

## Product Data Sheet

Product Name: L-threo-Phenylserine  
Cat. No.: GA23154

### Chemical Properties

Cas. No. 6254-48-4

Formula  $C_9H_{11}NO_3$  M.Wt 181.19

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$ , protect from light

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Protocol

L-threo-Phenylserine [1]

1.  $1.0M$  N-(2-aminophenyl)-3-aminopropane-1-sulfonic acid (TAPS)  $pH=8.5$

2.  $0.5mL$   $10\mu M$  L-threo-Phenylserine  $10nM$  PLP  $100\mu M$  TAPS  $pH=8.5$

3.  $30^{\circ}C$   $10$

4.  $0.5mL$   $1M$  HCl

5.  $0.55mL$   $0.15mL$   $0.1\%$  2,4-dinitrophenylhydrazine  $2M$  HCl  $30^{\circ}C$   $20$   $3mL$   $99\%$   $0.85mL$   $3M$  NaOH  $475nm$  2,4-dinitrophenylhydrazine

$1$

**Caution: Product has not been fully validated for medical applications. For research use only.**  
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com  
Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

### References:

[1] Misono H, Maeda H, Tuda K, et al. Characterization of an inducible phenylserine aldolase from *Pseudomonas putida* 24-1. *Appl Environ Microbiol*. 2005 Aug;71(8):4602-9.

### Background

L-threo-Phenylserine is a  $\beta$ -hydroxy- $\alpha$ -amino acid with two chiral centers. L-threo-Phenylserine can be efficiently synthesized via a transaldolase reaction catalyzed by L-threonine transaldolase, using L-threonine and benzaldehyde as substrates. L-threo-Phenylserine can serve as a substrate for detecting the activity of related enzymes<sup>[1-2]</sup>.

### References:

[1] Misono H, Maeda H, Tuda K, et al. Characterization of an inducible phenylserine aldolase from *Pseudomonas putida* 24-1. *Appl Environ Microbiol*. 2005 Aug;71(8):4602-9.

[2] Waditee-Sirisattha R, Sittipol D, Tanaka Y, et al. Overexpression of serine hydroxymethyltransferase from halotolerant cyanobacterium in *Escherichia coli* results in increased accumulation of choline precursors and enhanced salinity tolerance. *FEMS Microbiol Lett*. 2012 Aug;333(1):46-53.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA