Product Data Sheet

Product Name: BO3482
Cat. No.: GC32349

Chemical Properties

Cas. No.	198013-53-5		
SMILES	OC(C1=C(SC(N(C)CCO)=S)[C@H](C)[C@@]([C@@]2([H])[C@H](O)C)([H])N1C2=O)=O.[Na]		
Formula	$C_{14}H_{20}N_2NaO_5S_2$	M.Wt	383.44
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	BO3482		

Protocol

Animal experiment:

In the thigh infection model, four immunosuppressed mice are used per group. An overnight culture of MRSA BB6294 in tryptic soy broth is washed and resuspended in fresh tryptic soy broth. Of this suspension, 0.1 mL is injected into the right thighs of slightly anesthetized mice. The mice receive two doses of drug subcutaneously 2 and 6 h after injection of the test organisms by the following treatment regimens: 10, 20,or 40 mg of BO3482 with 40 mg of cilastatin per kg per dose; 10, 20, or 40 mg of vancomycin per kg per dose; or 40 mg of imipenem with 40 mg of cilastatin per kg per dose. Four hours after the last treatment, the thigh muscles are removed and immediately homogenized in ice-cold 0.9% NaCl with a tissue homogenizer[2].

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References:

[1]. Adachi Y, et al. In vitro evaluation of BO-3482, a novel dithiocarbamate carbapenem with activity against methicillin-resistant staphylococci. Antimicrob Agents Chemother. 1997 Oct;41(10):2282-5.
[2]. Nagano R, et al. Therapeutic efficacy of BO-3482, a novel dithiocarbamate carbapenem, in mice infected with methicillin-resistant Staphylococcus aureus. Antimicrob Agents Chemother. 1997 Oct;41(10):2278-81.

Background

BO3482 has Antimicrobial activity and can inhibit the growth of methicillin-resistant Staphylococci (MRS) with an MIC90 of 6.25 mg/mL.

In the thigh infection model with a homogeneous MRSA strain, the bacterial counts in

tissues treated with BO3482-cilastatin are significantly reduced in a dose-dependent manner compare with the counts in those treat with vancomycin and imipenem-cilastatin[1].

[1]. Adachi Y, et al. In vitro evaluation of BO-3482, a novel dithiocarbamate carbapenem with activity against methicillin-resistant staphylococci. Antimicrob Agents Chemother. 1997 Oct;41(10):2282-5. [2]. Nagano R, et al. Therapeutic efficacy of BO-3482, a novel dithiocarbamate carbapenem, in mice infected with methicillin-resistant Staphylococcus aureus. Antimicrob Agents Chemother. 1997 Oct;41(10):2278-81.