ARG52459
anti-TPH1 phospho (Ser260) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes TPH1 phospho (Ser260)
Tested Reactivity	Hu, Rat
Predict Reactivity	Ms, Bov, Chk, Dog, Zfsh
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	TPH1
Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser260 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	Tryptophan 5-hydroxylase 1; TRPH; EC 1.14.16.4; Tryptophan 5-monooxygenase 1; TPRH

Application Instructions

Application table

Application	Dilution
WB	1:1000

Application Note: Specific for the ~55k tryptophan hydroxylase protein phosphorylated at Ser260.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

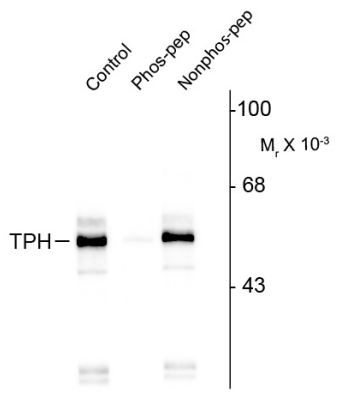
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 24848 Rat GeneID: 7166 Human Swiss-port # P09810 Rat Swiss-port # P17752 Human
Gene Symbol	TPH1
Gene Full Name	tryptophan hydroxylase 1
Background	Tryptophan hydroxylase (TPH) catalyzes the 5-hydroxylation of tryptophan, which is the first step in the biosynthesis of indoleamines (serotonin and melatonin) (Martinez et al., 2001). 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) (Jiang et al., 2000; Johansen et al., 1996). CaM K II phosphorylates Ser260 which lies within the regulatory domain of TPH (Jiang et al., 2000).
Research Area	Cancer antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	51 kDa

Images



ARG52459 anti-TPH1 phospho (Ser260) antibody WB image

Western blot: Rat brainstem lysate showing specific immunolabeling of the ~55k TPH protein phosphorylated at Ser260 stained with ARG52459 anti-TPH1 phospho (Ser260) antibody. The labeling is specifically blocked by the phosphopeptide (Phos-pep) used as antigen. The corresponding non-phosphopeptide (Nonphos-pep) did not block the immunolabeling.