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PRODUCT DATA SHEET

Product Name: **ANTI-TRYPTOPHAN HYDROXYLASE ANTIBODY**

Product Code: P60401-100

Pack Size: 100 µL

Description: Tryptophan hydroxylase (TPH) catalyzes the first step in the biosynthesis of serotonin and melatonin (Martinez et al., 2001). Thus, expression of TPH can be used as an indicator of the localization of serotonin and melatonin in brain. In mammals, serotonin biosynthesis occurs predominantly in neurons which originate in the Raphe nuclei of the brain, and melatonin synthesis takes place within the pineal gland (Haycock et al., 2002) . Although TPH catalyzes the same reaction within the Raphe nuclei and the pineal gland, TPH activity is rate-limiting for serotonin but not melatonin biosynthesis (Martinez et al., 2001).

Physical State: Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

Storage/Stability: Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

Purification Method: Prepared from sheep serum by affinity purification using a column to which the recombinant protein was coupled.

Shipping Conditions: Domestic: Blue Ice
International: Blue Ice or Dry Ice

Host Species: Sheep (Polyclonal)

***Mr* (kDa):** 55

Immunogen: Recombinant rabbit tryptophan hydroxylase, isolated as inclusion bodies from *E. coli* and purified by preparative SDS-PAGE.

Species Reactivity: The antibody has been directly tested for reactivity in Western blots with human and rat tissue. Based upon the relatively high degree of homology of tryptophan hydroxylase, the antibodies should cross-react with other mammalian species. Does not recognize TPH in rabbit tissues.

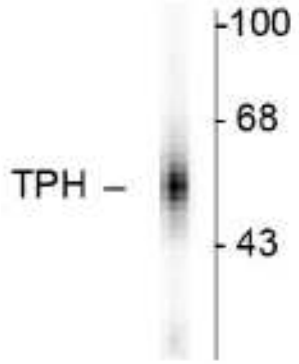
Recommended Antibody Dilutions:

WB, IHC: 1:1000

References:

1) Haycock JW et al. (2002) *J Neurosci Methods* 114:205-212.
2) Martinez A et al. (2001) *Curr Med Chem* 8:1077-1091.

Western Blot
Human dorsal Raphe nucleus showing specifc immunolabeling of the ~55k tryptophan hydroxylase protein.



Application Key: WB – Western Blot IF – Immunofluorescence IHC – Immunohistochemistry IP - Immunoprecipitation