
Recombinant Human Tryptophan Hydroxylase 1 / TPH1 Protein (His tag)**Cat.NO.: TP07131**

3th Edition

Synonyms:TPRH;TRPH

Description: 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 one ACT domain. Tryptophan hydroxylase catalyzes the bipterin-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.

Form:PBS**Molecular Weight:**52.7 kDa**Sequences:**Ile 2-Ile 444**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.