

Product Data Sheet

Product Name: Chlamydocin

Cat. No.: GC45717

Chemical Properties

Cas. No. 53342-16-8

SMILES O=C([C@H](CCCCC([C@H]1OC1)=O)NC([C@]2([H])N3CCC2)=O)NC(C)(C)C(N[C@H](CC4=CC=CC=C4)C3=O)=O

Formula C₂₈H₃₈N₄O₆ M.Wt 526.6

Solubility DMSO: soluble, Ethanol: soluble, Methanol: soluble Storage Store at -20°C

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

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

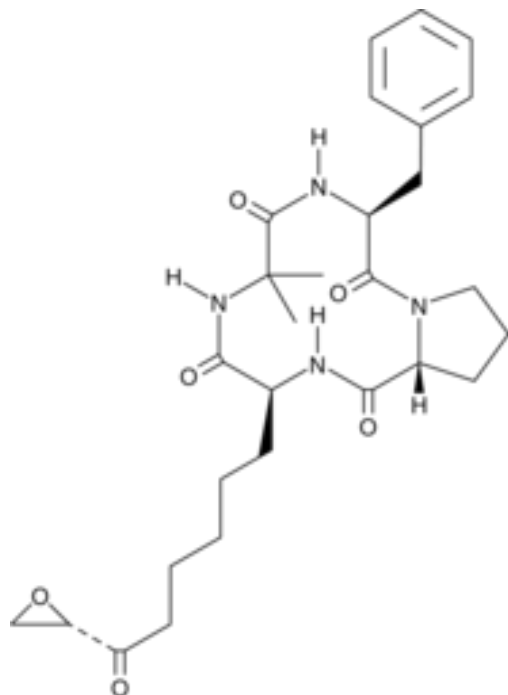
Caution: Product has not been fully validated for medical applications. For research use only.

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

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Structure



Background

Chlamydocin is a histone deacetylase (HDAC) inhibitor that was originally isolated from *D. chlamydosporia* and has anticancer properties.¹ It is selective for HDAC1 over HDAC6 (IC₅₀ = 0.15 and 1,100 nM, respectively).² Chlamydocin increases acetylation of histone H3 and histone H4 in A2780 cells when used at concentrations ranging from 1 to 1,000 nM.¹ It inhibits growth of A2780,

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Malme-3M, MCF-7, HT-29, and HeLa cancer cells (IC₅₀s = 0.36, 45, 5.3, 4.3, and 14 nM, respectively). Chlamydocin increases lifespan by 10% in a P185 mouse allograft model when administered at doses ranging from 20 to 160 mg/kg.³

[1. De Schepper, S., Bruwiere, H., Verhulst, T., et al. Inhibition of histone deacetylases by chlamydocin induces apoptosis and proteasome-mediated degradation of survivin. J. Pharmacol. Exp. Ther. 304(2), 881-888 (2003).|2. Furumai, R., Komatsu, Y., Nishino, N., et al. Potent histone deacetylase inhibitors built from trichostatin A and cyclic tetrapeptide antibiotics including trapoxin. Proc. Natl. Acad. Sci. U.S.A. 98(1), 87-92 (2001).|3. St•helin, H., and Trippmacher, A. Cytostatic activity of chlamydocin, a rapidly inactivated cyclic tetrapeptide. Eur. J. Cancer 10(12), 801-808 (1974).

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