

Product Name: TH Rabbit Polyclonal Antibody**Catalog #: APRab18871**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
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 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	56kDa

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. AA range:10-59

Background

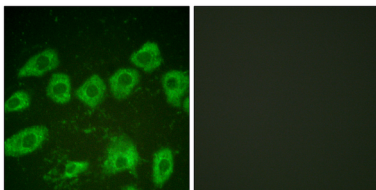
The protein encoded by this gene is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the

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.,

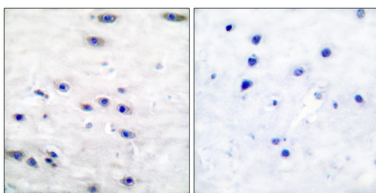
Research Area

Tyrosine metabolism;Parkinson's disease;

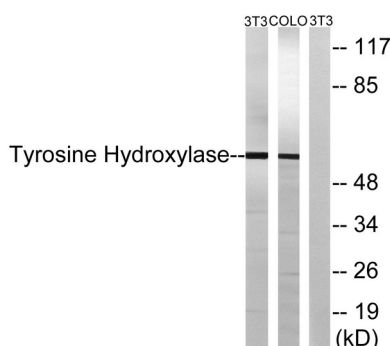
Image Data



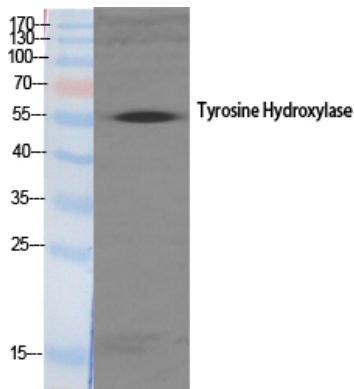
Immunofluorescence analysis of HUVEC cells, using Tyrosine Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.



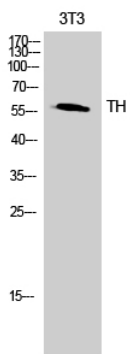
Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Tyrosine Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.



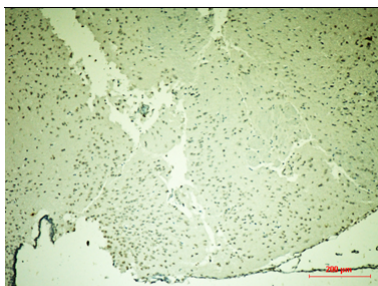
Western blot analysis of lysates from NIH/3T3/COLO cells, treated with Forskolin 40nM 30', using Tyrosine Hydroxylase Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using TH Polyclonal Antibody



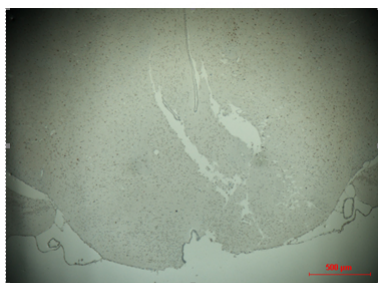
Western Blot analysis of 3T3 cells using TH Polyclonal Antibody



mouse-brain

The picture was kindly provided by our customer

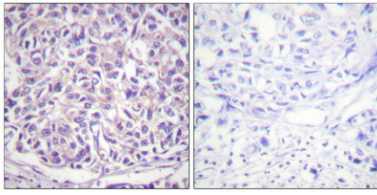
Sun Yat-Sen University



mouse-brain

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Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100 (4°, 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.