

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

Catalog No. PKSH030968

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

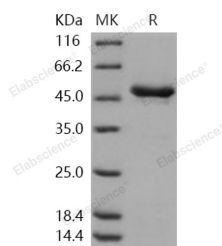
Description

Synonyms	TPRH;TRPH
Species	Human
Expression Host	E.coli
Sequence	Ile 2-Ile 444
Accession	P17752-1
Calculated Molecular Weight	52.7 kDa
Observed molecular weight	48 kDa
Tag	N-His
Bioactivity	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% Tween80 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



> 95 % as determined by reducing SDS-PAGE.

Background

Tryptophan 5-hydroxylase 1, also known as Tryptophan 5-monoxygenase 1, Tryptophan hydroxylase 1, TPH1, TPH and TPRH, is an enzyme which belongs to the bipterin-dependent aromatic amino acid hydroxylase family. TPH1 contains

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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 leukocytes, 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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