

Anti-Tryptophan Hydroxylase Antibody

Product Data Sheet · P/N 74070 Rev 02 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P60401-100	100 µL
Host Species	Sheep (Polyclonal)
Mr (kDa)	55

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).

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.

Physical State

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

Purification Method

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

Recommended Antibody Dilutions

WB, IHC: 1:1000

Storage/Stability

Stable at -20 °C for at least 1 year.

For long term storage -20 °C is recommended

Shipping Conditions

Domestic: Blue Ice

International: Blue Ice or Dry Ice

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.

For research use or further manufacturing only. Not for use in diagnostic procedures, or for human or animal consumption.