

## TH (phospho Ser62) Polyclonal Antibody

Catalog No: YP0588

**Reactivity:** Human; Mouse; Rat; Monkey

**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** 

**Prot** P07101

No:

Mouse Gene Id: 21823

**Mouse Swiss Prot** 

ot P24529

No:

Rat Gene ld: 25085

Rat Swiss Prot No: P04177

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

Tyrosine Hydroxylase around the phosphorylation site of Ser31. AA range:1-50

**Specificity:** Phospho-TH (S62) Polyclonal Antibody detects endogenous levels of TH protein

only when phosphorylated at S62.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

1/4



**Dilution:** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200

**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: 60kD

Subcellular

Location:

**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

adionorgie nedione, orinine information. Tyrodine nydroxylado oriny, patriway. ed

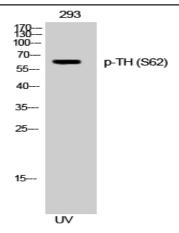
Cytoplasm, perinuclear region . Nucleus . Cell projection, axon . Cytoplasm . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle . When phosphorylated at

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

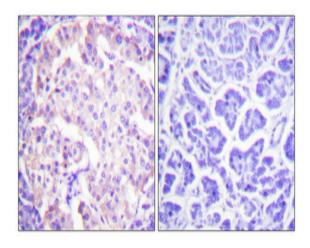
axons and axon terminals. .

**Expression:** Mainly expressed in the brain and adrenal glands.

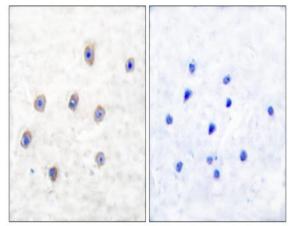
## **Products Images**



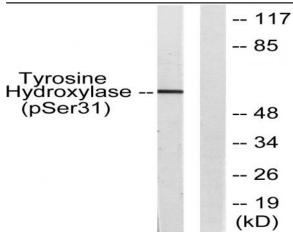
Western Blot analysis of 293 cells using Phospho-TH (S62) Polyclonal Antibody



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



Immunohistochemistry analysis of paraffin-embedded human brain, using Tyrosine Hydroxylase (Phospho-Ser31) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells treated with UV 15', using Tyrosine Hydroxylase (Phospho-Ser31) Antibody. The lane on the right is blocked with the phospho peptide.