Best Tools for immunology Research

Tyrosine Hydroxylase rabbit pAb

Catalog No :	YT4637
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	Tyrosine Hydroxylase
Fields :	>>Tyrosine metabolism;>>Folate biosynthesis;>>Metabolic pathways;>>Dopaminergic synapse;>>Prolactin signaling pathway;>>Parkinson disease;>>Cocaine addiction;>>Amphetamine addiction;>>Alcoholism
Gene Name :	TH
Protein Name :	Tyrosine 3-monooxygenase (EC 1.14.16.2) (Tyrosine 3-hydroxylase) (TH),Tyrosine Hydrolase
Human Gene Id :	7054
Human Swiss Prot No :	P07101
Mouse Gene Id :	21823
Mouse Swiss Prot No :	P24529
Rat Gene Id :	25085
Rat Swiss Prot No :	P04177
Immunogen :	The antiserum was produced against synthesized peptide derived from human Tyrosine Hydroxylase. AA range:41-90
Specificity :	TH Polyclonal Antibody detects endogenous levels of TH protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG

Dilution : WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 55kD

Cell Pathway : Tyrosine metabolism;Parkinson's disease;

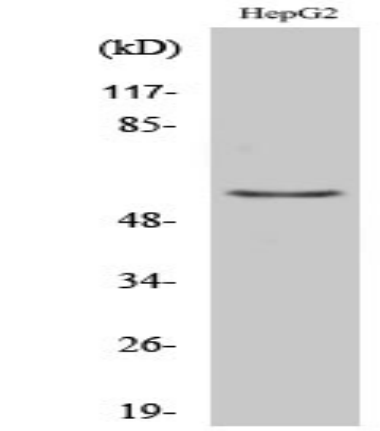
Background : The protein encoded by this gene is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the synthesis of catecholamines, hence plays a key role in the physiology of adrenergic neurons. Mutations in this gene have been associated with autosomal recessive Segawa syndrome. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008],

Function : catalytic activity:L-tyrosine + tetrahydrobiopterin + O(2) = 3,4-dihydroxy-L-phenylalanine + 4a-hydroxytetrahydrobiopterin.,cofactor:Fe(2+) ion.,disease:Defects in TH are the cause of dystonia DOPA-responsive autosomal recessive (ARDRD) [MIM:605407]; also known as autosomal recessive Segawa syndrome. ARDRD is a form of DOPA-responsive dystonia presenting in infancy or early childhood. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. Some cases of ARDRD present with parkinsonian symptoms in infancy. Unlike all other forms of dystonia, it is an eminently treatable condition, due to a favorable response to L-DOPA.,enzyme regulation:Phosphorylation leads to an increase in the catalytic activity.,function:Plays an important role in the physiology of adrenergic neurons.,online information:Tyrosine hydroxylase entry,pathway:Ca

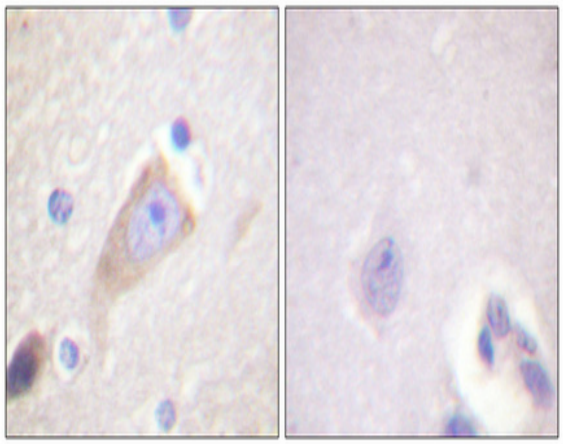
Subcellular Location : Cytoplasm, perinuclear region . Nucleus . Cell projection, axon . Cytoplasm . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle . When phosphorylated at Ser-19 shows a nuclear distribution and when phosphorylated at Ser-31 as well at Ser-40 shows a cytosolic distribution (By similarity). Expressed in dopaminergic axons and axon terminals. .

Expression : Mainly expressed in the brain and adrenal glands.

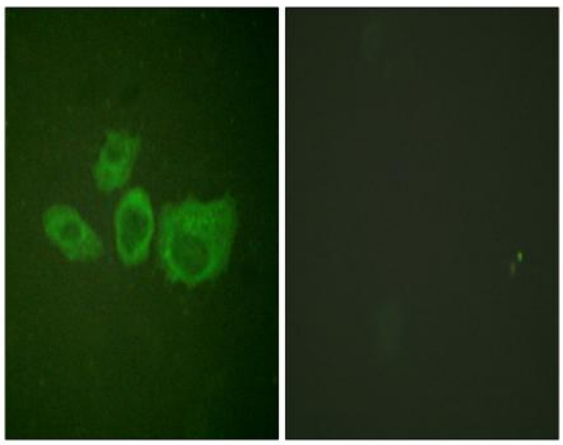
Products Images



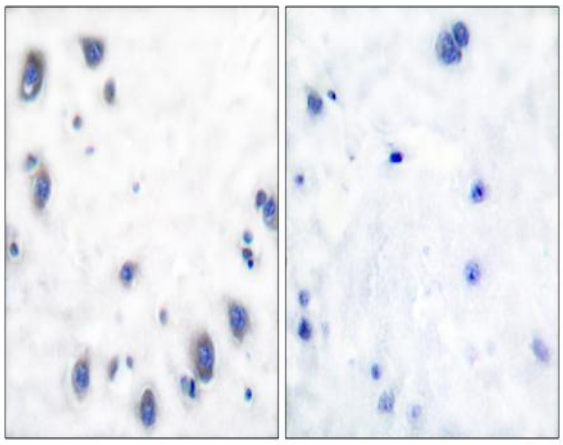
Western Blot analysis of various cells using TH Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



Immunofluorescence analysis of HUVEC cells, using Tyrosine Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Tyrosine Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.