

# Recombinant E.coli Tryptophan Synthase Protein (His Tag)

Catalog Number:PKSQ050057



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

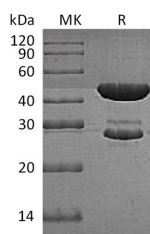
## Description

<b>Synonyms</b>	Tryptophan synthetase;Tryptophan synthase
<b>Species</b>	E.coli
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met1-Ser268&Thr2-Ile397
<b>Accession</b>	P0A877&P0A879
<b>Calculated Molecular Weight</b>	28.7&43.8 kDa
<b>Observed molecular weight</b>	28&40-50 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	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.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of PBS, pH7.4.
<b>Reconstitution</b>	Not Applicable

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

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-? hydrophobic tunnel to the  $\beta$ -subunit. The  $\beta_2$  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.

## For Research Use Only

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