

TH / Tyrosine Hydroxylase Recombinant Protein | TH recombinant protein

Recombinant Human TH / Tyrosine Hydroxylase Protein (His tag)

CATALOG # AAA22096	HOST Baculovirus-Insect Cells
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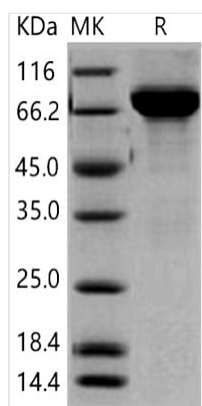
PRODUCT SYNONYMS

TH / Tyrosine Hydroxylase; Recombinant Human TH / Tyrosine Hydroxylase Protein (His tag); DYT14; DYT5b; TYH; TH recombinant protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	> 94% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% Glycerol, pH 8.0, 5% Trehalose, 5% Mannitol, 0.01% Tween-80
Sequence	Pro2-Gly49 7
Sequence Length	497
Tag	N-His
Species	Human
Endotoxin	< 1.0 EU per ug as determined by the LAL method
Reconstitution	We recommend that the vial be centrifuged to opening to bring the contents to the bottom. Do not mix by vortex. It is recommended that sterile water be added to the vial to prepare a stock solution of 0.25 mg/mL. Concentration is measured by UV-Vis.
Preparation and Storage	Lyophilized protein should be stored at < -20°C, Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for TH recombinant protein	Background: Tyrosine hydroxylase (TH) is a rate-limiting enzyme in catecholamine synthesis. Tyrosine hydroxylase activity is modulated by protein-protein interactions with enzymes in the same pathway or the tetrahydrobiopterin pathway, structural proteins considered to be chaperones that mediate the neuron's oxidative state. It is phosphorylated at serine (Ser) residues Ser8, Ser19, Ser31 and Ser40 in vitro. The phosphorylation of tyrosine hydroxylase at Ser19 or Ser8 has no direct effect on tyrosine hydroxylase activity. As tyrosine hydroxylase (TH) catalyses the formation of L-DOPA, the rate-limiting step in the biosynthesis of DA, the Parkinson's disease (PD) can be considered as a TH-deficiency syndrome of the striatum. A direct pathogenetic role of TH has also been suggested, as the enzyme is a source of reactive oxygen species (ROS) in vitro and a target for radical-mediated oxidative injury. Recently, it has been demonstrated that L-DOPA is effectively oxidized by mammalian Tyrosine hydroxylase in vitro, possibly contributing to the cytotoxic effects of DOPA.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	88900503
NCBI GeneID	7054
NCBI Accession #	NP_000351.2
NCBI GenBank Nucleotide #	NM_000360.3
UniProt Accession #	P07101-3; Q0PWM2; Q0PWM3; Q15585; Q15588; Q15589; Q2M3B4; B7ZL70; B7ZL73; P07101
Molecular Weight	57.6 kDa
NCBI Official Full Name	tyrosine 3-monooxygenase isoform b
NCBI Official Synonym Full Names	tyrosine hydroxylase
NCBI Official Symbol	TH
NCBI Official Synonym Symbols	TYH; DYT14; DYT5b
NCBI Protein Information	tyrosine 3-monooxygenase
UniProt Protein Name	Tyrosine 3-monooxygenase
UniProt Gene Name	TH
UniProt Synonym Gene Names	TYH; TH

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.