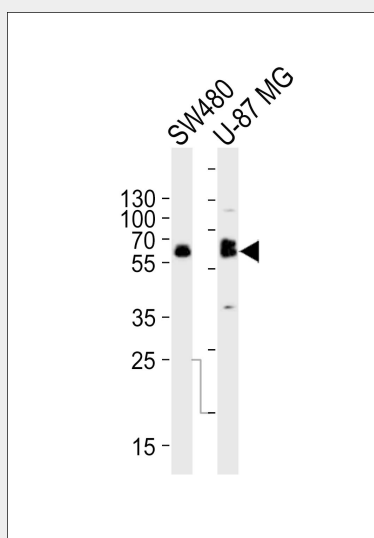
Mainly expressed in the brain and adrenal glands.

TH Antibody (C-term) - Protocols

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

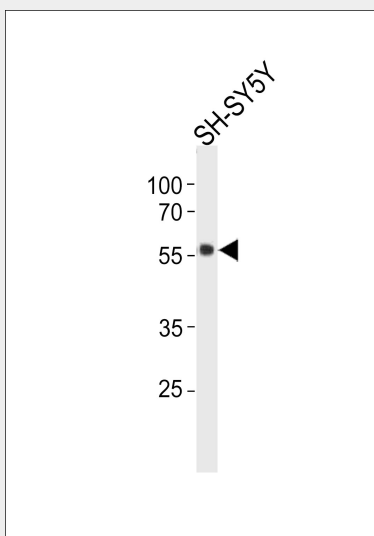
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TH Antibody (C-term) - Images

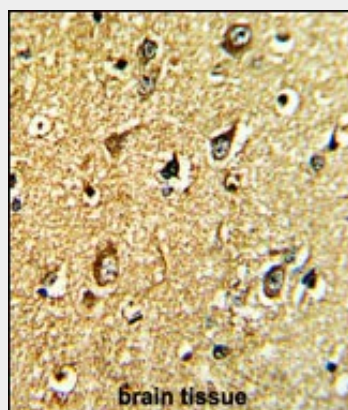


Western blot analysis of lysates from SW480, U-87 MG cell line (from left to right), using TH Antibody (C-term)(Cat. #AP6945b). AP6945b was diluted at 1:1000 at each lane. A goat

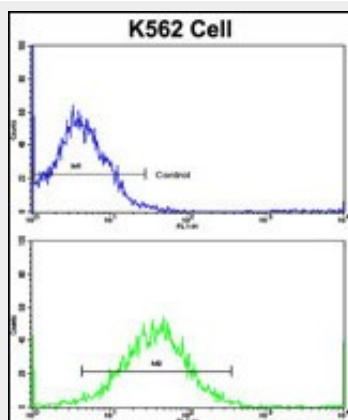
anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



TH Antibody (C-term) (Cat. #AP6945b) western blot analysis in SH-SY5Y cell line lysates (35ug/lane). This demonstrates the TH antibody detected the TH protein (arrow).



Formalin-fixed and paraffin-embedded human brain tissue with TH Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of K562 cells using TH Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies

were used for the analysis.

TH Antibody (C-term) - 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) - References

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