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Anti-Tyrosine Hydroxylase Picoband Antibody

Catalog # ABO12138

Specification

Anti-Tyrosine Hydroxylase Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P07101
Host	**Rabbit**
Reactivity	**Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Tyrosine 3-monooxygenase(TH) detection. Tested with WB, IHC-P in Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Tyrosine Hydroxylase Picoband Antibody - Additional Information

Gene ID 7054

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

Calculated MW
58600 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

Tissue Specificity
Mainly expressed in the brain and adrenal glands.

Protein Name
Tyrosine 3-monooxygenase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human Tyrosine Hydroxylase (193-222aa KVPWFPRKVSELDKCHHLVTKFDPDLDLDH), identical to the related mouse and rat sequences.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the biopterin-dependent aromatic amino acid hydroxylase family.

Anti-Tyrosine Hydroxylase Picoband 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 cathecolamines, 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.

Anti-Tyrosine Hydroxylase Picoband Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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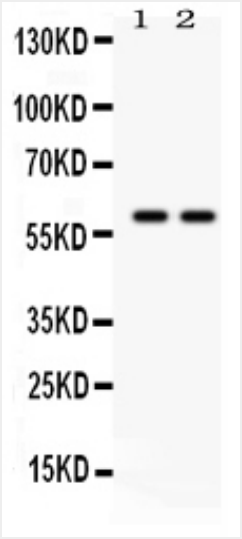
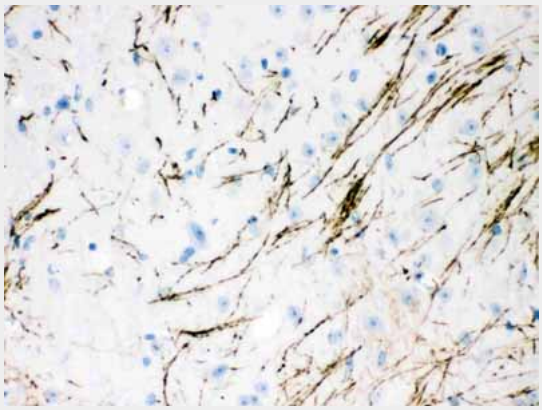
- Flow Cytomety
- Cell Culture

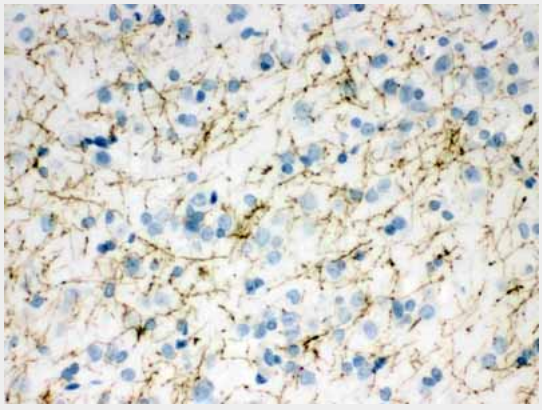
Anti-Tyrosine Hydroxylase Picoband Antibody - Images



Anti- Tyrosine Hydroxylase Picoband antibody, ABO12138, Western blottingAll lanes: Anti Tyrosine Hydroxylase (ABO12138) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Tissue Lysate at 50ugPredicted bind size: 59KDObserved bind size: 59KD



Anti- Tyrosine Hydroxylase Picoband antibody, ABO12138,IHC(P)IHC(P): Mouse Brain Tissue



Anti- TH Picoband antibody, ABO12138,IHC(P)IHC(P): Rat Brain Tissue

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Anti-Tyrosine Hydroxylase Picoband Antibody - Background

TH is equal to tyrosine hydroxylase. 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. In humans, tyrosine hydroxylase is encoded by the TH gene, and the enzyme is present in the central nervous system (CNS), peripheral sympathetic neurons and the adrenal medulla. Tyrosine hydroxylase, phenylalanine hydroxylase and tryptophan hydroxylase together make up the family of aromatic amino acid hydroxylases (AAAHs).