

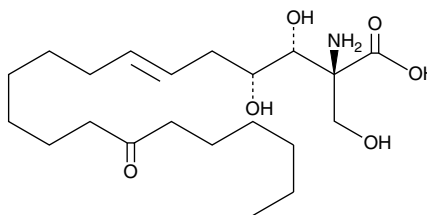
# Product Information



## Myriocin

Item No. 63150

**CAS Registry No.:** 35891-70-4  
**Formal Name:** 2S-amino-3R,4R-dihydroxy-2-(hydroxymethyl)-14-oxo-6E-eicosenoic acid  
**Synonyms:** ISP-1, Thermozymocidin  
**MF:** C<sub>21</sub>H<sub>39</sub>NO<sub>6</sub>  
**FW:** 401.5  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that myriocin be stored as supplied at -20°C. It will be stable for at least two years. Myriocin is supplied as a crystalline solid. A stock solution may be made by dissolving the myriocin in an organic solvent purged with an inert gas. Myriocin is soluble in methanol. The solubility of myriocin in methanol is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Myriocin is an amino fatty acid antibiotic derived from certain thermophilic fungi, in this case *Mycelia sterilia*. It is a potent immunosuppressant having 10- to 100-fold more activity than cyclosporin A.<sup>1</sup> Myriocin is a potent inhibitor of serine palmitoyltransferase (K<sub>i</sub> = 0.28 nM), the enzyme that catalyzes the first step of sphingolipid biosynthesis.<sup>2</sup> It disrupts substratum adhesion of melanoma cells.<sup>3</sup> It also suppresses cell proliferation in the murine cytotoxic T-cell line CTLL-2 (IC<sub>50</sub> = 15 nM) *via* apoptosis.<sup>2,4</sup> Myriocin suppresses replication of the hepatitis C virus (HCV) in a murine model.<sup>5</sup>

### References

1. Fujita, T., Inoue, K., Yamamoto, S., *et al.* Fungal metabolites. Part 11. A potent immunosuppressive activity found in *Isaria sinclairii* metabolite. *J. Antibiotics* **47**, 208-215 (1994).
2. Miyake, Y., Kozutsumi, Y., Nakamura, S., *et al.* Serine palmitoyltransferase is the primary target of a sphingosine-like immunosuppressant, ISP-1/myriocin. *Biochem. Biophys. Res. Commun.* **211**(2), 396-403 (1995).
3. Hidari, K.I.P.J., Ichikawa, S., Fujita, T., *et al.* Complete removal of sphingolipids from the plasma membrane disrupts cell to substratum adhesion of mouse melanoma cells. *J. Biol. Chem.* **271**(24), 14636-14641 (1996).
4. Nakamura, S., Kozutsumi, Y., Sun, Y., *et al.* Dual roles of sphingolipids in signaling of the escape from and onset of apoptosis in a mouse cytotoxic T-cell line, CTLL-2. *J. Biol. Chem.* **271**, 1255-1257 (1996).
5. Umehara, T., Sudoh, M., Yasui, F., *et al.* Serine palmitoyltransferase inhibitor suppresses HCV replication in a mouse model. *Biochem. Biophys. Res. Commun.* **346**, 67-73 (2006).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/63150](http://www.caymanchem.com/catalog/63150)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 12/17/2014

### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

[custserv@caymanchem.com](mailto:custserv@caymanchem.com)

#### Web

[www.caymanchem.com](http://www.caymanchem.com)