

Product Data Sheet

Product Name: Sandramycin

Cat. No.: GC13794

Chemical Properties

Cas. No. 100940-65-6

Chemical Name N-[(3-hydroxy-2-quinolinyl)carbonyl]-D-seryl-(2S)-2-piperidinecarbonylglycyl-N-methylglycyl-N-methyl-L-valine, bimol. (5→1'3),(5'→13)-dilactone

SMILES O=C([C@@H](COC([C@@H](N(C(CN(C(CNC([C@@](CCCC1([H])N1C2=O)=O)=O)C)=O)C(C)C)=O)NC(C3=NC(C=CC=C4)=C4C=C3O)=O)N(CCCC5[C@]5([H])C(NCC(N(CC(N([C@H](C(OC[C@H]2NC(C6=NC(C=CC=C7)=C7C=C6O)=O)=O)C(C)C)C)=O)C)=O)=O

Formula C₆₀H₇₆N₁₂O₁₆

M.Wt 1221.3

Solubility DMF: soluble, DMSO: soluble, Ethanol: soluble, Methanol: soluble Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure

Background

Sandramycin is a cyclic depsipeptide antibiotic that was first isolated from cultured broth of a *Nocardioides* sp [1].

Sandramycin is an antitumor antibiotic. Sandramycin was closely related to the cyclic depsipeptides luzopeptins A, B, C and D. Sandramycin exhibited strong inhibition to the Gram-positive organisms *Bacillus subtilis*, *Staphylococcus aureus* and *Streptococcus faecalis*. Its antimicrobial activity paralleled that which was observed for echinomycin and luzopeptin A [1]. Sandramycin was also a bifunctional DNA intercalator that strongly binds DNA and forms crosslinks between DNA molecules [2].

In transplantable mouse leukemia P388, Sandramycin was moderately active with values comparable to those for luzopeptin A. Injection of 2 mg/kg showed the best increase in life span over the controls (61%) [1].

References:

[1]. Matson JA, Bush JA. Sandramycin, a novel antitumor antibiotic produced by a *Nocardioides* sp. Production, isolation, characterization and biological properties. *J Antibiot* (Tokyo). 1989 Dec;42(12):1763-7.

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

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[2]. Boger DL, Saionz KW. DNA binding properties of key sandramycin analogues: systematic examination of the intercalation chromophore. Bioorg Med Chem. 1999 Feb;7(2):315-21.

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