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5¢-O-b,g-Methylenetriphosphate Derivatives of Nucleoside

Yousef Ahmadibeni
University of Rhode Island

Chandravanu Dash
Columbus State University

S. F. J. Le Grice
Meharry Medical College

Keykavous Parang
Chapman University, parang@chapman.edu

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5¢-O-b,g-Methylenetriphosphate Derivatives of Nucleoside

Y. AHMADIBENI, C. DASH, S. F. J. LE GRICE, K. PARANG* (THE UNIVERSITY OF RHODE ISLAND, KINGSTON, COLUMBUS STATE UNIVERSITY, MEHARRY MEDICAL COLLEGE, NASHVILLE AND NATIONAL INSTITUTE OF HEALTH, FREDERICK, USA)

Solid-Phase Synthesis of 5′-*O*-β,γ-Methylenetriphosphate Derivatives of Nucleosides and Evaluation of Their Inhibitory Activity Against HIV-1 Reverse Transcriptase

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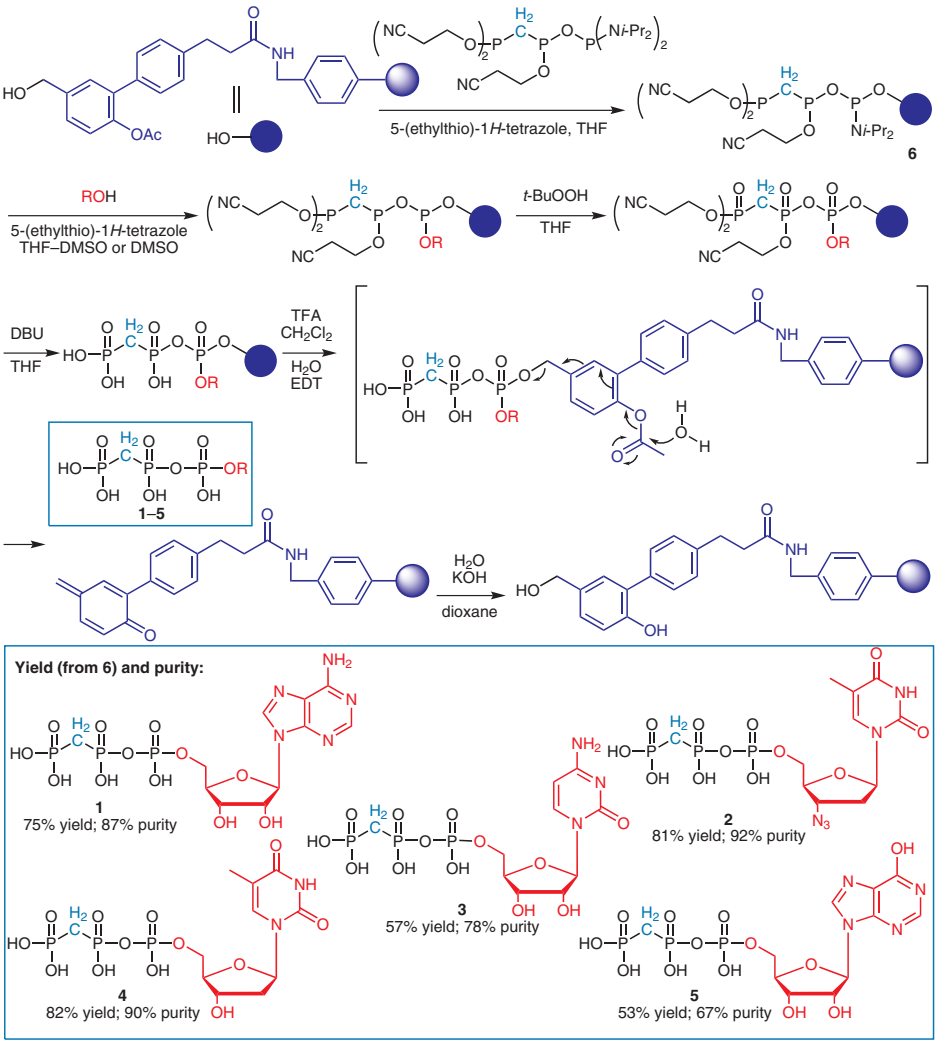
5′-*O*-β,γ-Methylenetriphosphate Derivatives of Nucleosides



Significance: The solid-phase synthesis of 5′-*O*-β,γ-methylenetriphosphates of nucleosides **1**–**5** is described, where a 4-acetoxy-3-arylbenzyloxy group was used as a linker.

Comment: It was found that cytidine triphosphate **3** inhibited completely RNase H activity of HIV-1 reverse transcriptase at 700 μM.

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Category

Polymer-Supported Synthesis

Key words

5′-*O*-β,γ-methylene-triphosphates

HIV-1 inhibitory activity

phosphate transfer

isosteric P–CH_2–P bond

RNase H activity

HIV-1 reverse transcriptase

polystyrene resin-bound linkers

4-acetoxybenzyl alcohols