

# Recombinant Mouse Tyrosine 3-monooxygenase/TH Protein

RPCB1909



## Product Information

|                     |          |                    |       |              |      |
|---------------------|----------|--------------------|-------|--------------|------|
| <b>Product SKU:</b> | RPCB1909 | <b>Gene ID:</b>    | 21823 | <b>Size:</b> | 50µg |
| <b>Tag:</b>         | N-His    | <b>Reactivity:</b> | Mouse |              |      |

## Additional Information

|                         |                          |                   |        |
|-------------------------|--------------------------|-------------------|--------|
| <b>Expression Host:</b> | Baculovirus-Insect Cells | <b>Swissprot:</b> | P24529 |
| <b>Purity:</b>          | > 85% by SDS-PAGE.       |                   |        |

## 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 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.

**Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Mouse Tyrosine 3-monooxygenase/TH Protein, tested reactivity in Baculovirus-Insect Cells and has been validated in SDS-PAGE. 100% guaranteed.

**Endotoxin:** < 1 EU/µg of the protein by LAL method.

Contact Details | Dublin, Ireland

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**Formulation:** Lyophilized from a 0.22 µm filtered solution of 20mM Tris, 500mM NaCl, pH 7.4, 10% gly. Contact us for customized product form or formulation.

**Storage:** Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

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