
Product Name: TH (phospho Ser71) Rabbit Polyclonal Antibody**Catalog #: APRab05553**

For research use only.

Summary

| | |
|----------------------|---|
| Description | Rabbit polyclonal Antibody |
| Host | Rabbit |
| Application | WB,IHC,ICC/IF,ELISA |
| Reactivity | Human,Mouse,Rat |
| Conjugation | Unconjugated |
| Modification | Phosphorylated |
| Isotype | IgG |
| Clonality | Polyclonal |
| Form | Liquid |
| Concentration | 1mg/ml |
| Storage | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| Shipping | Ice bags |
| Buffer | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| Purification | Affinity purification |

Application

| | |
|-------------------------|---|
| Dilution Ratio | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000 |
| Molecular Weight | 55kDa |

Antigen Information

| | |
|--------------------------|---|
| Gene Name | TH |
| Alternative Names | TH; TYH; Tyrosine 3-monooxygenase; Tyrosine 3-hydroxylase; TH |
| Gene ID | 7054.0 |
| SwissProt ID | P07101 |
| Immunogen | The antiserum was produced against synthesized peptide derived from human Tyrosine Hydroxylase around the phosphorylation site of Ser40. AA range:41-90 |

Background

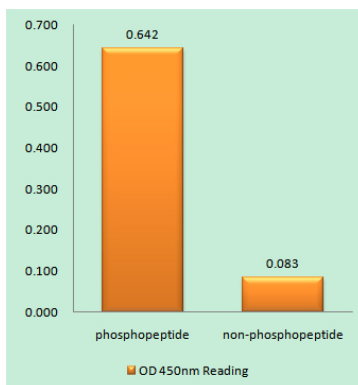
The protein encoded by this gene is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the

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],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.,

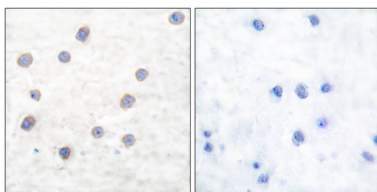
Research Area

Tyrosine metabolism;Parkinson's disease;

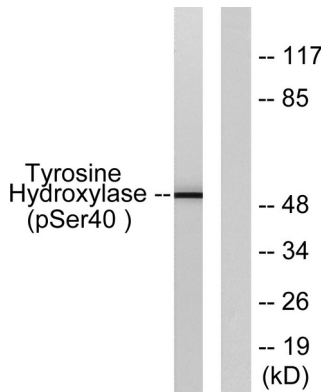
Image Data



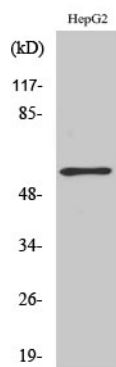
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Tyrosine Hydroxylase (Phospho-Ser40) Antibody



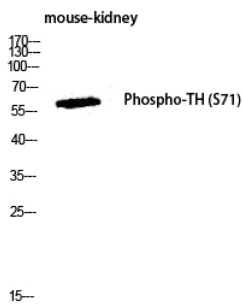
Immunohistochemistry analysis of paraffin-embedded human brain, using Tyrosine Hydroxylase (Phospho-Ser40) Antibody. The picture on the right is blocked with the phospho peptide.



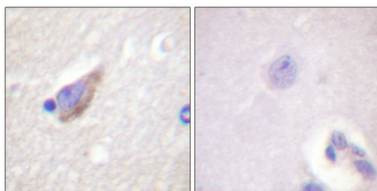
Western blot analysis of lysates from RAW264.7 cells treated with UV 30 min, using Tyrosine Hydroxylase (Phospho-Ser40) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of various cells using Phospho-TH (S71) Polyclonal Antibody diluted at 1:1000



Western blot analysis of mouse-kidney lysis using Phospho-TH (S71) antibody. Antibody was diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°C, overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.