

Tyrosine Hydroxylase Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1061

Specification

Tyrosine Hydroxylase Antibody - Product Information

Application	FC, WB, IHC
Primary Accession	P04177
Reactivity	Bovine, Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	60 KDa

Tyrosine Hydroxylase Antibody - Additional Information

Gene ID	25085
Gene Name	TH
Other Names	
Tyrosine 3-monooxygenase, Tyrosine 3-hydroxylase, TH, Th	

Target/Specificity

SDS-denatured, native rat tyrosine hydroxylase purified from pheochromocytoma.

Dilution

FC~~1:1000
WB~~ 1:1000
IHC~~1:1000

Format

Prepared from rabbit serum by affinity purification using a protein A column and using a column to which the immunogen was coupled

Antibody Specificity

Specific for the ~60k tyrosine hydroxylase protein.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Tyrosine Hydroxylase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

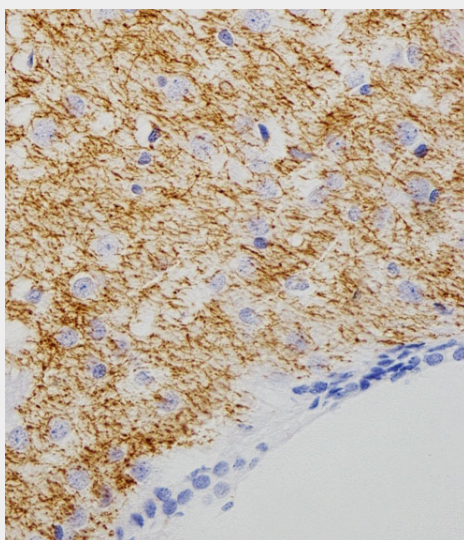
Blue Ice

Tyrosine Hydroxylase Antibody - Protocols

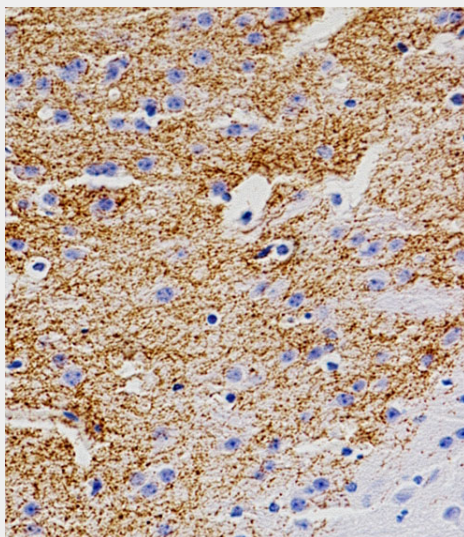
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

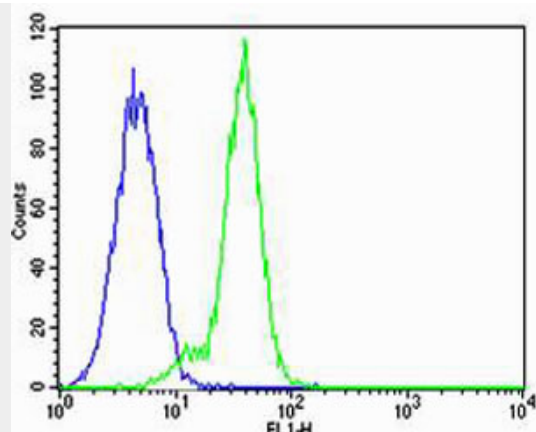
Tyrosine Hydroxylase Antibody - Images



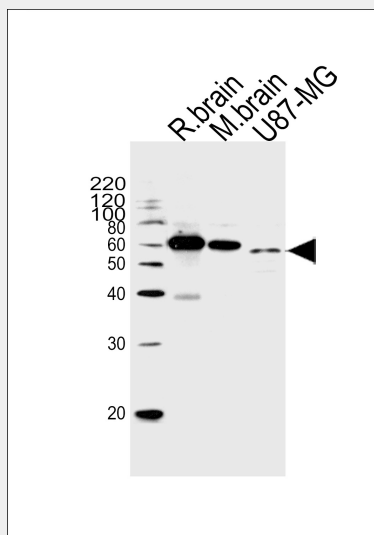
Immunohistochemical analysis of paraffin-embedded R. brain section using Tyrosine Hydroxylase Antibody (Cat#AN1061). AN1061 was diluted at 1:1000 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



