

Product Data Sheet

Product Name: Lavendamycin

Cat. No.: GC91993

Chemical Properties

Cas. No. 81645-09-2

Chemical Name 1-(7-amino-5,8-dihydro-5,8-dioxo-2-quinoliny)-4-methyl-9H-pyrido[3,4-b]indole-3-carboxylic acid

SMILES O=C(C1=NC(C(N=C2C(C(N)=C3)=O)=CC=C2C3=O)=C4NC5=C(C4=C1C)C=CC=C5)O

Formula $C_{22}H_{14}N_4O_4$

M.Wt 398.4

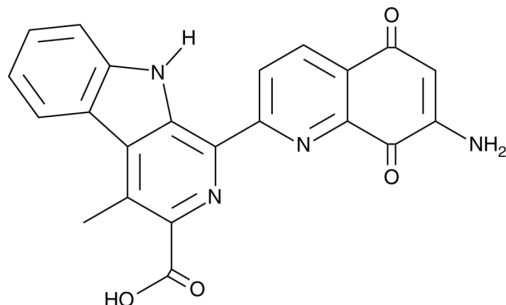
Solubility

Storage -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 size: ship with RT, or blue ice upon request.

Structure



Background

Lavendamycin is a bacterial metabolite that has been found in *S. lavendulae* and has antimicrobial and anticancer activities.^{1,2} It is active against various bacteria, including *S. pneumoniae*, *S. aureus*, *E. coli*, *P. mirabilis*, and *P. vulgaris* (MICs = 0.13-1 µg/ml), and various fungi, including *T. rubrum*, *T. mentagrophytes*, and *M. canis* (MICs = 0.5 µg/ml for all).¹ Lavendamycin is cytotoxic to P388 murine leukemia, MKN45 gastric carcinoma, and WiDr colon adenocarcinoma cells (IC₅₀s = 0.06, 0.1, 0.09 µg/ml, respectively).² *In vivo*, lavendamycin (0.4-6.4 mg/kg) increases median survival time in a P388 murine leukemia model.¹

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

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References:

- [1]. Balitz, D.M., Bush, J.A., Bradner, W.T., et al. Isolation of lavendamycin, a new antibiotic from *Streptomyces lavendulae*. *J. Antibiot. (Tokyo)* 35(3)259-265(1982).
- [2]. Abe, N., Nakakita, Y., Nakamura, T., et al. Novel cytotoxic compounds, oxopropalines from *Streptomyces* sp. G324 producing lavendamycin. I. Taxonomy of the producing organism, fermentation, isolation and biological activities. *J. Antibiot. (Tokyo)* 46(11)1672-1677(1993).

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