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# Recombinant Human Tryptophan Hydroxylase 1/TPH1 Protein (His Tag)

Catalog Number: PKSH030968

Note: Centrifuge before opening to ensure complete recovery of vial contents.

## Description

Species Human

**Source** E.coli-derived Human Tryptophan Hydroxylase 1/TPH1 protein Ile 2-Ile 444, with an

N-terminal His

 Mol\_Mass
 52.7 kDa

 Accession
 P17752-1

**Bio-activity** Not validated for activity

## **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** Please contact us for more information.

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.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from sterile 20mM Tris, 200mM NaCl, 10% glycerol, pH 8.0

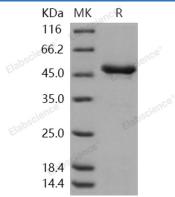
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

## Data



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## Background

## For Research Use Only

Fax: 1-832-243-6017

### Elabscience Bionovation Inc.

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Tryptophan 5-hydroxylase 1, also known as Tryptophan 5-monooxygenase 1, Tryptophan hydroxylase 1, TPH1, TPH and TPRH, is anenzyme which belongs to thebiopterin-dependent aromatic amino acid hydroxylase family. TPH1 contains oneACT domain. Tryptophan hydroxylase catalyzes the biopterin-dependent monooxygenation of tryptophan to 5-hydroxytryptophan (5HT), which is subsequently decarboxylated to form the neurotransmitter serotonin. It is the rate-limiting enzyme in the biosynthesis of serotonin. TPH1 expression is limited to a few specialized tissues: raphe neurons, pinealocytes, mast cells, mononuclear leukocyte s, beta-cells of the islets of Langerhans, and intestinal and pancreatic enterochromaffin cells. The tryptophan hydroxylase 1 (TPH1) gene is also reported to be associated with suicidal behavior. Polymorphisms of TPH1 may assist in identifying a subgroup of mood disorder patients that is at higher risk for suicidal behavior.

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