Anomeric spironucleosides of β-D-glucopyranosyl uracil as potential inhibitors of glycogen phosphorylase

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Supplementary Materials

Contents

Figure S1. ^{1}H NMR spectrum of compound **5** (200 MHz, $CDCl_3$).

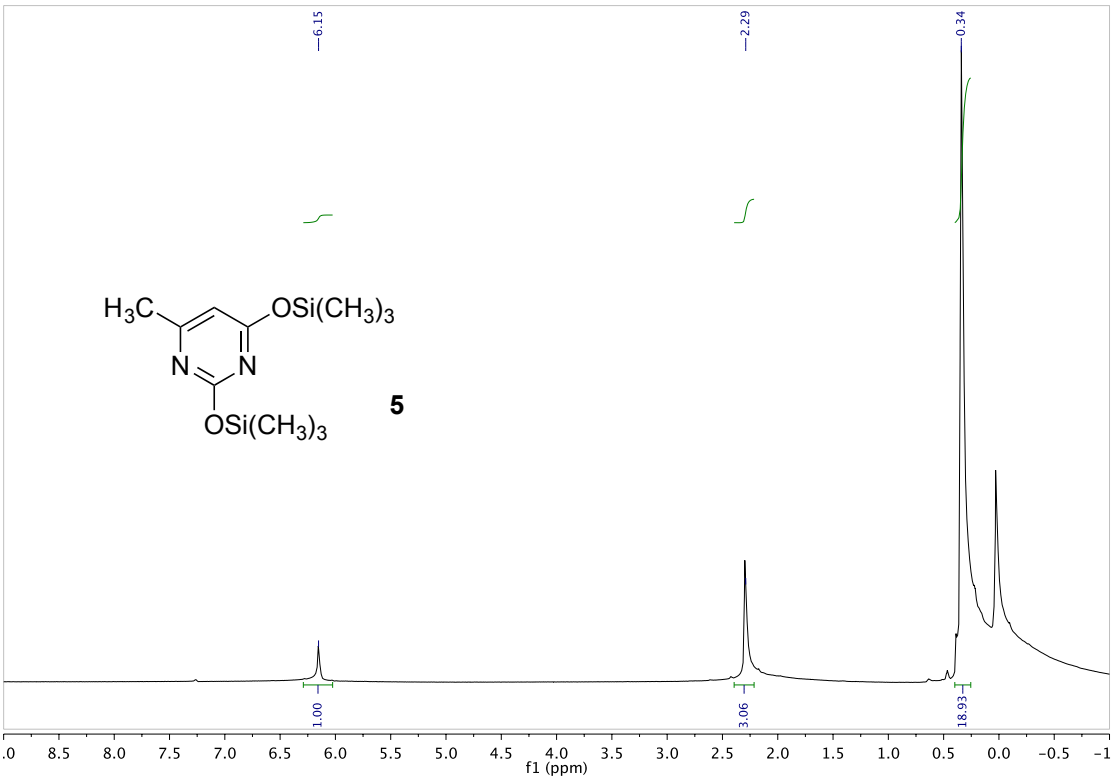


Figure S2. ^{13}C NMR spectrum of compound **5** (50 MHz, $CDCl_3$).

