



IHC image in rat midbrain.

Tyrosine Hydroxylase Antibody

Catalog #	22941	Product type	Primary antibodies
Lot #	1241002	Clonality	Mouse Monoclonal
Form	Lyophilized ascites (100 µL)	Isotype	IgG1
Host	Mouse	Preservative	Not applicable
Reacts With	Amphibian, Bee, Bird, Boar, Cat, Chicken, Crab, Dog, Eel, Ferret, Fish, Fly, Fox, Frog, Gerbil, Guinea Pig, Hamster, Hen, Human, Iguana, Leech, Lizard, Llama, Lobster, Locust, Mollusca, Monkey, Mouse, Opossum, Pig, Possum, Rabbit, Rat, Sea Coral, Shark, Sheep, Slug, Snail, Snake, Trout, Turkey, Turtle, Worm, Yeast, Zebra Finch, Zebrafish + more	Antigen	TH purified from rat PC12 cells.

INSTRUCTIONS

Preparation	<p>Do not reconstitute until ready to use since the product is most stable when lyophilized. The product does not need to be kept cooled during shipping; however, for long-term storage, store lyophilized antibody until ready to use at -15°C or lower. Reconstitute with 100 µL of distilled or deionized water. After reconstitution, use immediately or refrigerate at 2°-8°C. To avoid freeze/thaw cycles, dilute unused antibody with PBS or Tris buffer at a dilution no higher than 1/10, then aliquot and freeze at -15°C or lower.</p> <p>Refer to the Instruction Manual available online at immunostar.com for information on tissue preparation, immunostaining techniques, troubleshooting, and formulas.</p>
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APPLICATION

IHC Quality Control	<p>The antibody has wide species cross-reactivity because it recognizes an epitope in the catalytic core of the TH molecule where extensive species homology exists. TH antiserum was quality control tested using standard immunohistochemical methods. The antiserum demonstrates significant labeling of rat catecholamine neuron systems using indirect immunofluorescent and biotin/avidin-HRP techniques. This antibody does not cross react with phenylalanine hydroxylase or tryptophan hydroxylase.</p> <p>The immunogen used to produce the TH antibody was full-length TH purified to homogeneity from PC12 cells, which are of rat origin. The exact epitope recognized by this antibody is not known but our studies indicate that following partial digestion of TH with the protease chymotrypsin the antibody recognizes the 34 kDa catalytic core of TH.</p> <p>HEK293 cells were transiently transfected to express human TH protein. Protein extracts from non-transfected and transfected cells were resolved by SDS-PAGE and transferred to nitrocellulose for western blotting. The blot was probed using our monoclonal antibody to TH and then stripped and re-probed using an antibody to beta-actin. This analysis shows that only extracts derived from cells transfected to express TH contain TH protein identified by the 60 kDa immunoreactive band, while non-transfected and transfected cells both express beta-actin protein.</p>
Tissue	Rat striatum and substantia nigra
Perfusion Fixation	<ul style="list-style-type: none"> • Fixture: 4% paraformaldehyde in 0.1 M phosphate buffer, pH 7.4. • Post Fixation: 1.5 hr. at 4°C in 4% paraformaldehyde in 0.1 M phosphate buffer, pH 7.4.
Sections	10 µm cryostat frozen or 50 µm vibratome
Tissue Incubation	18–24 hours at 2°–8°C
Detection System	Use Cy3 or Bn-AV/HRP reagents at dilutions recommended by the manufacturers.
Suggested Dilution	1/4,000 – 1/8,000 in PBS/0.3% Triton X-100 Bn-Av/HRP immunohistochemistry

NOTES

Special Instructions	It is recommended that the researcher perform a primary antibody dilution series using our dilution recommendations as a guideline. Note that a change in the fixation or buffering system from our protocol may change the configuration of the protein which could alter the reactivity with the tissue tested.
Storage	After reconstitution, use immediately or refrigerate at 2°–8°C up to 2 days. For long-term storage, aliquot antibody and freeze at -15°C or lower. Avoid repeated freeze/thaw cycles
Concentration	Not applicable. Antibody concentration is only relevant for purified antibodies.
Journal References	www.immunostar.com/publications

For Laboratory Reagent Use Only. Analytical and performance characteristics are not established.

ALL PRODUCTS ARE FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE

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