

Product Data Sheet

Product Name: Antimycin A4

Cat. No.: GC42820

Chemical Properties

Cas. No. 27220-59-3

SMILES CCCC(O[C@@H]([C@@H]1C)[C@H](C(O[C@@H]([C@@H](C(O1)=O)NC(C(C=CC=C2NC([H])=O)=C2O)=O)C)=O)CCCC)=O

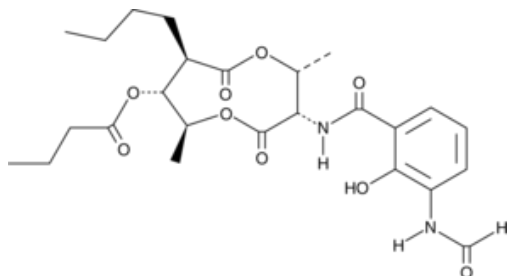
Formula C₂₅H₃₄N₂O₉ M.Wt 506.6

Solubility DMF: Soluble, DMSO: Soluble, Ethanol: Soluble, Methanol: Soluble
 Storage Store at -20°C, protect from light

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

Antimycin A4 is an active component of the antimycin A antibiotic complex that is more polar than antimycin A1, antimycin A2, and antimycin A3. Antimycin A4 inhibits ATP-citrate lyase with a K_i value of 64.8 μ M. The antimycin A complex is a mixture of antimycins A1, A2, A3, and A4 that demonstrates antifungal, insecticidal, nematocidal, and piscicidal properties. It blocks mitochondrial respiration and can deplete cellular levels of ATP via inhibition of complex III of the mitochondrial electron transport chain (ETC). Antimycin A prevents the transfer of electrons between the b-cytochromes and ubiquinone at the Q(inner) site of complex III. This results in the stabilization of the ubisemiquinone radical at the Q(outer) site of complex III, leading to increased production of

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

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superoxide. Antimycin A is widely used in research to shunt electron flow through the ETC to study the chemical details of oxygen respiration. Additionally, antimycin A has been shown to inhibit Bcl-2 and Bcl-xL proteins, inducing apoptosis.

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