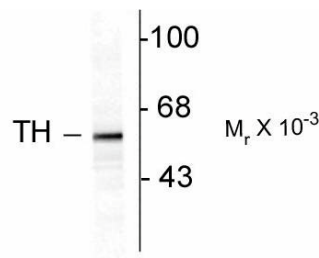


Pel-Freez[®]**Product Specifications****Anti-Tyrosine Hydroxylase****Size:** 150 μ l**Product Description:** Affinity purified sheep polyclonal antibody**Applications: WB:** 1:1000**IF** (frozen sections; unpublished observations): 1:1000**IHC** (frozen sections; unpublished observations): 1:1000**Antigen:** Native rat tyrosine hydroxylase, purified from pheochromocytoma.**Species reactivity:** The antibody recognizes all mammalian and at least some non-mammalian forms of the enzyme in Western blots and in IHC/IF.**Biological Significance:** 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).**Anti-Tyrosine Hydroxylase**

Western blot of 10 μ g of rat caudate lysate showing specific immunolabeling of the ~60k tyrosine hydroxylase protein.

Purification Method: Prepared from sheep serum by affinity purification using a column to which immunogen was coupled. The antibody is predominantly of the IgG₁ subclass.**Antibody Specificity:** Specific for the ~60k tyrosine hydroxylase protein.**Quality Control Tests:** Western blots performed on each lot.

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WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation **Packaging:** 100 μ l in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots. **Storage and Stability.** For long term storage – is recommended. Stable at – for at least 1 year. **Shipment:** Domestic - Blue Ice; International – Blue Ice or Dry Ice.

References:

- 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.
- 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.
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