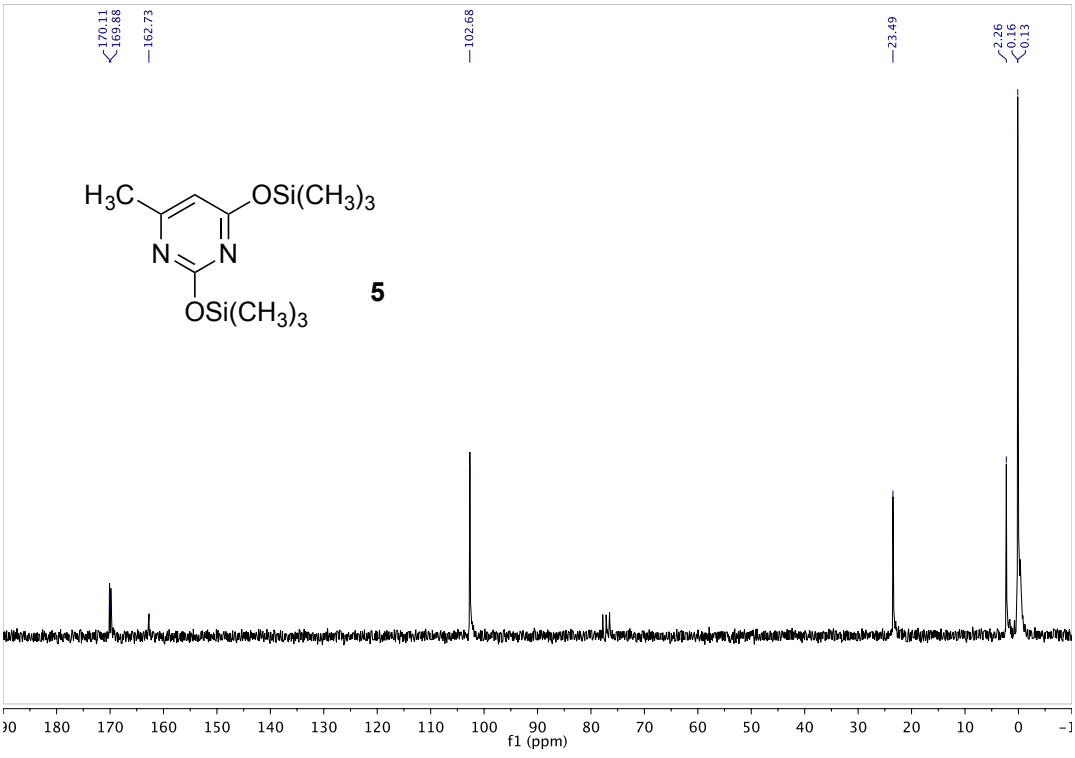


Figure S3. ^{1}H NMR spectrum of compound **6a** (200 MHz, $CDCl_3$).

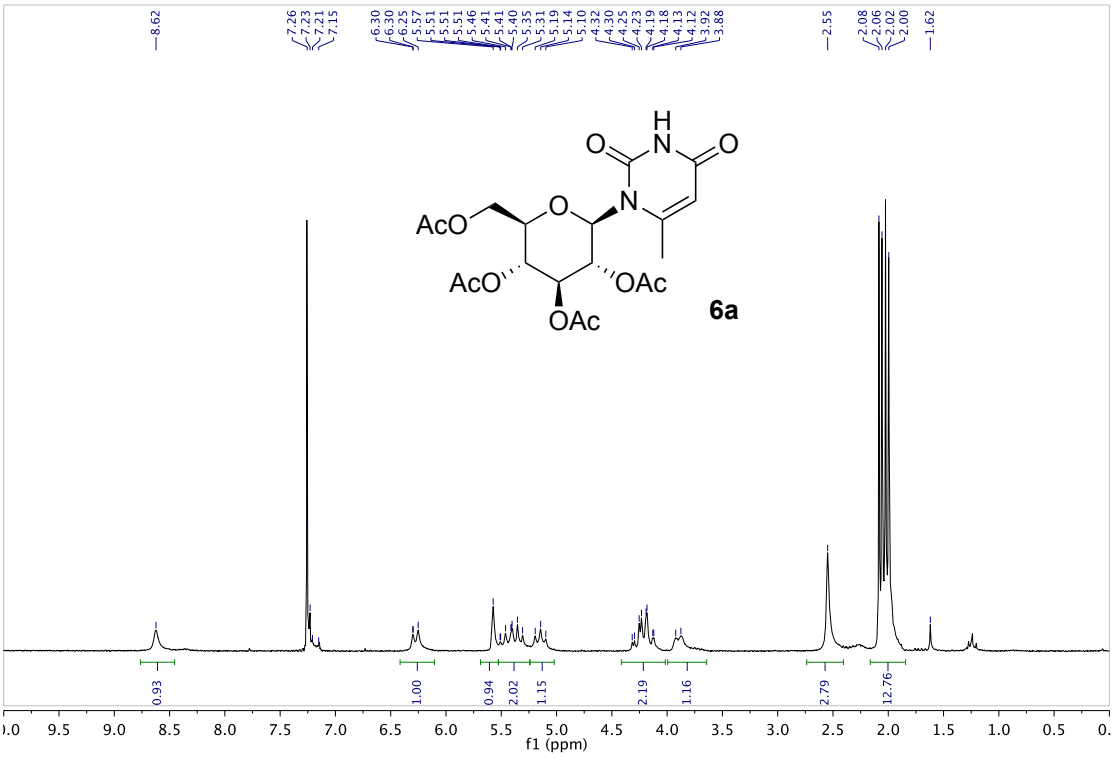


Figure S4. ^{13}C NMR spectrum of compound **6a** (50 MHz, $CDCl_3$).

