Recombinant Human TH TYH Protein (Trx Tag)

RPES8140

Product Information

Product SKU:	RPES8140	**Expression Host**:	E.coli	**Size**:	20µg
Tag:	N-Trx	**Reactivity**:	Human	**Accession**:	P07101-3

Additional Information

Calculated MW:	48.4 kDa	**Observed MW:**	50 kDa
Sequence:	Met1-Arg260		

Protein Information

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, and the protein that transfers dopamine into secretory vesicles. 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 sµggested, 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.

Synonyms: -

Endotoxin: < 10 EU/mg of the protein as determined by the LAL method

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.

Purity: > 90% as determined by reducing SDS-PAGE.

Bio-Activity: Not validated for activity

Contact Details | Dublin, Ireland
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Storage: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

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