

**TH (phospho Ser71) Polyclonal Antibody**

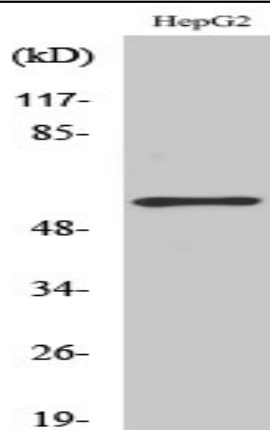
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|------------------------------|--|
| <b>Catalog No :</b>          | YP0589   |
| <b>Reactivity :</b>          | Human;Mouse;Rat  |
| <b>Applications :</b>        | WB;IHC;IF;ELISA  |
| <b>Target :</b>              | Tyrosine Hydroxylase   |
| <b>Fields :</b>              | >>Tyrosine metabolism;>>Folate biosynthesis;>>Metabolic pathways;>>Dopaminergic synapse;>>Prolactin signaling pathway;>>Parkinson disease;>>Cocaine addiction;>>Amphetamine addiction;>>Alcoholism |
| <b>Gene Name :</b>           | TH   |
| <b>Protein Name :</b>        | Tyrosine 3-monooxygenase (EC 1.14.16.2) (Tyrosine 3-hydroxylase) (TH),Tyrosine Hydrolase   |
| <b>Human Gene Id :</b>       | 7054   |
| <b>Human Swiss Prot No :</b> | P07101   |
| <b>Mouse Gene Id :</b>       | 21823  |
| <b>Mouse Swiss Prot No :</b> | P24529   |
| <b>Rat Gene Id :</b>         | 25085  |
| <b>Rat Swiss Prot No :</b>   | P04177   |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human Tyrosine Hydroxylase around the phosphorylation site of Ser40. AA range:41-90  |
| <b>Specificity :</b>         | Phospho-TH (S71) Polyclonal Antibody detects endogenous levels of TH protein only when phosphorylated at S71.  |
| <b>Formulation :</b>         | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.  |
| <b>Source :</b>              | Polyclonal, Rabbit,IgG   |

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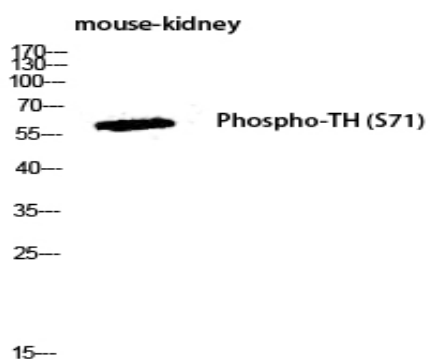
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|-------------------------------|--|
| <b>Dilution :</b>             | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200   |
| <b>Purification :</b>         | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.  |
| <b>Concentration :</b>        | 1 mg/ml  |
| <b>Storage Stability :</b>    | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Observed Band :</b>        | 55kD   |
| <b>Cell Pathway :</b>         | Tyrosine metabolism;Parkinson's disease;   |
| <b>Background :</b>           | 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],  |
| <b>Function :</b>             | 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 |
| <b>Subcellular Location :</b> | 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. .  |
| <b>Expression :</b>           | Mainly expressed in the brain and adrenal glands.  |

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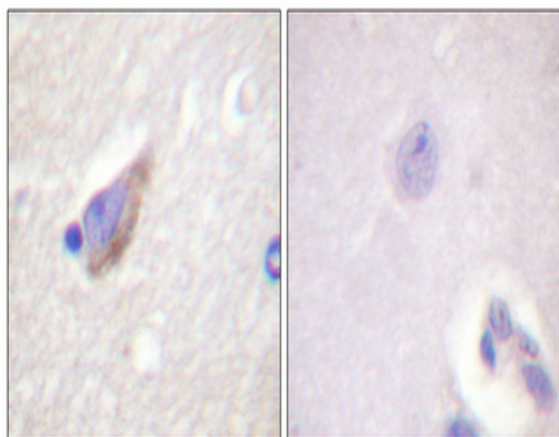
## Products Images



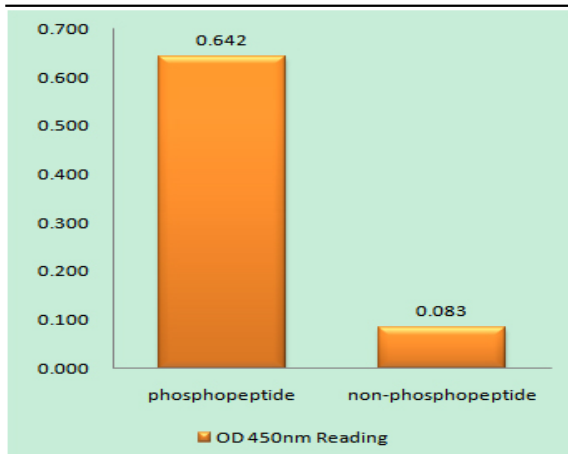
Western Blot analysis of various cells using Phospho-TH (S71)  
Polyclonal Antibody diluted at 1:1000



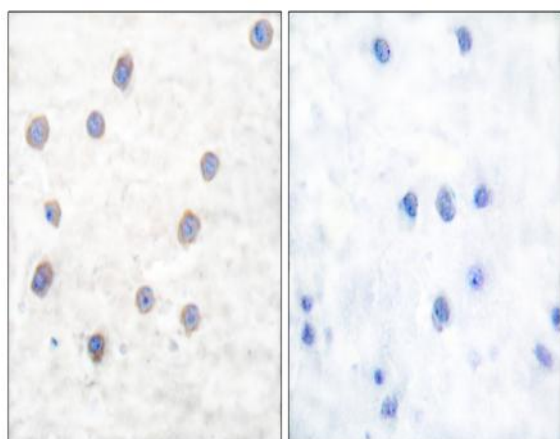
Western blot analysis of mouse-kidney lysis using Phospho-TH  
(S71) antibody. Antibody was diluted at 1:1000



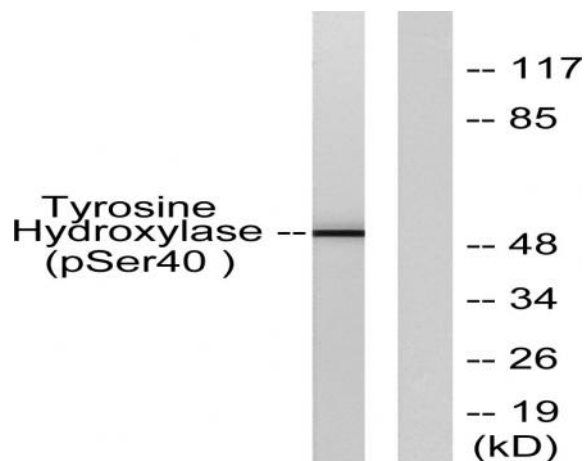
Immunohistochemical analysis of paraffin-embedded Human  
brain. Antibody was diluted at 1:100(4° overnight). High-pressure  
and temperature Tris-EDTA,pH8.0 was used for antigen retrieval.  
Negative contrl (right) obtaned from antibody was pre-absorbed  
by immunogen peptide.



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', using Tyrosine Hydroxylase (Phospho-Ser40) Antibody. The lane on the right is blocked with the phospho peptide.