

Tryptophan Hydroxylase Antibody
Affinity purified sheep polyclonal antibody
Catalog # AN1060**Specification**

Tryptophan Hydroxylase Antibody - Product Information

Application	WB
Primary Accession	P17290
Reactivity	Human, Rat
Host	Sheep
Clonality	polyclonal
Calculated MW	55 KDa

Tryptophan Hydroxylase Antibody - Additional Information

Gene ID	100101558
Gene Name	TPH1
Other Names	
Tryptophan 5-hydroxylase 1, Tryptophan 5-monooxygenase 1, TPH1, TPH	

Target/Specificity

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

Dilution

WB~~ 1:1000

Format

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

Antibody Specificity

Specific for the ~55k tryptophan hydroxylase protein.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Tryptophan Hydroxylase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

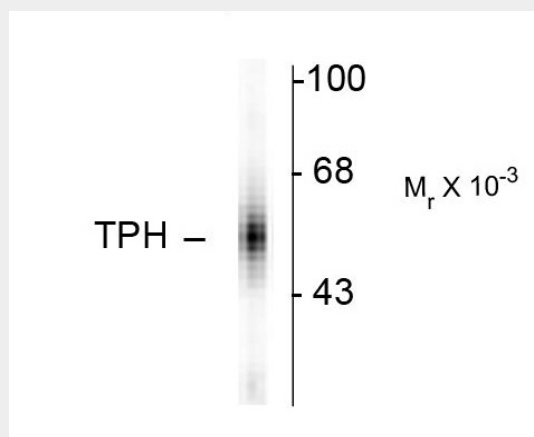
Blue Ice

Tryptophan Hydroxylase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Tryptophan Hydroxylase Antibody - Images



Western blot of human dorsal Raphe nucleus showing specific immunolabeling of the ~55k tryptophan hydroxylase protein.

Tryptophan Hydroxylase Antibody - Background

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).

Tryptophan Hydroxylase Antibody - References

Haycock JW, Kumer SC, Lewis DA, Vrana KE, Stockmeier CA (2002) A monoclonal antibody to tryptophan hydroxylase: applications and identification of the epitope. *J Neurosci Methods* 114:205-212.
Martinez A, Knappskog PM, Haavik J (2001) A structural approach into human tryptophan hydroxylase and its implications for the regulation of serotonin biosynthesis. *Curr Med Chem* 8:1077-1091.