Product Data Sheet

Product Name: Leucomycin A1
Cat. No.: GC10414

Chemical Properties

Cas. No.	16846-34-7		
Chemical Name	4^B-(3-methylbutanoate) leucomycin V		
SMILES	O=C1C[C@H]([C@@H]([C@H]([C@H](C[C@H]([C@H](/C=C/C=C/C[C@H](O1)C)O)C)CC=O)O[C@@]2(O[C@@H]([C@H]([C@@H]([C@H]2O)N(C)C)O[C@]3(C[C@@](O)([C@H]([C@@H](O3)C)OC(CC(C)C)=O)C)[H])C)[H])OC)O		
Formula	$C_{40}H_{67}NO_{14}$	M.Wt	786.0
Solubility	DMF: Soluble,DMSO: Soluble,Ethanol: Soluble,Methanol: Soluble	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	Leucomycin A1		

Background

Leucomycin A1, a major metabolite extracted from the leucomycin complex, is a major macrocyclic lactone antibiotics produced by Streptomyces kitasatoensis.

Leucomycin A1 is one of the more potent members of leucomycin complex. Leucomycin complex (kitasamycin) is effective against a wide spectrum of pathogens, such as Gram-positive bacteria, Gram-negative cocci, mycoplasma, and Leptospira. Leucomycin complex has been used as an animal health product for control of Gram positive bacteria, Gram negative cocci, mycoplasma, and Leptospira. Until now, little is known about the activity of individual analogues within the complex. At a concentration of 1.56μg/ml, kitasamycin inhibited all isolates of Diplococcus pneumonia [2]. Each

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

component of leucomycins potently inhibited the growth of Gram-positive bacteria and showed not so strong activity against the Gram-negative bacteria. Each component showed the same tendency towards the antibacterial spectrum [3].

References:

[1] Hata T, Sano Y, Ohki N, et al. Leucomycin, a new antibiotic[J]. The Journal of antibiotics, 1953, 6(2): 87-89.
[2] Balducci Y, BODEY G P. In vitro activity of kitasamycin against gram-positive cocci[J]. The Journal of antibiotics, 1974, 27(7): 516-519.
[3] Omura S, Katagiri M, Umezawa I, et al. Structure-biological activities relationships among leucomycins and their derivatives[J]. The Journal of antibiotics, 1968, 21(9): 532-538.

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