

^1H NMR (CDCl_3) δ 8.12–8.01 (6H, m), 7.62–7.35 (9H, m), 6.66 (1H, s), 5.56 (1H, d, $J = 1.9$ Hz), 4.73 (1H, ddd, $J = 3.3, 1.9, 1.2$ Hz), 4.62 (2H, dd, $J = 1.4, 1.9$ Hz), 2.73 (1H, s).

α -D-1,2,3,5-Tetra-*O*-benzoyl-2-deuterio-ribofuranose (^2H -5). Freshly distilled benzoyl chloride (7.0 g, 50.1 mmol) was added via syringe to ^2H -3 (2.32 g, 5.0 mmol) in pyridine (25 mL). After being stirred for 12 h, the reaction was quenched via addition of H_2O (25 mL), immediately followed by portionwise addition of NaHCO_3 (8.4 g, 100 mmol). The mixture was extracted with diethyl ether (400 mL) and the organic layer dried and concentrated as described above. Flash chromatography¹³ of the residue (EtOAc:hexanes 3:7) yielded ^2H -5 (2.56 g, 90%) as a white foam: IR (film) 3063 (w), 3034 (w), 1913 (w), 1728, (s), 1602 (m), 1584, (w), 1492 (w), 1451, (m), 1316, (m), 1270 (s), 1177 (m), 1160 (m), 1112 (m), 1094 (m), 1068 (m), 1025 (m), 1008 (m) cm^{-1} ; ^1H NMR (CDCl_3) δ 8.12–8.02 (6H, m), 7.86–7.83 (2H, m), 7.59–7.24 (12H, m), 6.94 (1H, s), 5.90–5.89 (1H, d, $J = 2.2$ Hz), 4.92–4.90 (1H, m), 4.79–4.64 (2H, dd \times dd, $J = 3.1, 12.2, 3.6, 12.2$ Hz).

2'-Deuterioadenosine (6a). Dried ^2H -5 (2.56 g, 4.51 mmol) was added to *N*⁶-benzoyladenine (1.20 g, 5.0 mmol) which had been persilylated by bis(trimethylsilyl)acetamide (2.14 g, 10.5 mmol) in CH_3CN (50 mL). TMSOTf (1.5 g, 6.77 mmol) was added via syringe to the mixture at 0 °C. The mixture was then placed in an oil bath, slowly brought to reflux, and held at this temperature for 12 h. The cooled solution was poured into EtOAc (200 mL), washed with saturated NaHCO_3 (3 \times 50 mL) and brine (50 mL), and dried over MgSO_4 . Flash chromatography (EtOAc:Hexanes 1:1–7:3) yielded the tetrabenzoyladenine (2.67 g, 78%). The tetrabenzoyl nucleoside was deprotected in NH_3 -saturated MeOH (30 mL) over the course of 48 h. The MeOH was recharged with NH_3 after 24 h. 2'-Deuterioadenosine (6a) was crystallized from 9 mL of $\text{H}_2\text{O}:\text{iPrOH}$ (1:2) which provided 1.92 g (71.0%): mp 231–233 °C (234–236 °C com-

mercially available protio material); ^1H CDCl_3 (D_2O) δ 8.24 (1H, s), 8.12 (1H, s), 5.90 (1H, s), 4.24 (1H, d, $J = 3.8$ Hz), 4.09–4.07 (1H, m), 3.76–3.62 (2H, dd \times dd, $J = 2.8, 12.8, 3.9, 12.8$ Hz).

2'-Deuteriouridine (6b). Dried ^2H -5 (193 mg, 0.34 mmol) was added to uracil (40 mg, 0.36 mmol) which had been silylated as described above. SnCl_4 (279 mg, 1.1 mmol) was added via syringe to the solution at –10 °C, which was allowed to stir and warm to room temperature over 12 h, at which time the reaction was worked up as described above. Flash chromatography (EtOAc:hexanes 4:6) yielded the tribenzoyluridine (133 mg, 70%). Ammonolysis was carried out as described above. 2'-Deuteriouridine (57 mg, 96%) was purified by flash chromatography (EtOAc:MeOH 8:2); mp 165–166 °C (166–167 °C commercially available protio material). ^1H NMR (D_2O) δ 8.00 (1H, d, $J = 8.1$ Hz), 5.89 (1H, s), 5.69 (1H, d, $J = 8.1$ Hz), 4.14 (1H, d, $J = 4.7$ Hz), 3.99 (1H, ddd, $J = 3.0, 1.1, 2.9$ Hz), 3.86–3.69 (2H, dd \times dd, $J = 2.7, 12.3, 3.1, 12.3$ Hz).

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Supplementary Material Available: ^1H NMR spectra of ^2H -3, 5, 6a, and 6b (5 pages). This material is contained in libraries on microfiche, immediately follows this article in the microfilm version of the journal, and can be ordered from the ACS; see any current masthead page for ordering information.

(13) Still, W. C.; Kahn, M.; Mitra, A. *J. Org. Chem.* **1978**, *43*, 2923.

Additions and Corrections

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Kevin Koch* and Michael S. Biggers. General Preparation of 7-Substituted 4-Chromanones: Synthesis of a Potent Aldose Reductase Inhibitor.

Page 1216, column 2. In Figure 1, cromokalim should be numbered (1) and structure 2 should be Ro 25-2636. Reference 3 is incorrect and should be replaced with the following: Cohen, N.; et al. 205th National Meeting of the American Chemical Society, Denver, 1993; MEDI 137. Cohen, N.; Yagaloff, K. *Curr. Opin. Invest. Drugs* **1994**, *3*, 13–22, U.S. Pat. 5 273 999 (Hoffmann-La Roche Inc.)

Jose Marco-Contelles,* Manuel Bernabé, David Ayals, and Belén Sánchez. 6-endo-dig Free-Radical Carbocyclizations: A New Strategy for the Synthesis of Cyclitols.

Page 1234. Since publication of our new methodology for the preparation of enantiomerically pure cyclitols, the first example of a 6-endo-digonal closure (applied to the synthesis of racemic *trans*-fused bicyclo[4.3.0]nonanes by atom chain transfer in conveniently functionalized precursors) has come to our attention: Albrecht, U.; Wartchow, R.; Hoffmann, H. M. R. *Angew. Chem., Int. Ed. Engl.* **1992**, *31*, 910.