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Goat Anti-Tyrosine Hydroxylase Antibody
Peptide-affinity purified goat antibody
Catalog # AF2127a

Specification

Goat Anti-Tyrosine Hydroxylase Antibody - Product Information

Application	**WB**
Primary Accession	P07101
Other Accession	NP_954987, 7054
Reactivity	**Human**
Predicted	**Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**58600**

Goat Anti-Tyrosine Hydroxylase Antibody - Additional Information

Gene ID 7054

Other Names
Tyrosine 3-monooxygenase, 1.14.16.2, Tyrosine 3-hydroxylase, TH, TH, TYH

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

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

Goat Anti-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:15287903, PubMed:<a

href="http://www.uniprot.org/citations/1680128" target="_blank">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.

Goat Anti-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 Cytomety
- Cell Culture

Goat Anti-Tyrosine Hydroxylase Antibody - Images

AF2127a (2 µg/ml) staining of Human Cerebral Cortex lysate (35 µg protein in RIPA buffer).

Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Tyrosine Hydroxylase Antibody - Background

The protein encoded by this gene 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. Mutations in this gene have been associated with autosomal recessive Segawa syndrome. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.

Goat Anti-Tyrosine Hydroxylase Antibody - References

[Genetic polymorphism in tyrosine hydroxylase gene and essential hypertension in Hunan Han population.] Chen L, et al. Zhong Nan Da Xue Xue Bao Yi Xue Ban, 2010 Aug. PMID 20818075.
A rare novel deletion of the tyrosine hydroxylase gene in Parkinson disease. Bademci G, et al. Hum Mutat, 2010 Aug 31. PMID 20809526.
Tyrosine Hydroxylase Polymorphism (C-824T) and Hypertension: A Population-Based Study. Nielsen SJ, et al. Am J Hypertens, 2010 Aug 12. PMID 20706199.
[Study of follicle-stimulating hormone receptor and tyrosine hydroxylase polymorphisms and pre-eclampsia in Chinese Han population] Chen Y, et al. Zhonghua Yi Xue Za Zhi, 2010 May 4. PMID 20646572.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.