

## 32-8742: Recombinant E. coli Tryptophan Synthase (N-6His)

**Gene :** trpA  
**Gene ID :** 946204  
**Uniprot ID :** P0A877

### Description

Source: E. coli.  
MW :72.5kD.

Recombinant E.coli Tryptophan synthase is produced by our E.coli expression system and the target gene encoding Met1-Ser268&Thr2-Ile397 is expressed with a 6His tag at the N-terminus. Tryptophan synthase is a multienzyme  $\alpha$ 2  $\beta$ 2 complex composed of two protein subunit. Tryptophan synthase catalyzes the last two steps in the synthesis of L-tryptophan (L-Trp). The  $\alpha$ -subunit catalyzes cleavage of 3-indole-d-glycerol 3'-phosphate (IGP) to give indole and D-glyceraldehyde 3'-phosphate (G3P). Indole is then transferred through a 25-Å... hydrophobic tunnel to the beta-subunit. The beta2 subunit contains pyridoxal 5'-phosphate and catalyzes several pyridoxal 5'-phosphate-dependent reactions, including/3-elimination reactions 6 and a thiol-dependent transamination reaction. This enzyme is commonly found in Eubacteria, Archaeobacteria, Protista, Fungi, and Plantae, but is absent from Animalia. As humans do not have tryptophan synthase, this enzyme has been explored as a potential drug target.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Supplied as a 0.2 µm filtered solution of PBS, pH7.4.  
**Storage condition :** Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.  
**Amino Acid :** MERYESLFAQLKERKEGAFVPPVTLGDPGIEQSLKIIDLIEAGADALELGIPIFSDPLADGPTIQNATLRAFAAGVT  
PAQCFEMLALIRQKHPTIPIGLLLMYANLVFNKGIDEFYAQCEKVGVDVSVLVADVPVEESAPFRQAALRHNVAIFI  
CPPNADDDLLRQIASYGRGYTYLLSRAGVTGAENRAALPLNHLVAKLKEYNAAPLQGFGISAPDQVKAIDAG  
AAGAISGSAIVKIIIEQHINEPEKMLAALKVVFVQPMKAATRS&MHHHHHHHTLLNPYFGEFGGMYVPQILMPALRQ  
LEEFVSAQKDPEFQAQFNDLLKNYAGRPTALTKCQNITAGTNTTLYLKRELLHGGGAHKTNQVLGQALLAKR  
MGKTEIIAETGAGQHGVASALASALLGLKCRIMYMGAKDVERQSPNVFRMRLMGAEVIPVHSGSATLKDACNEA  
LRDWSGSYETAHYMLGTAAGPHPYPTIVREFQRMIGEETKAQILEREGRLPDAVIACVGGGSNAIGMFADFINET  
NVGLIGVEPGGHGIETGEHGAPLKHGRVGIYFGMKAPMMQTEDGQIEESYSISAGLDFPSVGPQHAYLNSTGR  
ADYVSITDDEALEAFKTLCLHEGIIPALESSHALAHALKMMRENPDKEQLLVNLSGRGDKDIFTVHDILKARGEI

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.