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# TPH2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9177C

## Product Information

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| **Application** | WB, IHC-P, FC, E |
| **Primary Accession** | Q8IWU9 |
| **Other Accession** | Q8CGU9, Q8CGV2 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB22900 |
| **Calculated MW** | 56057 |
| **Antigen Region** | 168-193 |

## Additional Information

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| **Gene ID** | 121278 |
| **Other Names** | Tryptophan 5-hydroxylase 2, Neuronal tryptophan hydroxylase, Tryptophan 5-monooxygenase 2, TPH2, NTPH |
| **Target/Specificity** | This TPH2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 168-193 amino acids from the Central region of human TPH2. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | TPH2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | TPH2 |
| **Synonyms** | NTPH |

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| **Function** | Neuron-specific enzyme that catalyzes the conversion of L- tryptophan into 5-hydroxy-L-tryptophan, the rate-limiting step in serotonin production, using Fe(2+) as cofactor and molecular oxygen and tetrahydrobiopterin (BH4) as cosubstrates (PubMed:17905754, PubMed:19319927, PubMed:37608910). Plays a crucial role in regulating mood, anxiety and sleep (By similarity). |
| **Tissue Location** | Brain specific. |

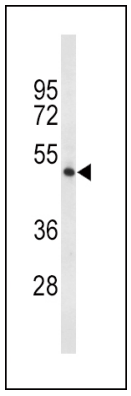
## Background

This protein is a member of the cytidine deaminase gene family. It is one of seven related genes or pseudogenes found in a cluster, thought to result from gene duplication, on chromosome 22. Members of the cluster encode proteins that are structurally and functionally related to the C to U RNA-editing cytidine deaminase APOBEC1. It is thought that the proteins may be RNA editing enzymes and have roles in growth or cell cycle control.

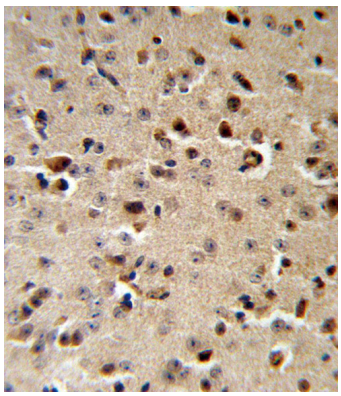
## References

Khatua,A.K., et.al., Virology 400 (1), 68-75 (2010)
Koning,F.A., et.al., J. Virol. 83 (18), 9474-9485 (2009)

## Images

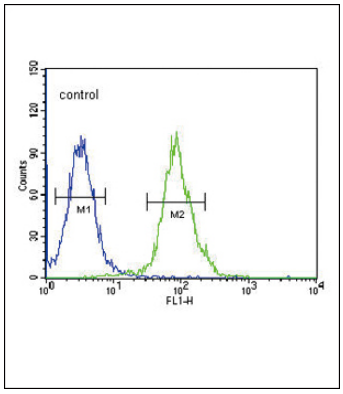



Western blot analysis of TPH2 Antibody (Center) (Cat. #AP9177c) in 293 cell line lysates (35ug/lane). TPH2 (arrow) was detected using the purified Pab.



TPH2 Antibody (Center) (Cat. #AP9177c) IHC analysis in formalin fixed and paraffin embedded mouse brain followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the TPH2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

TPH2 Antibody (Center) (Cat. #AP9177c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.




Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.