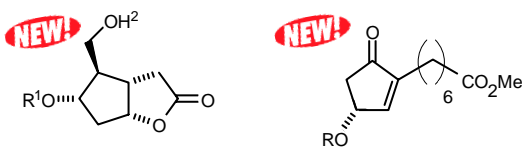
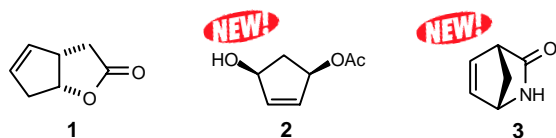


Building Blocks for Carbocyclic Nucleosides and Prostaglandins

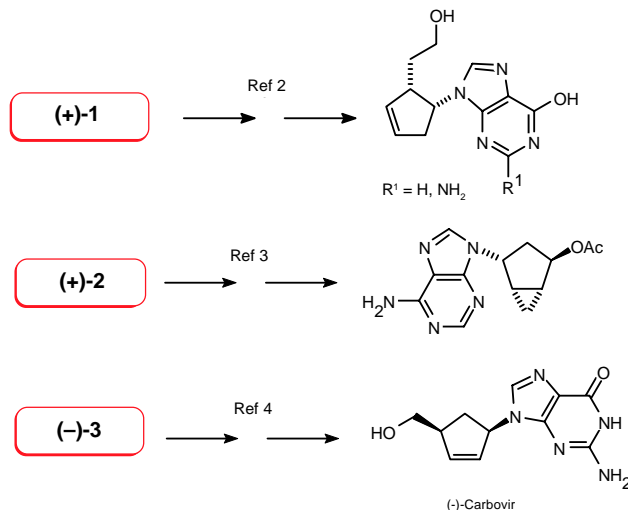


- 4, R¹ = R² = H
 5, R¹ = 4-phenylbenzoate; R² = H
 6, R¹ = COPh; R² = H
 7, R¹ = THP; R² = Si(Me)₂t-Bu
 8, R = H
 9, R = SiMe₂t-Bu

- 27,992-7 (1*R*,5*S*)-(+)-2-Oxabicyclo[3.3.0]oct-6-en-3-one, 99% [(+)-1] 250mg; 1g
- 44,847-8 (1*S*,5*R*)-(-)-2-Oxabicyclo[3.3.0]oct-6-en-3-one, 99% [(-)-1] 100mg; 500mg
- 44,604-1 (1*R*,3*S*)-(+)-*cis*-4-Cyclopentene-1,3-diol 1-acetate, 99+% [(+)-2] 50mg; 250mg; 1g
- 44,128-7 (1*S*)-(+)-2-Azabicyclo[2.2.1]hept-5-en-3-one, 98+% [(+)-3] 1g; 5g
- 44,127-9 (1*R*)-(-)-2-Azabicyclo[2.2.1]hept-5-en-3-one, 98+% [(-)-3] 1g; 5g
- 45,321-8 (3*aS*,4*R*,5*S*,6*aR*)-(+)-Hexahydro-5-hydroxy-4-(hydroxymethyl)-2*H*-cyclopenta[*b*]furan-2-one, 98% [(+)-4] 250mg; 1g
- 34,157-6 (3*aR*,4*S*,5*R*,6*aS*)-(-)-Hexahydro-5-hydroxy-4-(hydroxymethyl)-2*H*-cyclopenta[*b*]furan-2-one, 98% [(-)-4] 250mg; 1g
- 45,322-6 (+)-Corey lactone, 4-phenylbenzoate alcohol, 99% [(+)-5] 250mg; 1g
- 24,926-2 (-)-Corey lactone, 4-phenylbenzoate alcohol, 99% [(-)-5] 250mg; 1g
- 46,568-2 (3*aR*,4*S*,5*R*,6*aS*)-(-)-5-(Benzoyloxy)hexahydro-4-(hydroxymethyl)-2*H*-cyclopenta[*b*]furan-2-one [(-)-6] 100mg; 500mg
- 46,555-0 (3*aR*,4*S*,5*R*,6*aS*)-(-)-4-(*tert*-Butyldimethylsilyloxy-methyl)hexahydro-5-(tetrahydro-2*H*-pyran-2-yloxy)-2*H*-cyclopenta[*b*]furan-2-one [(-)-7] 100mg; 500mg
- 46,398-1 Methyl (3*R*)-(+)-hydroxy-5-oxo-1-cyclopentene-1-heptanoate, 98% [(+)-8] 100mg; 500mg
- 46,428-4 Methyl (3*R*)-(+)-(*tert*-butyldimethylsilyloxy)-5-oxo-1-cyclopentene-1-heptanoate, 95% [(+)-9] 100mg; 500mg