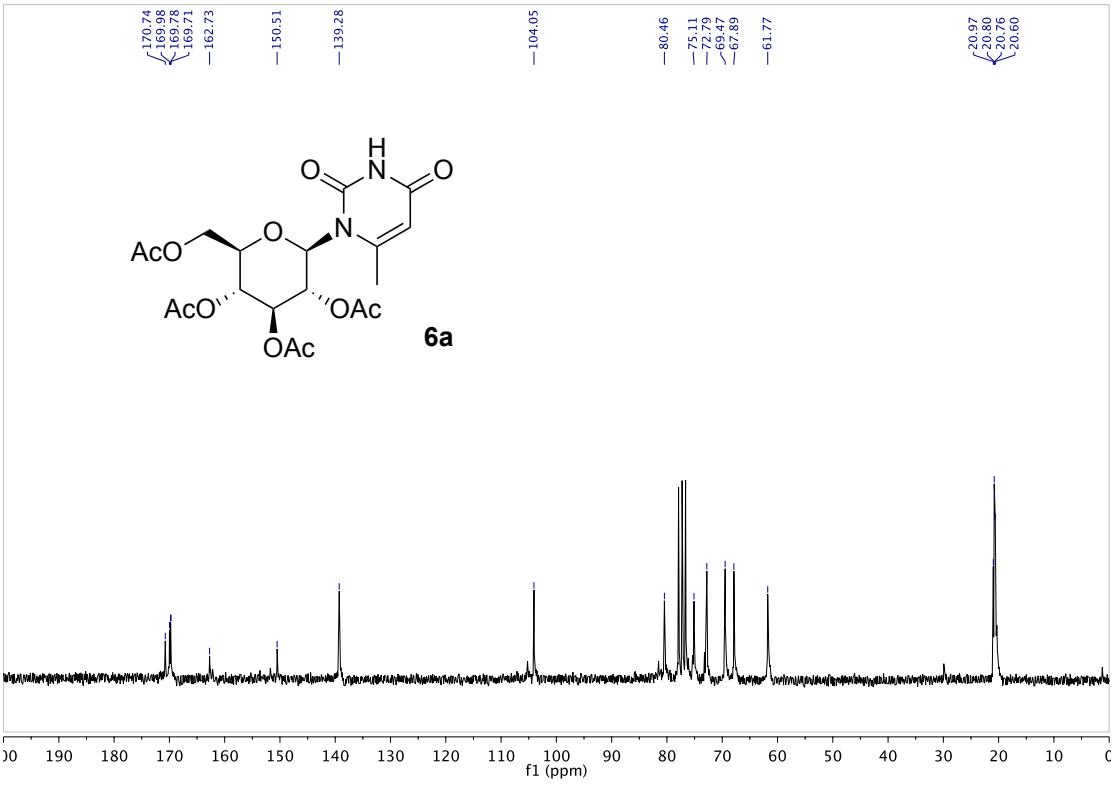


Figure S5. ^{1}H NMR spectrum of compound **6b** (200 MHz, $CDCl_3$).

