OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AP05678PU-N Polyclonal Antibody to Tryptophan 5-hydroxylase 2 (TPH2) pSer19 - Purified

Alternate names: NTPH, Neuronal tryptophan hydroxylase, Tryptophan 5-monooxygenase 2

Quantity: 0.1 ml

Background: Tryptophan Hydroxylase (TPH) is a rate-limiting enzyme which catalyses the 5-hydroxylation of tryptophan, to form the amino acid 5-hydroxytryptophan (5-HTP), in the first stage of the biosynthesis of the neurotransmitter serotonin (5-hydroxytryptamine/5HT). Mammalian TPH is encoded by two genes: TPH1 expressed in peripheral tissues e.g. skin and gut, and TPH2 primarily expressed in the brain. Studies have demonstrated the regulation/enhancement of TPH activity through phosphorylation by cAMP?dependent protein kinase (PKA) and Ca2+/calmodulin kinase II (CaMKII), the latter of which phosphorylates a Ser19 site within the regulatory domain of TPH2.

Uniprot ID: Q8IWU9

NCBI: NP_775489.2

GeneID: 121278

Host / Isotype: Rabbit / IgG

Immunogen: Synthetic phospeptide corresponding to an amino acid sequence within TPH2, which includes phosphorylated Ser19.

Format: **State:** Liquid purified IgG
Buffer System: 10mM HEPES pH7.5 containing 0.09% Sodium Azide (NaN3), 0.01% Bovine Serum Albumin, 50% Glycerol

Applications: Western Blot: 1:1000; detects a band of approximately 55kDa on recombinant TPH2 incubated in the presence of CAMKII.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody specifically recognises the 55kDa Tryptophan Hydroxylase 2 (TPH2) protein, when phosphorylated at Ser19.
Species: Rat.
Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Caution: (A full Health and Safety assessment is available upon request) This product contains Sodium Azide: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

General Readings:

1. McKinney J, Knappskog PM, Haavik J. Different properties of the central and peripheral forms of human tryptophan hydroxylase. J Neurochem. 2005 Jan;92(2):311-20. PubMed PMID: 15663479.