

Phospho-Tyrosine Hydroxylase Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10492**Specification**

Phospho-Tyrosine Hydroxylase Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	P07101
Other Accession	AAI04968
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	58600

Phospho-Tyrosine Hydroxylase Antibody - Additional Information**Gene ID** 7054

Application & Usage	Western blotting (1:200-1000) and immunofluorescence (1:50-100). However, the optimal conditions should be determined individually. Other applications have not been determined. The antibody detects a ~60 kDa Tyrosine Hydroxylase when phosphorylated at Ser40.
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Other Names

Tyrosin Hydroxylase

Target/Specificity

Phospho-Tyrosin Hydroxylase

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl antigen affinity purified rabbit anti-phospho-Tyrosine Hydroxylase polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA, 0.02% Thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

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

Phospho-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: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.

Phospho-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](#)

Phospho-Tyrosine Hydroxylase Antibody - Images**Phospho-Tyrosine Hydroxylase Antibody - Background**

Tyrosine hydroxylase play an important role in the synthesis of dopamine and other

catecholamines. The enzyme's activity is regulated in the level of transcription and translation, as well as posttranscriptional modifications. Phosphorylation at Ser40 may play a key role in regulation of the catalytic activity of the enzyme.