

Poster Session I

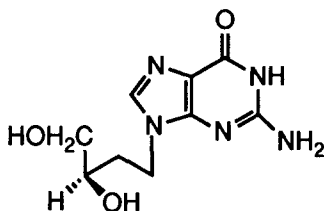
Retroviruses

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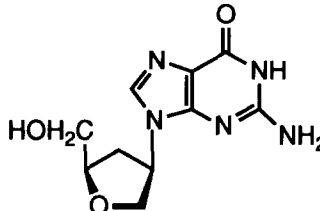
Synthesis and Antiviral Properties of Carbocyclic 3'-Oxa-2',3'-dideoxyguanosine.

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The antiviral properties of 9-(3,4-dihydroxybutyl)guanine have been attributed¹ to inhibition of viral DNA synthesis arising as the result of conversion to its triphosphate derivative in a virally induced thymidine kinase initiated process common to virally infected cell activation of antiviral prodrugs. Evidence has been presented² that it is the R-enantiomer **1** that is the stereoisomer of 9-(3,4-dihydroxy-butyl)guanine that leads to the antiviral triphosphate. To study the antiviral potential of a rotationally restricted form of **1**, compound **2** has been prepared and evaluated. The results of this endeavor will be reported. (This work has been supported by NO1-AI-72645 from the DHHS.)



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¹Hodge, R.A.V.; Perkins, R.M. *Antimicrob. Agents Chemother.* **1989**, *33*, 223-229. ²Ericson, A.-C.; Larsson, A.; Aoki, F.Y.; Yisak, W.-A.; Johansson, N.-G.; Öberg, B.; Datema, R. *Antimicrob. Agents Chemother.* **1985**, *27*, 753-759.