10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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	P07101
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 cathecolamines, dopamine, noradrenaline, and adrenaline. Uses tetrahydrobiopterin and molecular oxygen to convert tyrosine to L-Dopa (PubMed:15287903, PubMed:1680128, PubMed:17391063, PubMed:24753243, PubMed:34922205, PubMed:8528210, 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}

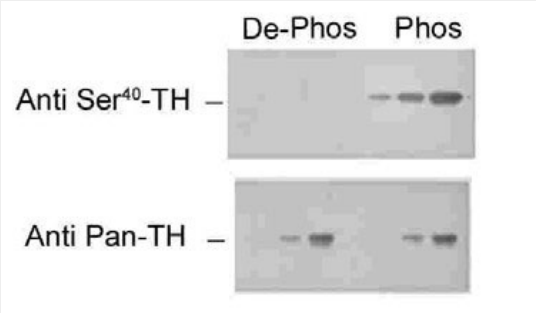
Tissue Location
Mainly expressed in the brain and adrenal glands.

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

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

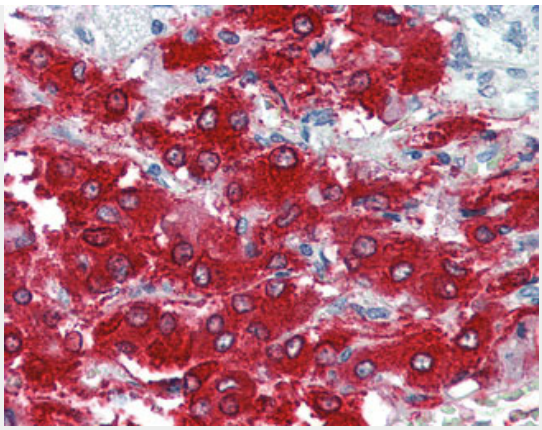
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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



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

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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).