Datasheet for ABIN3043947

anti-Tyrosine Hydroxylase antibody (Middle Region)

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Overview

Quantity:	100 µg
Target:	Tyrosine Hydroxylase (TH)
Binding Specificity:	AA 193-222, Middle Region
Reactivity:	Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Tyrosine Hydroxylase antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	Anti-Tyrosine Hydroxylase/TH Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human Tyrosine Hydroxylase, identical to the related mouse and rat sequences.
Sequence:	KVPWFPRKVS ELDKCHHLVT KFDPDLDLDH
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Rabbit IgG polyclonal antibody for Tyrosine 3-monooxygenase(TH) detection. Tested with WB, IHC-P in Mouse,Rat. Gene Name: tyrosine hydroxylase Protein Name: Tyrosine 3-monooxygenase

Product Details

Purification:	Immunogen affinity purified.

Target Details

Target:	Tyrosine Hydroxylase (TH)
Alternative Name:	Tyrosine Hydroxylase (TH Products)
Background:	Synonyms: Tyrosine 3-monooxygenase,1.14.16.2,Tyrosine 3-hydroxylase,TH,TH,TYH, Tissue Specificity: Mainly expressed in the brain and adrenal glands. 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). Sequence Similarities: Belongs to the biopterin-dependent aromatic amino acid hydroxylase family.
Molecular Weight:	59 kDa
Gene ID:	7054
UniProt:	P07101
Pathways:	Dopaminergic Neurogenesis, Response to Water Deprivation, Sensory Perception of Sound, Carbohydrate Homeostasis, Feeding Behaviour

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/mL, Mouse, Rat Immunofluorescence, 5 µg/mL, Mouse, Rat 1. Haavik J, Toska K (June 1998). "Tyrosine hydroxylase and Parkinson's disease". Mol. Neurobiol. 16 (3): 285-309. 2. Kaufman S (1995). "Tyrosine hydroxylase". Adv. Enzymol. Relat. Areas Mol. Biol. Advances in Enzymology - and Related Areas of Molecular Biology 70: 103-220. Nagatsu T (1995). "Tyrosine hydroxylase: human isoforms, structure and regulation in physiology and pathology". Essays Biochem.30: 15-35.

Application Details

Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in:	Hu, Wang, Ren, Liu: "Autonomic remodeling may be responsible for decreased incidence of aortic dissection in STZ-induced diabetic rats via down-regulation of matrix metalloprotease 2." in: **BMC cardiovascular disorders**, Vol. 16, Issue 1, pp. 200, (2017) (PubMed). Su, Fu, Zhang, Shi, Zhang, Gao: "Identification and expression of SRF targeted by miR-133a during early development of Paralichthys olivaceus." in: **Fish physiology and biochemistry**, Vol. 41, Issue 5, pp. 1093-104, (2015) (PubMed). Deng, Jiao, Mi, Xu, Li, Wang, Liu, Xu: "Melatonin inhibits manganese-induced motor dysfunction and neuronal loss in mice: involvement of oxidative stress and dopaminergic neurodegeneration." in: **Molecular neurobiology**, Vol. 51, Issue 1, pp. 68-88, (2015) (PubMed). Li, Jiang, Jiang, Yang, Ma, Yang: "Effect of Guizhi Decoction ([symbols; see text]) on heart rate

Publications

variability and regulation of cardiac autonomic nervous imbalance in diabetes mellitus rats." in: **Chinese journal of integrative medicine**, Vol. 20, Issue 7, pp. 524-33, (2014) (PubMed).

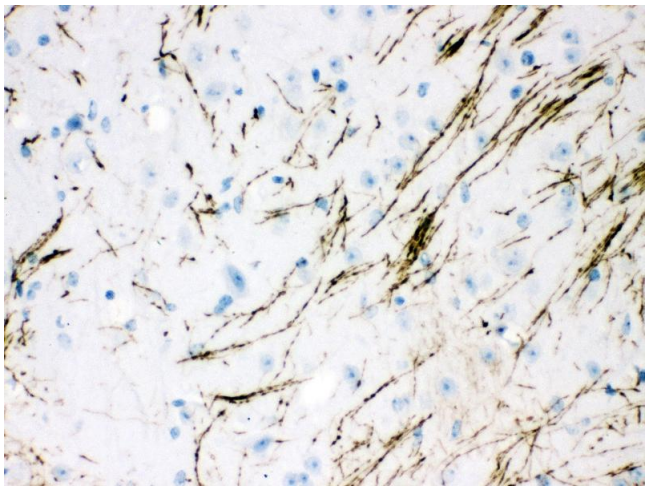
Zhao, Cheng, Fan, Yang, Ye, Cui, Wei, Lao, Cai, Han, Rong et al.: "Botanical drug puerarin coordinates with nerve growth factor in the regulation of neuronal survival and neuritogenesis via activating ERK1/2 and PI3K/Akt signaling pathways in the neurite extension ..." in: **CNS neuroscience & therapeutics**, Vol. 21, Issue 1, pp. 61-70, (2014) (PubMed).

There are more publications referencing this product on: Product page

Images

Western Blotting

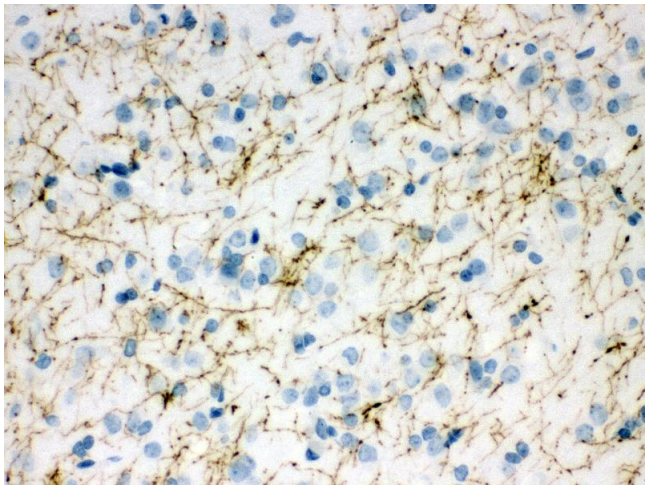
Image 1. Anti- TH Picoband antibody, Western blotting All lanes: Anti TH at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Predicted bind size: 59KD Observed bind size: 59KD



Immunohistochemistry

Image 2. Anti- TH Picoband antibody,IHC(P) IHC(P): Mouse Brain Tissue

Images



Immunohistochemistry

Image 3. Anti- TH Picoband antibody,IHC(P) IHC(P): Rat Brain Tissue