OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AP20275PU-M

Tryptophan Hydroxylase (TPH1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	**Western blot:** 1/500-1/1000. **Immunohistochemistry on paraffin sections:** 1/50-1/200. **Immunofluorescence**: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of TPH1 protein. (region surrounding Lys54)
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 51 kDa
Gene Name:	tryptophan hydroxylase 1
Database Link:	Entrez Gene 21990 MouseEntrez Gene 24848 RatEntrez Gene 7166 Human P17752

View online »

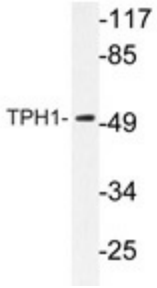
Background: Phenylalanine hydroxylase (PAH), tyrosine hydroxylase (TH) and tryptophan hydroxylase (TPH) comprise a small family of monooxygenases that use tetrahydropterine as a cofactor during the catabolism of aromatic L-amino acids. PAH, TH and TPH all contain catalytic domains with an amino-terminal regulatory domain and a short carboxy-terminal tetramerization domain. Each of these enzymes also contains a single ferrous iron atom, which is bound to two histidines and a glutamate, and is likely to be involved in the formation of the hydroxylating intermediate. TPH is both the first- and rate-limiting-step in the biosynthesis of serotonin in the central nervous system and melatonin in the pineal gland. Alteration of TPH function may be a key factor in the pathology of several neuropsychiatric disorders associated with serotonin, including depression, aggression, alcoholism and schizophrenia. For instance, L-DOPA, which is used as a common therapy for Parkinson's disease (PD) patients, inhibits TPH function which, subsequently, is thought to contribute to the onset of depression in PD patients.

Synonyms: Tryptophan 5-monooxygenase 1, TPRH, TRPH

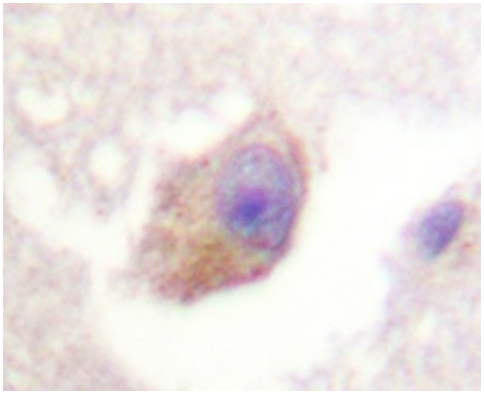
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Tryptophan metabolism

Product images:



Western blot analysis of TPH1 antibody (Cat.-No.: [AP20275PU-N]) in extracts from HepG2 cells.



Immunohistochemistry analyzes of TPH1 antibody (Cat.-No.: [AP20275PU-N]) in paraffin-embedded human brain tissue.