

Product Data Sheet

Product Name: Tigecycline tetramesylate

Cat. No.: GC37789

Chemical Properties

Cas. No.

SMILES O=S(C)(O)=O.O=S(C)(O)=O.O=S(C)(O)=O.O=C(C(C1=O)=C(O)[C@@H](N(C)C)[C@]2([H])C[C@]3([H])CC4=C(C(C3=C(O)[C@@]21O)=O)C(O)=C(NC(CNC(C)(C)C)=O)C=C4N(C)C)N.O=S(C)(O)=O

Formula C₃₃H₅₅N₅O₂₀S₄ M.Wt 970.07

Solubility DMSO: 100 mg/mL (103.09 mM); Water: 50 mg/mL (51.54 mM) 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.

Structure

Background

Tigecycline is a broad-spectrum glycylicycline antibiotic that binds to the bacterial 30S ribosome, blocking the entry of transfer RNA, which halts protein synthesis and inhibits bacterial growth.¹ It is active against a panel of 1,924 European clinical bacterial isolates including *S. aureus*, *S. epidermidis*, *S. pneumoniae*, *E. faecalis*, *E. faecium*, *E. coli*, *K. pneumoniae*, *P. aeruginosa*, and *P. mirabilis* strains (MICs = <1-32 µg/ml).² *In vivo*, tigecycline (6.25 mg/kg twice daily for 5 days) decreases levels of *C. difficile* cytotoxin activity and spore formation in cecum and colon in a mouse model of *C. difficile* infection.³ Formulations containing tigecycline have been used in the treatment of a variety of bacterial infections.

1. Greer, N.D. Tigecycline (Tygacil): The first in the glycylicycline class of antibiotics Proc. (Bayl. Univ. Med. Cent.) 19(2) 155-161 (2006) 2. Milatovic, D., Schmitz, F.J., Verhoef, J., et al. Activities of the glycylicycline tigecycline (GAR-936) against 1,924 recent European

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

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clinical bacterial isolates Antimicrob. Agents Chemother. 47(1)400-404(2003) 3. Theriot, C.M., Schumacher, C.A., Bassis, C.M., et al. Effects of tigecycline and vancomycin administration on established *Clostridium difficile* infection Antimicrob. Agents Chemother. 59(3)1596-1604(2015)

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