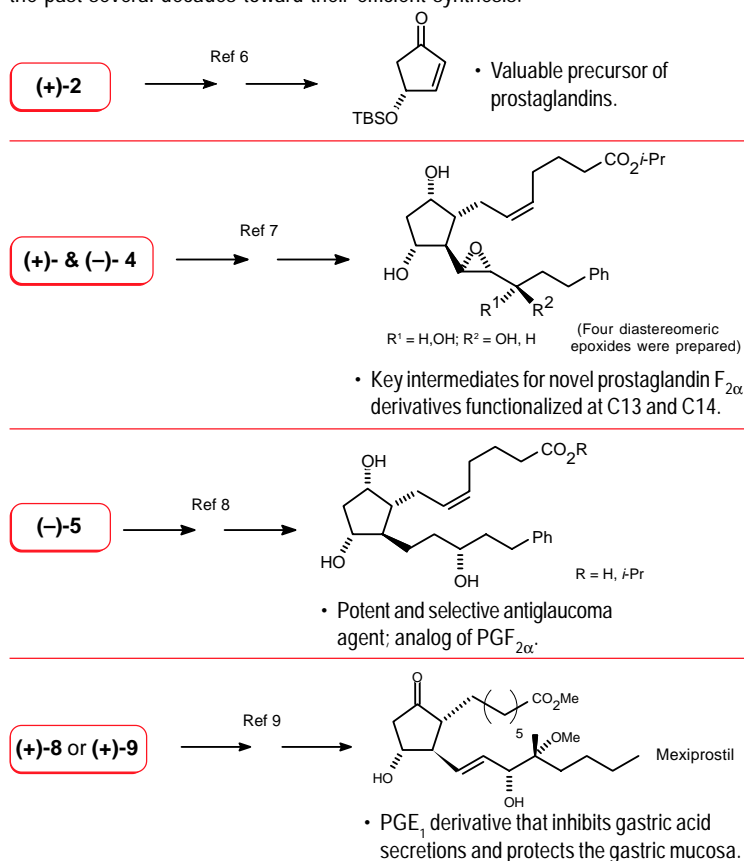
Synthesis of Carbocyclic Nucleosides

Carbocyclic nucleosides have shown biological activity against HIV reverse transcriptase. Potential drug candidates for the treatment of AIDS, such as carbovir,¹ are currently in clinical trials. Aldrich offers a variety of key building blocks for the preparation of analogs of carbovir and other carbocyclic nucleosides.



Synthesis of Prostaglandins

The broad biological activity of prostaglandins has provoked intense effort in the past several decades toward their efficient synthesis.⁵



References: (1) Vince, R.; Hua, M. *J. Med. Chem.* **1990**, 33, 17. (2) Akella, L.B.; Vince, R. *Tetrahedron* **1996**, 52, 8407. (3) Theil, F. et al. *J. Chem. Soc., Perkin Trans. 1* **1995**, 255. (4) Jung, M.E.; Rhee, H. *J. Org. Chem.* **1994**, 59, 4719. Evans, C.T. et al. *J. Chem. Soc., Perkin Trans. 1* **1992**, 589. (5) For a review on prostaglandin synthesis, see: Collins, P.W.; Djuric, S.W. *Chem. Rev.* **1993**, 93, 1533. (6) Myers, A.G. et al. *Tetrahedron Lett.* **1996**, 37, 3083. Paquette, L.A. et al. *Org. Synth.* **1995**, 73, 36. (7) Liljebriis, C. et al. *J. Org. Chem.* **1996**, 61, 4028. (8) Resul, B. et al. *J. Med. Chem.* **1993**, 36, 243. (9) Van Hijfte, L.; Kolb, M. *Tetrahedron* **1992**, 48, 6393.



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