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Phospho-hTH-pS40 Blocking Peptide

Synthetic peptide
Catalog # BP3272a

Specification

Phospho-hTH-pS40 Blocking Peptide - Product Information

Primary Accession P07101

Phospho-hTH-pS40 Blocking Peptide - Additional Information

Gene ID 7054

Other Names
Tyrosine 3-monooxygenase, Tyrosine 3-hydroxylase, TH, TH, TYH

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-hTH-pS40 Blocking Peptide - Protein Information

Name TH (HGNC:11782)

Synonyms TYH

Function
Catalyzes the conversion of L-tyrosine to L- dihydroxyphenylalanine (L-Dopa), the rate-limiting step in the biosynthesis of catecholamines, dopamine, noradrenaline, and adrenaline. Uses tetrahydrobiopterin and molecular oxygen to convert tyrosine to L-Dopa (PubMed:15287903, PubMed:1680128, PubMed:17391063, PubMed:24753243, PubMed:34922205, PubMed:8528210, Ref.18). In addition to tyrosine, is able to catalyze the hydroxylation of phenylalanine and tryptophan with lower specificity (By similarity). Positively regulates the regression of retinal hyaloid vessels during postnatal development (By similarity).

Cellular Location
Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P24529}. Nucleus {ECO:0000250|UniProtKB:P04177} Cell projection, axon {ECO:0000250|UniProtKB:P24529}.

Cytoplasm {ECO:0000250|UniProtKB:P04177}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250|UniProtKB:P04177}. Note=When phosphorylated at Ser-19 shows a nuclear distribution and when phosphorylated at Ser-31 as well at Ser-40 shows a cytosolic distribution (By similarity). Expressed in dopaminergic axons and axon terminals. {ECO:0000250|UniProtKB:P04177}

Tissue Location
Mainly expressed in the brain and adrenal glands.

Phospho-hTH-pS40 Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Phospho-hTH-pS40 Blocking Peptide - Images

Phospho-hTH-pS40 Blocking Peptide - Background

Tyrosine hydroxylase (EC 1.14.16.2) is involved in the conversion of phenylalanine to dopamine. As the rate-limiting enzyme in the synthesis of catecholamines, tyrosine hydroxylase has a key role in the physiology of adrenergic neurons.[supplied by OMIM].

Phospho-hTH-pS40 Blocking Peptide - References

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Parareda, A., et al., Neurosci. Lett. 336(1):29-32 (2003).
Lambooy, L.H., et al., Clin. Cancer Res. 9(2):812-819 (2003).