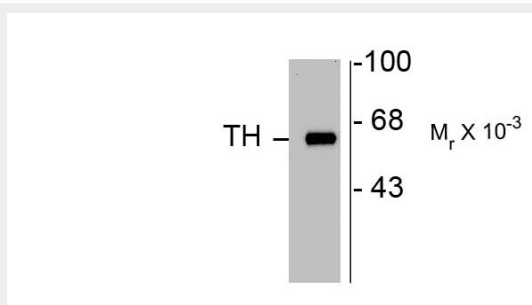
Immunohistochemical analysis of paraffin-embedded M. brain section using Tyrosine Hydroxylase Antibody (Cat#AN1061). AN1061 was diluted at 1:1000 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Flow cytometric analysis of PC-12 cells using Park7 (DJ-1) Antibody(green, Cat#AN1061) compared to an isotype control of rabbit IgG(blue). AN1061 was diluted at 1:1000 dilution. An Alexa Fluor® 488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.



Western blot analysis of lysates from rat brain, mouse brain tissue lysate and U87-MG cell line(from left to right), using Th Antibody(Cat. #AN1061). AN1061 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot of 10 ug of rat caudate lysate showing specific immunolabeling of the ~60k TH protein.

Tyrosine Hydroxylase Antibody - Background

Tyrosine hydroxylase (TH) is the rate-limiting enzyme in the synthesis of the catecholamines dopamine and norepinephrine. TH antibodies can therefore be used as markers for dopaminergic

and noradrenergic neurons in a variety of applications including depression, schizophrenia, Parkinson's disease and drug abuse (Kish et al., 2001; Zhu et al., 2000; Zhu et al., 1999). TH antibodies can also be used to explore basic mechanisms of dopamine and norepinephrine signaling (Witkovsky et al., 2000; Salvatore et al., 2001; Dunkley et al., 2004).

Tyrosine Hydroxylase Antibody - References

- Dunkley PR, Bobrovskaya L, Graham ME, Von Nagy-Felsobuki EI, Dickson PW (2004) Tyrosine hydroxylase phosphorylation: regulation and consequences. *J Neurochem* 91:1025-1043.
- Kish SJ, Kalasinsky KS, Derkach P, Schmunk GA, Guttman M, Ang L, Adams V, Furukawa Y, Haycock JW (2001) Striatal dopaminergic and serotonergic markers in human heroin users. *Neuropsychopharmacology* 24:561-567.
- Salvatore MF, Waymire JC, Haycock JW (2001) Depolarization-stimulated catecholamine biosynthesis: involvement of protein kinases and tyrosine hydroxylase phosphorylation sites in situ. *J Neurochem* 79:349-360.
- Witkovsky P, Gabriel R, Haycock JW, Meller E (2000) Influence of light and neural circuitry on tyrosine hydroxylase phosphorylation in the rat retina. *J Chem Neuroanat* 19:105-116.
- Xu ZQ, Lew JY, Harada K, Aman K, Goldstein M, Deutch A, Haycock JW, Hokfelt T (1998) Immunohistochemical studies on phosphorylation of tyrosine hydroxylase in central catecholamine neurons using site- and phosphorylation state-specific antibodies. *Neurosci* 82:727-738.
- Zhu MY, Klimek V, Haycock JW, Ordway GA (2000) Quantitation of tyrosine hydroxylase protein in the locus coeruleus from postmortem human brain. *J Neurosci Meth* 99:37-44.
- Zhu MY, Klimek V, Dilley GE, Haycock JW, Stockmeier C, Overholser JC, Meltzer HY, Ordway GA (1999) Elevated levels of tyrosine hydroxylase in the locus coeruleus in major depression. *Biol Psychiatry* 46:1275-1286.