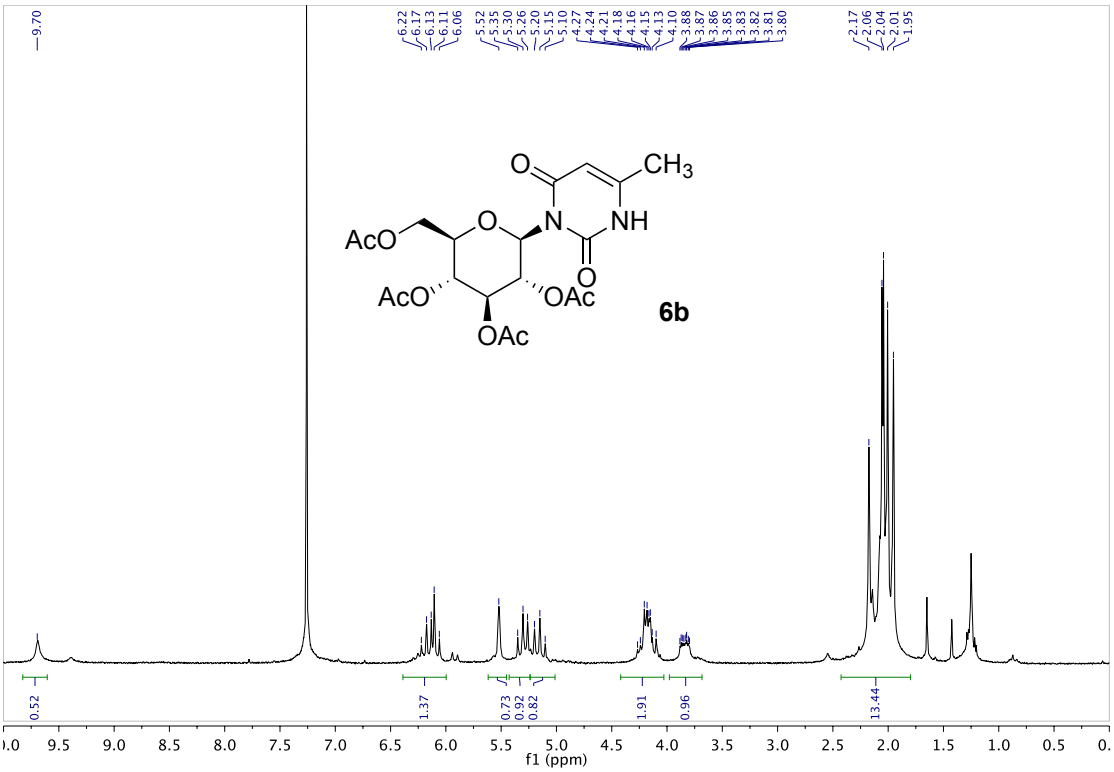


Figure S6. ^{13}C NMR spectrum of compound **6b** (50 MHz, $CDCl_3$).

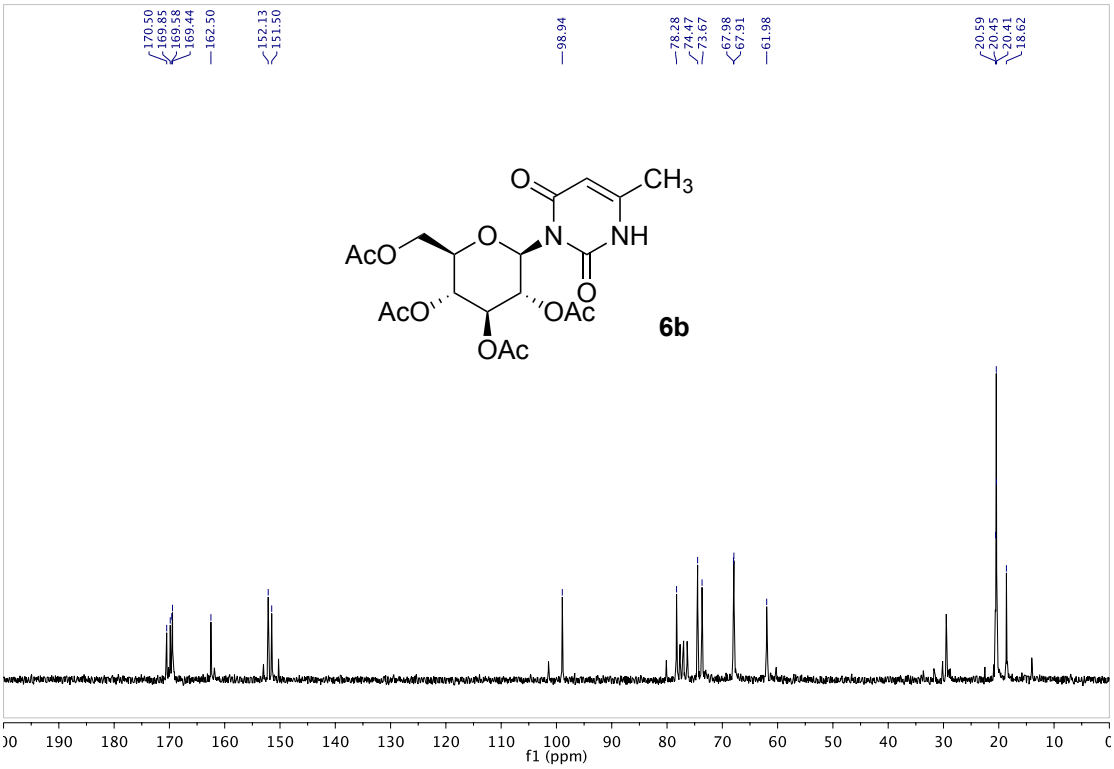


Figure S7. ^{1}H NMR spectrum of compound **6c** (200 MHz, $CDCl_3$).

