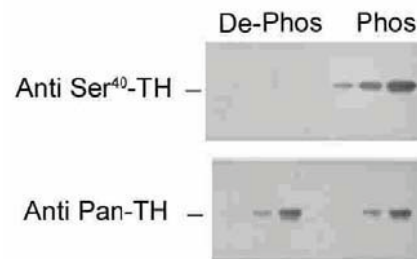
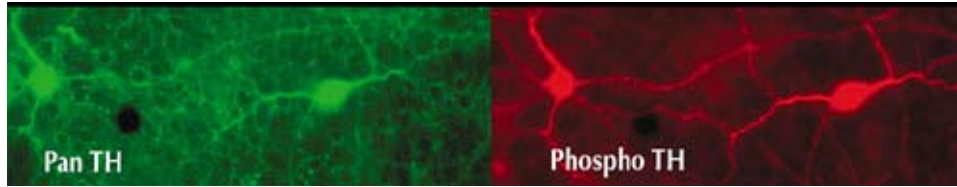


Pel-Freez[®]**Product Specifications****Anti-Phospho-Tyrosine Hydroxylase****Size:** 100 µl**Product Description:** Affinity purified rabbit polyclonal antibody**Applications: WB:** 1:1000**IF** (frozen sections; Witkovsky et al., 2000): 1:1000**IHC** (frozen sections; Witkovsky et al., 2000): 1:1000**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the of rat tyrosine hydroxylase.**Species reactivity:** The antibody has been directly tested for reactivity in Western blots with many mammalian and non-mammalian species.**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; Dunkley et al., 2004). The activity of TH is also regulated by phosphorylation (Haycock et al., 1982; Haycock et al., 1992; Jedynak et al., 2002). Phospho-specific antibodies for the phosphorylation sites on TH can be used to great effect in studying this regulation and in identifying the cells in which TH phosphorylation occurs.**Anti-Phospho Tyrosine Hydroxylase**

Western blot of recombinant phospho- and dephospho-TH showing selective immunolabeling by the phospho-specific antibody of the ~60k TH phosphorylated at . The pan-specific antibody (anti-pan-TH) recognized both the phospho- and dephospho-TH; while most importantly, the phospho-specific antibody (anti- TH) recognized only phospho-TH.

WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation **Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg 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.



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.

Purification Method: Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Antibody Specificity: Specific for the ~60k tyrosine hydroxylase protein phosphorylated at . 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.

Quality Control Tests: Western blots performed on each lot.

References:

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