

## TH (Phospho Ser62) Rabbit pAb

CatalogNo: YP0588 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat, Monkey

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 60kD (Observed)

#### Isotype

- IgG

### Storage

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

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

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:5000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**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. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):VTsPR

## Target Information

**Gene name** TH

**Protein Name** Tyrosine 3-monooxygenase (Tyrosine 3-hydroxylase) (TH) ,Tyrosine Hydrolase

Organism	Gene ID	UniProt ID
Human	<a href="#">7054;</a>	<a href="#">P07101;</a>
Mouse	<a href="#">21823;</a>	<a href="#">P24529;</a>
Rat	<a href="#">25085;</a>	<a href="#">P04177;</a>

### Cellular Localization

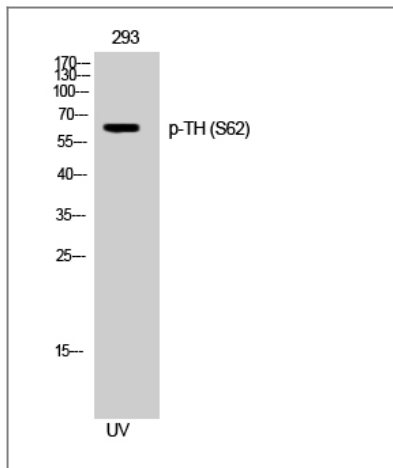
Cytoplasm , perinuclear region . Nucleus . Cell projection , axon . Cytoplasm . Cytoplasmic vesicle , secretory vesicle , synaptic vesicle . When phosphorylated at Ser-19 shows a nuclear distribution and when phosphorylated at Ser-31 as well at Ser-40 shows a cytosolic distribution (By similarity) .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

**Tissue specificity** Mainly expressed in the brain and adrenal glands.

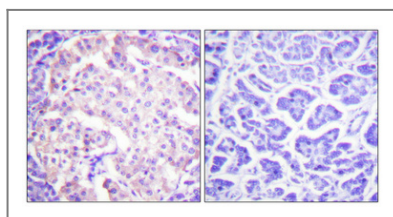
### Function

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:Catecholamine biosynthesis; dopamine biosynthesis; dopamine from L-tyrosine: step 1/2. ,similarity:Belongs to the biopterin-dependent aromatic amino acid hydroxylase family. ,tissue specificity:Mainly expressed in the brain and adrenal glands. ,

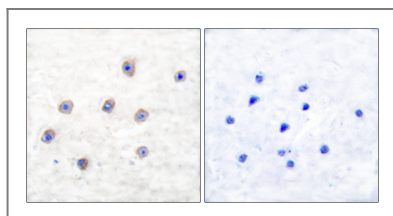
## Validation Data



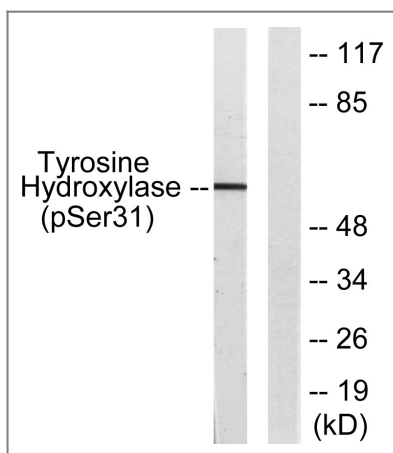
Western Blot analysis of 293 cells using Phospho-TH (S62) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human pancreas. Antibody was diluted at 1:100 (4°C overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed 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.

## Contact information

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Please scan the QR code to access additional product information:  
**TH (Phospho Ser62)**  
**Rabbit pAb**

