
Product Data Sheet

Product Name: Antimycin A2

Cat. No.: GC18621

Chemical Properties

Cas. No. 27220-57-1

Chemical Name (2R,3S,6S,7R,8R)-3-(3-formamido-2-hydroxybenzamido)-8-hexyl-2,6-dimethyl-4,9-dioxo-1,5-dioxonan-7-yl butyrate

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)CCCCC)=OFormula C₂₇H₃₈N₂O₉ M.Wt 534.6Solubility 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 °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 A2 is an active component of the antimycin A antibiotic complex. Antimycin A2 inhibits electron transport and exhibits antibiotic properties. It also inhibits ATP-citrate lyase with a K_i value of 4.2 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 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.

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

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