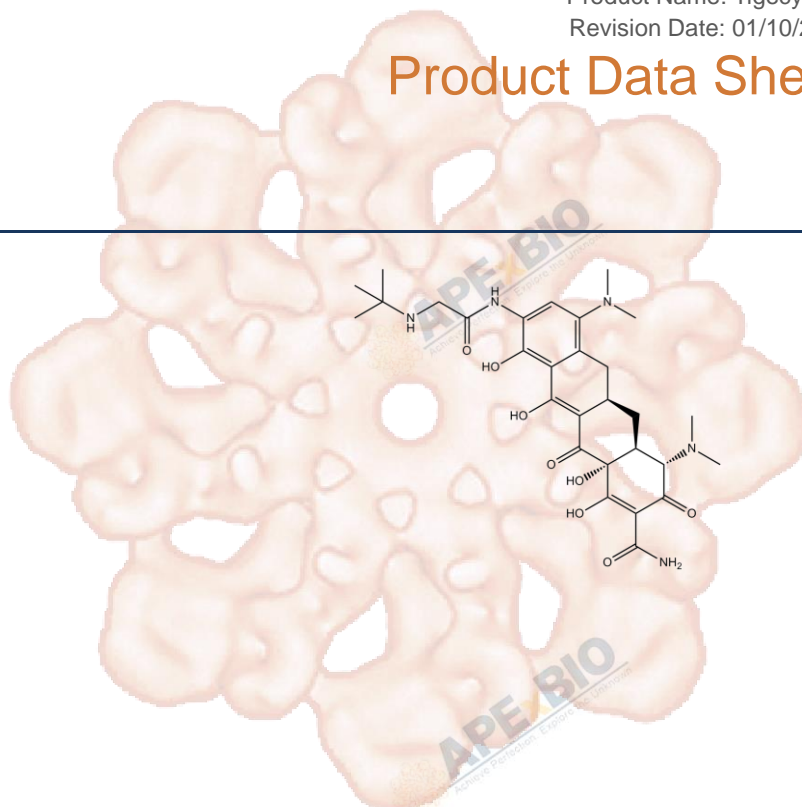


Product Data Sheet

Tigecycline

Cat. No.:	A5226
CAS No.:	220620-09-7
Formula:	C ₂₉ H ₃₉ N ₅ O ₈
M.Wt:	585.65
Synonyms:	
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20°C



Solvent & Solubility

≥29.3 mg/mL in DMSO; insoluble in EtOH; ≥32.47 mg/mL in H₂O with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	1.7075 mL	8.5375 mL	17.0750 mL
	5 mM	0.3415 mL	1.7075 mL	3.4150 mL
	10 mM	0.1708 mL	0.8538 mL	1.7075 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Glycylcycline antibiotic

IC₅₀ & Target

In Vitro

Cell Viability Assay

Preparation method:

The solubility of this compound in DMSO is > 29.3 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

Reacting conditions:

18 ~ 22 hrs

Applications:

Tigecycline exhibited similar in vitro activities against the GISA,

	Methicillin-resistant and Methicillin-susceptible staphylococcal strains (MIC90 = 0.5 ~ 1 µg/mL). Besides, Tigecycline also demonstrated good in vitro activities for Vancomycin-susceptible and -resistant strains of Enterococcus faecalis and Enterococcus faecium, with MIC90 ranging from 0.12 ~ 0.5 µg/mL.	
In Vivo	Animal experiment	
	Animal models:	An intraperitoneal systemic murine infection model
	Dosage form:	0.2 mL, 0.01 M; i.v; a single dose
	Applications:	For infection caused by a MSSA strain, Daptomycin and Tigecycline showed similar in vivo efficacy with the ED50 values of 0.12 and 0.24 mg/kg, respectively. Besides, Tigecycline and Daptomycin also exhibited similar in vivo efficacy against infection caused by a MRSA strain, with the ED50 values of 0.72 and 0.87 mg/kg, respectively. However, Tigecycline was most effective against an infection caused by a GISA strain, with an ED50 values of 1.9 mg/kg, 3 times more efficacious than Daptomycin (ED50 = 6.1 mg/kg).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Martin TD, Cook DR, et al. "A Role for Mitochondrial Translation in Promotion of Viability in K-Ras Mutant Cells." CellRep. 2017 Jul 11;20(2):427-438.PMID:28700943

See more customer validations on www.apexbt.com.

References

[1]. Petersen P J, Bradford P A, Weiss W J, et al. In vitro and in vivo activities of tigecycline (GAR-936), daptomycin, and comparative antimicrobial agents against glycopeptide-intermediate Staphylococcus aureus and other resistant gram-positive pathogens[J]. Antimicrobial agents and chemotherapy, 2002, 46(8): 2595-2601.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

