



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

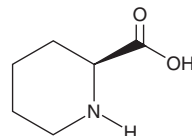
# PRODUCT INFORMATION



## L-Pipecolic Acid

Item No. 36313

**CAS Registry No.:** 3105-95-1  
**Formal Name:** 2S-piperidinecarboxylic acid  
**Synonyms:** (S)-Piperidine-2-Carboxylic Acid,  
L-Homoproline, NSC 93089  
**MF:** C<sub>6</sub>H<sub>11</sub>NO<sub>2</sub>  
**FW:** 129.2  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

L-Pipecolic acid is supplied as a solid. A stock solution may be made by dissolving the L-pipecolic acid in water. We do not recommend storing the aqueous solution for more than one day.

### Description

L-Pipecolic acid is a metabolite of the amino acid L-lysine.<sup>1</sup> L-Pipecolic acid is oxidized to L- $\alpha$ -aminoadipic acid by  $\alpha$ -aminoadipic semialdehyde dehydrogenase ( $\alpha$ -AASA dehydrogenase) and peroxisomal sarcosine oxidase (PSO).<sup>4,5</sup> L-Pipecolic acid inhibits GABA binding in bovine brain homogenate in the presence, but not absence, of hexobarbital or pentobarbital ( $IC_{50}$ s = 0.2 and 2 nM, respectively).<sup>2</sup> Serum levels of L-pipecolic acid are elevated in patients with Zellweger syndrome, a peroxisomal condition characterized by hepatomegaly, abnormal facial features, and cognitive impairments.<sup>3</sup>

### References

1. Chang, Y.F. Pipecolic acid pathway: The major lysine metabolic route in the rat brain. *Biochem. Biophys. Res. Commun.* **69(1)**, 174-180 (1976).
2. Feigenbaum, P. and Chang, Y.F. Pipecolic acid antagonizes barbiturate-enhanced GABA binding to bovine brain membranes. *Brain Res.* **372(1)**, 176-179 (1986).
3. Mihalik, S.J., Moser, H.W., Watkins, P.A., et al. Peroxisomal L-pipecolic acid oxidation is deficient in liver from Zellweger syndrome patients. *Pediatr. Res.* **25(5)**, 548-552 (1989).
4. Chang, Y.F., Ghosh, P., and Rao, V.V. L-pipecolic acid metabolism in human liver: L- $\alpha$ -aminoadipate  $\delta$ -semialdehyde oxidoreductase. *Biochim. Biophys. Acta* **1038(3)**, 300-305 (1990).
5. Dodt, G., Kim, D.G., Reimann, S.A., et al. L-Pipecolic acid oxidase, a human enzyme essential for the degradation of L-pipecolic acid, is most similar to the monomeric sarcosine oxidases. *Biochem. J.* **345 Pt. 3(Pt. 3)**, 487-494 (2000).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/07/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM