

## Tryptophan hydroxylase 2

Cat.No. 348 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> not recommended <b>IP:</b> not tested yet <b>ICC:</b> not tested yet <b>IHC:</b> 1 : 100 up to 1 : 500 <b>IHC-P/FFPE:</b> 1 : 500
Clone	269E7
Subtype	IgG2b (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 139 from rat Tryptophanhydroxylase 2 (UniProt Id: Q8CGU9)
Epitop	Epitop: AA 1 to 139 from rat Tryptophanhydroxylase 2 (UniProt Id: Q8CGU9)
Reactivity	Reacts with: rat (Q8CGU9), mouse (Q8CGV2). Other species not tested yet.
Specificity	Specific for tryptophan hydroxylase 2.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**Tryptophan hydroxylase (TPH)** is an enzyme that catalyzes the 5-hydroxylation of tryptophan, which is the first step in the biosynthesis of indoleamines (serotonin and melatonin). Two isoforms TPH 1 and **TPH 2** have been described. TPH 1 occurs mainly in tissues that express serotonin in the periphery (skin, gut, pineal gland). TPH 2 is exclusively expressed in neuronal cell types and is the predominant isoform in the central nervous system. In mammals, serotonin biosynthesis occurs predominantly in neurons which originate in the Raphe nuclei of the brain.

### Selected General References

- Tryptophan hydroxylase-2: an emerging therapeutic target for stress disorders.  
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- A structural approach into human tryptophan hydroxylase and its implications for the regulation of serotonin biosynthesis.  
Martinez A, Knappskog PM, Haavik J  
Current medicinal chemistry (2001) 8(9): 1077-91.
- Regulation of tryptophan hydroxylase activity by a cyclic AMP-dependent mechanism in rat striatum.  
Garber SL, Makman MH  
Brain research (1987) 427(1): 1-10.