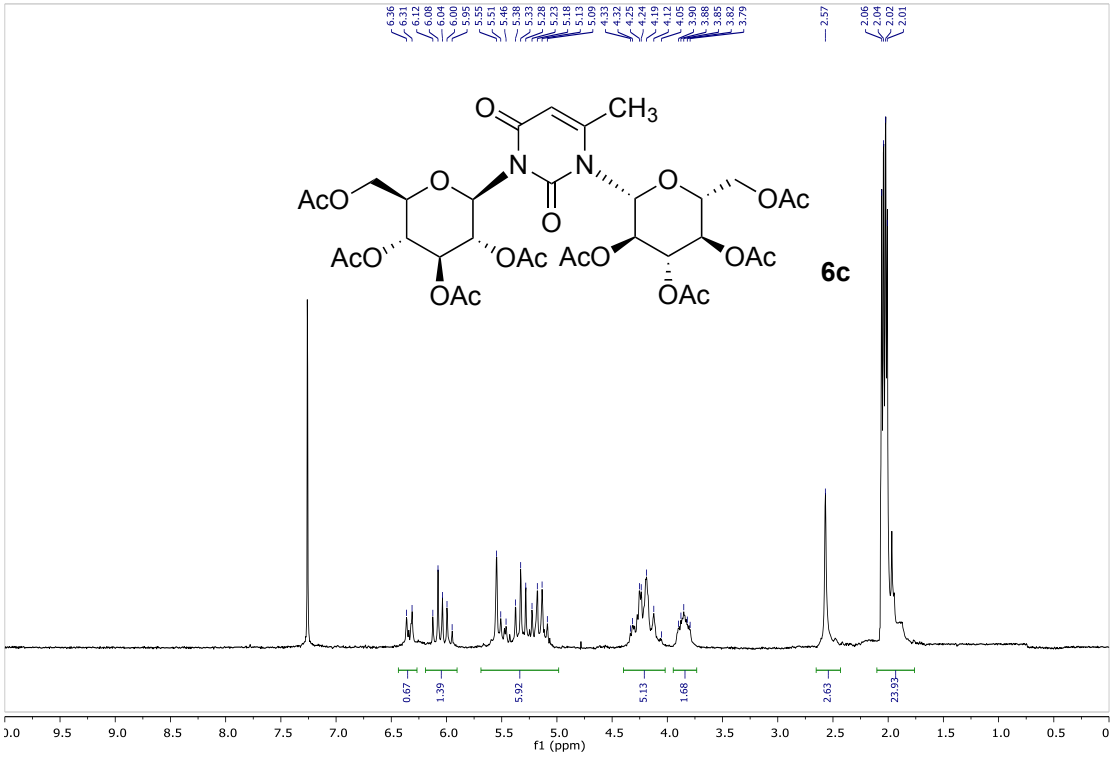


Figure S8. ^{13}C NMR spectrum of compound **6b** (50 MHz, $CDCl_3$).

