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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.

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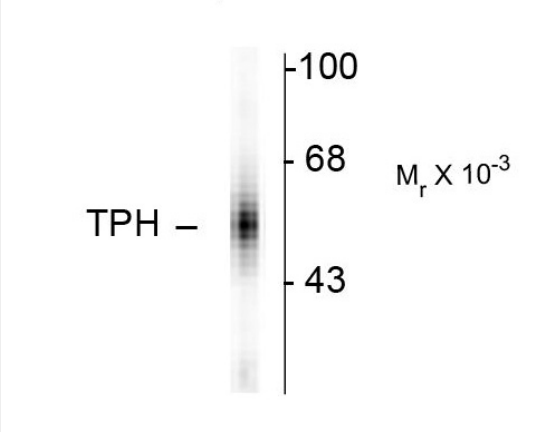
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Tryptophan Hydroxylase Antibody - Images



Western blot of human dorsal Raphe nucleus showing specifc 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.