
Product Data Sheet

Product Name: Tigemonam

Cat. No.: GC32360

Chemical Properties

Cas. No. 102507-71-1

SMILES OC(CO/N=C(C1=CSC(N)=N1)\C(N[C@H]2C(C)(N(OS(=O)(O)=O)C2=O)C)=O)=OFormula C₁₂H₁₅N₅O₉S₂ M.Wt 437.41

Solubility Soluble in DMSO 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 size: ship with RT , or blue ice upon request.

Structure **Background**

Tigemonam is a monobactam, with potent activity against Gram-negative aerobic bacterial pathogens.

Tigemonam (0.25 mg/L) inhibits 90% of Escherichia coli, Klebsiella spp., Proteus spp., Salmonella spp., Haemophilus influenzae and Branhamella catarrhalis tested. The MIC₉₀ for Enterobacter spp. is 16 mg/L and for Citrobacter 4 mg/L. Pseudomonas aeruginosa is resistant to tigemonam but susceptible to aztreonam. Tigemonam shows minimal inoculum dependence, between 10² and 10⁶ cfu per spot[1].

Tigemonam shows potent activities against Escherichia coli SC 8294, E. coli SC 12199, Salmonella schottmulleri SC 3850, Proteus mirabilis SC 9575, Providencia rettgeri SC 8217, Klebsiella pneumoniae SC 12216, Serratia marcescens SC 9782, Enterobacter cloacae SC 11078, Haemophilus influenzae SC 10556, with ED₅₀ of 1.4 mg/kg, 1.5 mg/kg, 0.7 mg/kg, 0.3 mg/kg, 0.2 mg/kg, 0.9 mg/kg, 0.5 mg/kg, 3.9 mg/kg and 1.8 mg/kg in mice[2].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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[1]. Rylander M, et al. Comparative in-vitro activity of tigemonam, a new monobactam. J Antimicrob Chemother. 1988 Sep;22(3):307-13. [2]. Clark JM, et al. In vivo evaluation of tigemonam, a novel oral monobactam. Antimicrob Agents Chemother. 1987 Feb;31(2):226-9.

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