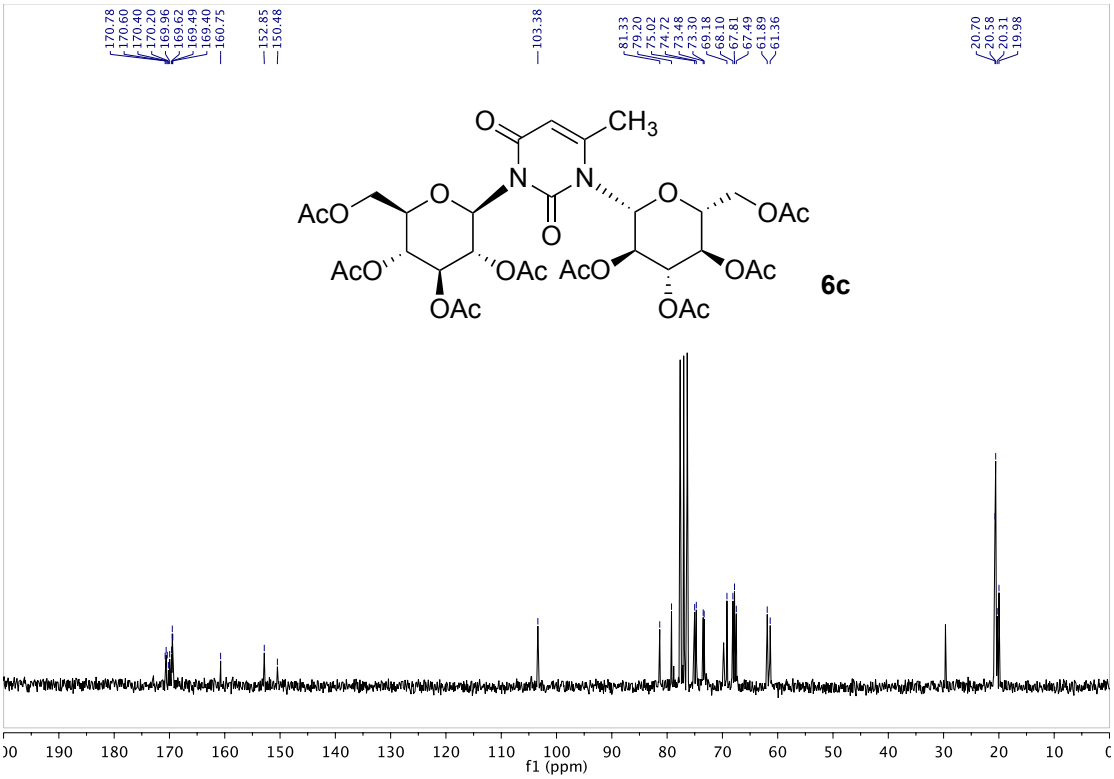


Figure S9. ^{1}H NMR spectrum of compound **7** (200 MHz, $CDCl_3$).

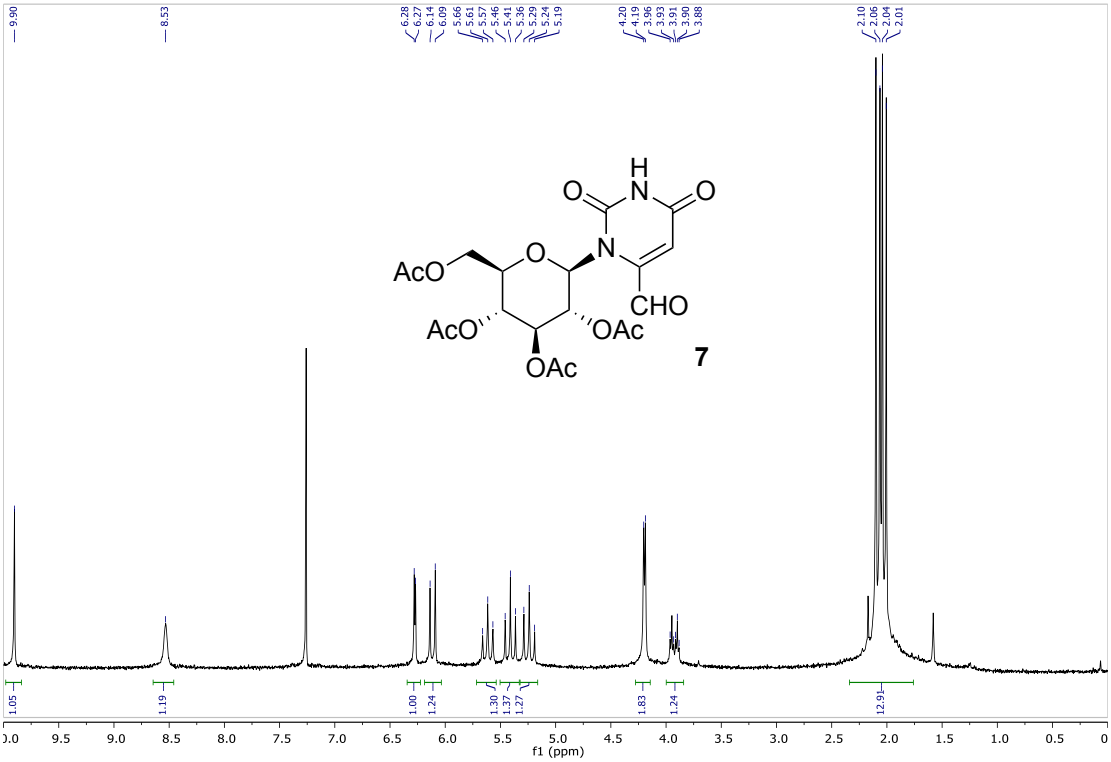


Figure S10. ^{13}C NMR spectrum of compound **7** (50 MHz, $CDCl_3$).

