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Datasheet for 600-401-E49

Tryptophan Hydroxylase phospho S260 Antibody

Overview

Description:	Anti-Tryptophan Hydroxylase pS260 (RABBIT) Antibody - 600-401-E49
Item No.:	600-401-E49
Size:	100 µL
Applications:	WB
Reactivity:	Human, Rat
Host Species:	Rabbit

Product Details

Background:	Tryptophan Hydroxylase pS260 antibody detects Tryptophan Hydroxylase, which catalyzes the 5 -hydroxylation of tryptophan, which is the first step in the biosynthesis of indoleamines (serotonin and melatonin). 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. 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. Serotonin functions mainly as a neurotransmitter, whereas melatonin is the principal hormone secreted by the pineal gland. The activity of TPH is enhanced by phosphorylation by cAMP-dependent protein kinase (PKA) and Ca2+/calmodulin kinase II (CaM K II). CaM K II phosphorylates Ser260 which lies within the regulatory domain of TPH. Anti-THPpS260 Antibody is ideal for investigators involved in Cell Signaling, and Neuroscience research.
Synonyms:	Tryptophan 5-hydroxylase 1, Tryptophan 5-monooxygenase 1, TPH
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Tph1
Reactivity:	Human, Rat
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Tryptophan Hydroxylase pS260 Antibody was produced in rabbit by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser260 of Tryptophan Hydroxylase.
Purity/Specificity:	Anti-Tryptophan Hydroxylase pS260 antibody is directed against rat Tryptophan Hydroxylase at the pS260 redidues. Tryptophan Hydroxylase pS260 antibodies are affinity purified from monospecific antiserum by immunoaffinity purification. Reactivity is expected from the following species based on 100% sequence homology: bovine, canine, chicken, mouse and zebra fish.
Relevant Links:	• UniProtKB - P09810 • GeneID - 24848 • UniProtKB - Q8CGU9.1

Application Details

Tested Applications:	WB
Application Note:	Anti-Tryptophan Hydroxylase pS260 (Rabbit) antibody is tested for use in Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of 55 kDa in size corresponding to tryptophan hydroxylase protein phosphorylated at Ser260 in the appropriate cell lysate or extract. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	1:1000

Formulation

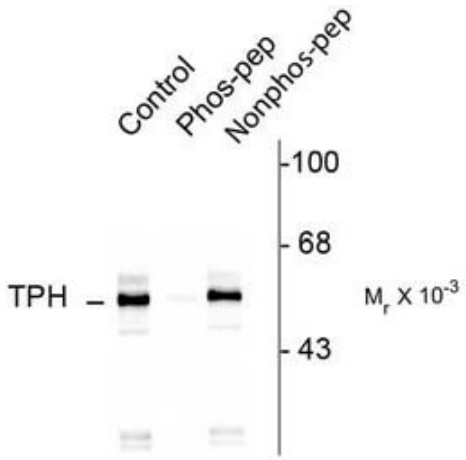
Physical State:	Liquid
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of Rabbit anti-Tryptophan Hydroxylase pS260 antibody. Lane 1: Rat Brainstem Lysate (Control). Lane 2: Phospho-Peptide. Lane 3: Non-Phospho Peptide. Load: 10 µg per lane. Primary antibody: Tryptophan Hydroxylase pS260 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 55 kDa for Tryptophan Hydroxylase pS260. Other band(s): Tryptophan Hydroxylase pS260 splice variants and isoforms.

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