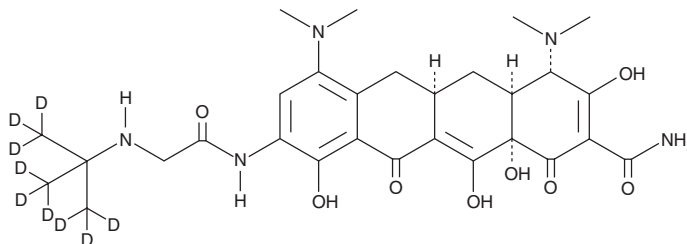


PRODUCT INFORMATION



Tigecycline-d₉ Item No. 25414

CAS Registry No.: 2699607-86-6
Formal Name: 4,7-bis(dimethylamino)-3,10,12,12a-tetrahydroxy-9-(2-((2-(methyl-d₃)propan-2-yl)-1,1,1,3,3,3-d₆)amino)acetamido)-1,11-dioxo-1,4S,4aS,5,5aR,6,11,12a5-octahydrotetracene-2-carboxamide
MF: C₂₉H₃₀D₉N₅O₈
FW: 594.7
Chemical Purity: ≥95% (Tigecycline)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
Supplied as: A 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

Tigecycline-d₉ is intended for use as an internal standard for the quantification of tigecycline (Item No. 15026) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Tigecycline-d₉ is supplied as a solid. A stock solution may be made by dissolving the tigecycline-d₉ in the solvent of choice, which should be purged with an inert gas. Tigecycline-d₉ is slightly soluble in methanol and DMSO.

Description

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.

References

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 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).

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.

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