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

Catalog Number: PKSH030968

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

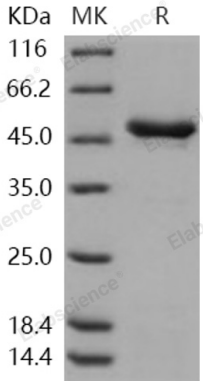
Description

Species	Human
Source	E.coli-derived Human Tryptophan Hydroxylase 1/TPH1 protein Ile 2-Ile 444, with an N-terminal His
Calculated MW	52.7 kDa
Observed MW	48 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	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/ gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile 20 mM Tris, 200 mM 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.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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. 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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