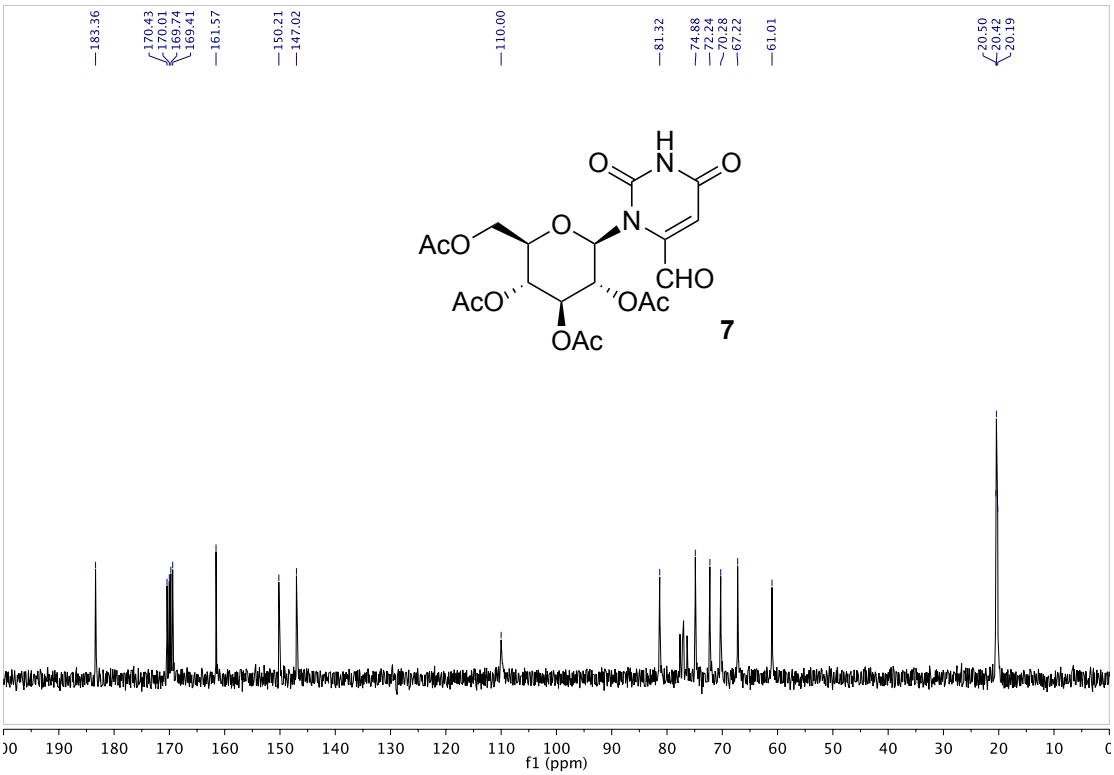


Figure S11. ^{1}H NMR spectrum of compound **8** (200 MHz, DMSO-d6).

