A Convenient Synthesis of \( N,N'\)-dibenzyl-2,4-diaminopyrimidine-2′-deoxyribonucleoside and 1-Methyl-2′-Deoxypseudoisocytidine

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Abstract

The syntheses of \( N,N'\)-dibenzyl-2,4-diaminopyrimidine-2′-deoxyribonucleoside and 1-methyl-2′-deoxypseudoisocytidine via Heck coupling are described. A survey of the attempts to use the Heck coupling to synthesize \( N,N'\)-dibenzyl-2,4-diaminopyrimidine-2′-deoxyribonucleoside is provided, indicating a remarkable diversity in outcome depending on the specific heterocyclic

Keywords

- Synthesis,
- Heck coupling,
- hydrogen bonding patterns,
- synthetic biology,
- artificial genetic systems