

PRODUCT INFORMATION



Sancycline

Item No. 23100

CAS Registry No.: 808-26-4
Formal Name: 4-(dimethylamino)-
1,4S,4aS,5,5aR,6,11,12aS-octahydro-
3,10,12,12a-tetrahydroxy-1,11-
dioxo-2-naphthacencarboxamide

Synonyms: 6-Demethyl-6-deoxytetracycline,
GS 2147

MF: C₂₁H₂₂N₂O₇

FW: 414.4

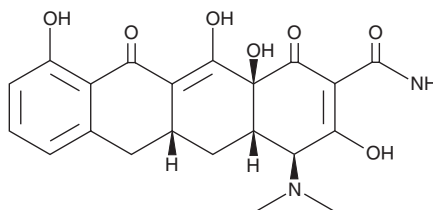
Purity: ≥98%

UV/Vis.: λ_{max}: 220, 269, 350 nm

Supplied as: A crystalline 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

Sancycline is supplied as a crystalline solid. A stock solution may be made by dissolving the sancycline in the solvent of choice. Sancycline is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of sancycline in these solvents is approximately 3 and 0.3 mg/ml, respectively.

Sancycline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sancycline should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Sancycline has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sancycline is a semisynthetic tetracycline antibiotic that is more active than tetracycline (Item No. 14328) against 339 strains of anaerobic bacteria (average MIC_{90s} = 1 and 32 µg/ml, respectively).^{1,2} Sancycline is active against tetracycline-resistant *E. coli*, *S. aureus*, and *E. faecalis* strains with MICs ranging from 0.06 to 1 µg/ml.³ *In vivo*, sancycline is active against *S. aureus* in mice with ED₅₀ values of 0.46 and 0.6 mg/kg for intravenous and subcutaneous administration, respectively.

References

1. McCormick, J.R.D., Jensen, E.R., Miller, P.A., *et al.* The 6-Deoxytetracyclines. Further studies on the relationship between structure and antibacterial activity in the tetracycline series. *J. Am. Chem. Soc.* **82(13)**, 3381-3386 (1960).
2. Wexler, H.M., Molitoris, E., and Finegold, S.M. *In vitro* activities of two new glycylicyclines, N,N-dimethylglyclamido derivatives of minocycline and 6-demethyl-6-deoxytetracycline, against 339 strains of anaerobic bacteria. *Antimicrob. Agents Chemother.* **38(10)**, 2513-2515 (1994).
3. Testa, R.T., Perterson, P.J., Jacobus, N.V., *et al.* *In vitro* and *in vivo* antibacterial activities of the glycylicyclines, a new class of semisynthetic tetracyclines. *Antimicrob. Agents Chemother.* **37(11)**, 2270-2277 (1993).

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, 12/22/2022

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