

# Product Datasheet

## Tyrosine Hydroxylase [p Ser40] Antibody - Azide Free NB300-173

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Reviews: 1 Publications: 10**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB300-173](http://www.novusbio.com/NB300-173)

Updated 2/21/2025 v.20.1

Earn rewards for product  
reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB300-173](http://www.novusbio.com/reviews/destination/NB300-173)

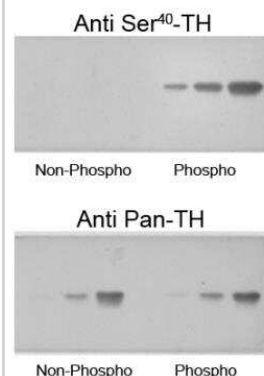


**NB300-173****Tyrosine Hydroxylase [p Ser40] Antibody - Azide Free**

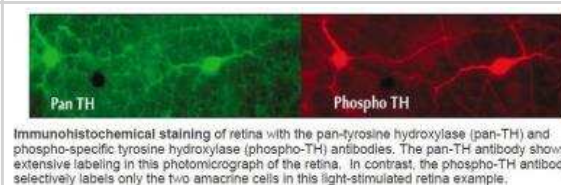
<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	Please see the vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	No Preservative
<b>Isotype</b>	IgG
<b>Purity</b>	Antigen Affinity-purified
<b>Buffer</b>	10 mM HEPES (pH 7.5), 0.15 M NaCl, 0.1 mg/mL BSA, 50% Glycerol
<b>Target Molecular Weight</b>	60 kDa
<b>Product Description</b>	
<b>Host</b>	Rabbit
<b>Gene ID</b>	7054
<b>Gene Symbol</b>	TH
<b>Species</b>	Mouse, Rat, Mammal
<b>Reactivity Notes</b>	Reactivity assumed based on sequence identity to a wide variety of mammalian and non-mammalian species.
<b>Marker</b>	Neuronal Marker
<b>Specificity/Sensitivity</b>	Specific for the ~60 kDa tyrosine hydroxylase protein phosphorylated at Ser40. Some higher molecular weight bands may be detected by the antibody depending upon the brain region being studied, protein loads and the detection methods used. The antibody has three orders of magnitude selectivity over dephospho TH.
<b>Immunogen</b>	Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyrosine Hydroxylase conjugated to KLH. Accession # P04177
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
<b>Recommended Dilutions</b>	Western Blot 1:1000, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:1000, Immunohistochemistry-Frozen 1:1000

## Images

Tyrosine Hydroxylase [p Ser40] Antibody [NB300-173] - Western blot of recombinant phospho-TH and non-phospho-TH showing selective immunolabeling by the phosphospecific antibody of the ~60 kDa TH phosphorylated at Ser40. The pan-specific antibody (anti-pan-TH) recognized both the phospho- and non-phospho-TH; while most importantly, the phospho-specific antibody (anti-Ser40 TH) recognized only phospho-TH.



Immunohistochemistry: Tyrosine Hydroxylase [p Ser40] Antibody [NB300-173] - Immunohistochemical staining of retina with the pan-tyrosine hydroxylase (pan-TH) and phospho-specific tyrosine hydroxylase (phospho-TH) antibodies. The pan-TH antibody shows extensive labeling in this photomicrograph of the retina. In contrast, the phospho-TH antibody selectively labels only the two amacrine cells in this light-stimulated retina example.



## Publications

Naumova AA, Oleynik EA, Khramtsova AV et al. Short-term hindlimb unloading negatively affects dopaminergic transmission in the nigrostriatal system of mice *Developmental neurobiology* 2023-07-24 [PMID: 37489016]

Bourdon R Regulation of epinephrine biosynthesis by intermittent and continuous hypoxia *Nat Commun* 2020-02-07 [PMID: 32024825]

Thapa D, Valente JS, Barrett B Et al. Dysfunctional TRPM8 signalling in the vascular response to environmental cold in ageing *eLife* 2021-11-02 [PMID: 34726597] (WB, Mouse)

Acosta G, Race N, Herr S et al. Acrolein-mediated alpha-synuclein pathology involvement in the early post-injury pathogenesis of mild blast-induced Parkinsonian neurodegeneration *Mol. Cell. Neurosci.* 2019-06-12 [PMID: 31201929] (WB, Rat)

Acosta GHG. Susceptibility of parkinson's disease following mild blast traumatic brain injury Thesis. 2014-08-01 (WB, Rat)

Soliz J, Joseph V, Soulage C et al. Erythropoietin regulates hypoxic ventilation in mice by interacting with brainstem and carotid bodies *J Physiol.* 2005-10-15 [PMID: 16051624] (IF/IHC, Mouse)

Witkovsky P, Gabriel R, Haycock JW et al. Influence of light and neural circuitry on tyrosine hydroxylase phosphorylation in the rat retina. *J Chem Neuroanat.* 2000-06-01 [PMID: 10936746] (IHC-Fr)

Gassmann M, Pfistner C, Doan VD et al. Impaired ventilatory acclimatization to hypoxia in female mice overexpressing erythropoietin: unexpected deleterious effect of estradiol in carotid bodies. *Am J Physiol Regul Integr Comp Physiol* 2010-12-01 [PMID: 20861276] (ICC/IF, IHC-Fr, Mouse)

Salvatore, MF et al. Stoichiometry of tyrosine hydroxylase phosphorylation in the nigrostriatal mesolimbic systems in vivo: effects of acute haloperidol related compounds. *J Neurochem*, 75: 225-232. 2000-01-01 [PMID: 10854265]

Lew, JY et al. Increased site-specific phosphorylation of tyrosine hydroxylase accompanies stimulation of enzymatic activity induced by cessation of dopamine neuronal activity. *Mol Pharm*, 55: 202-209. 1998-01-01 [PMID: 9927609]



### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB300-173**

---

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-42461	Recombinant Human Tyrosine Hydroxylase His Protein

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB300-173](http://www.novusbio.com/reviews/submit/NB300-173)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

