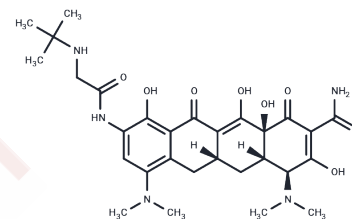


Tigecycline

Chemical Properties

CAS No. :	220620-09-7
Formula:	C ₂₉ H ₃₉ N ₅ O ₈
Molecular Weight:	585.65
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Tigecycline (GAR-936) is a broad-spectrum glycylicycline antibiotic derived from tetracycline that binds to the 30S ribosomal subunit, disrupting the binding of aminoacyl-tRNA to the mRNA-ribosome complex.
Targets(IC50)	ribosome, Antibacterial, Antibiotic, Autophagy
In vitro	Tigecycline inhibited methicillin-resistant Staphylococcus aureus in a rabbit model of osteomyelitis. Tigecycline was shown to be resistant to Legionella pneumophila in guinea pigs with Legionella pneumophila pneumonia.
In vivo	Tigecycline, a substrate for the tetracycline-specific efflux pump, exhibits antibacterial activity against a wide range of aerobic and anaerobic bacteria. For enterococci, staphylococci and streptococci (MIC=0.06-0.25 mg / L), Tigecycline was able to produce bacteriostatic effects.

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 93 mg/mL (158.8 mM), Sonication is recommended. H ₂ O: 92 mg/mL (157.09 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.63 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7075 mL	8.5375 mL	17.075 mL
5 mM	0.3415 mL	1.7075 mL	3.415 mL
10 mM	0.1708 mL	0.8538 mL	1.7075 mL
50 mM	0.0342 mL	0.1708 mL	0.3415 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Livermore DM, et al. J Antimicrob Chemother, 2005, 56(4), 611-614.

Stein GE, et al. Clin Infect Dis, 2006, 43(4), 518-524.

Petersen PJ, et al. Antimicrob Agents Chemother, 2002, 46(8), 2595-2601.

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