Data Sheet (Cat.No.T1569)



Tigecycline

Chemical Properties

CAS No.: 220620-09-7

Formula: C29H39N5O8

Molecular Weight: 585.65

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Tigecycline (GAR-936) is a broad-spectrum glycylcycline 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.		
	H2O: 92 mg/mL (157.09 mM), Sonication is recommended.		
	(< 1 mg/ml refers to the product slightly soluble or insoluble)		

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.

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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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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481

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