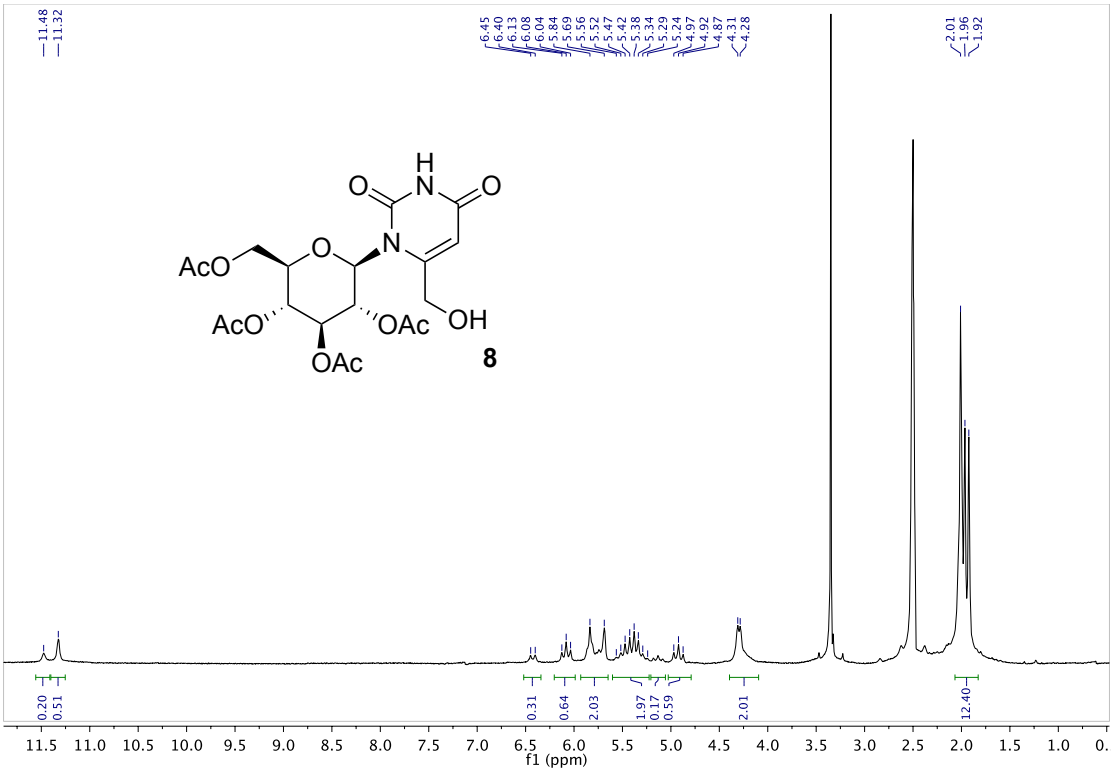


Figure S12. ^{1}H NMR spectrum of compound **8** (200 MHz, DMSO-d6) at 75 °C.

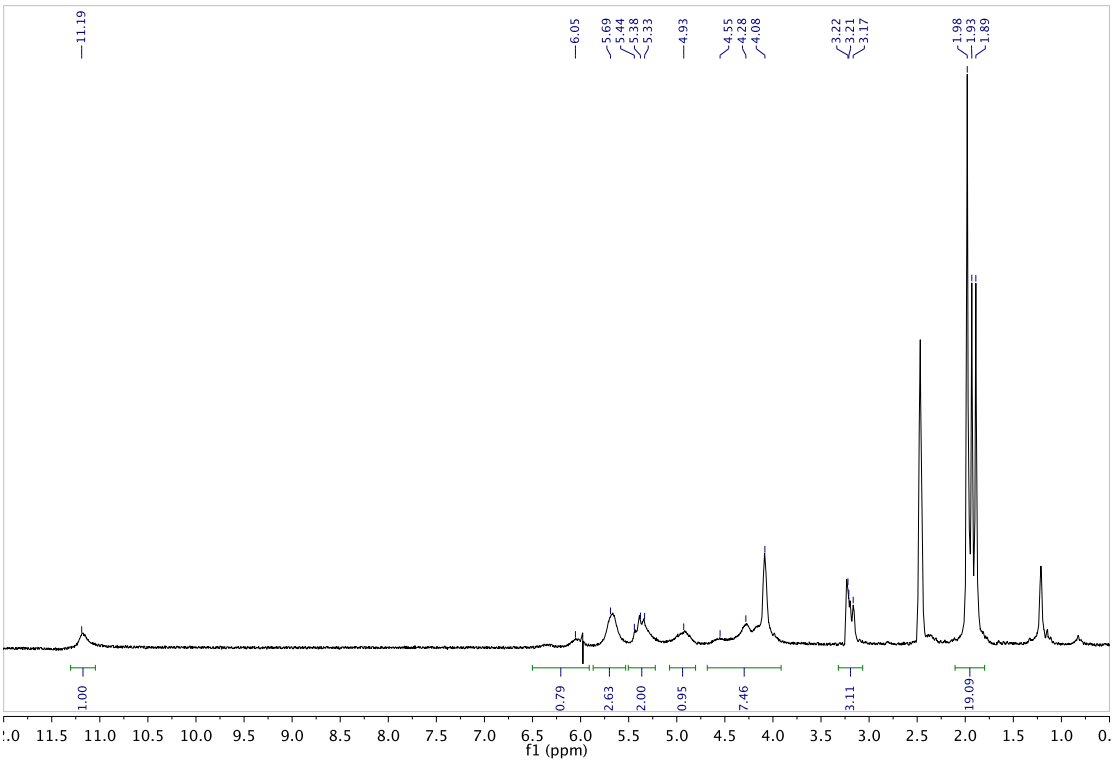


Figure S13. ^{13}C NMR spectrum of compound **8** (50 MHz, $CDCl_3$).

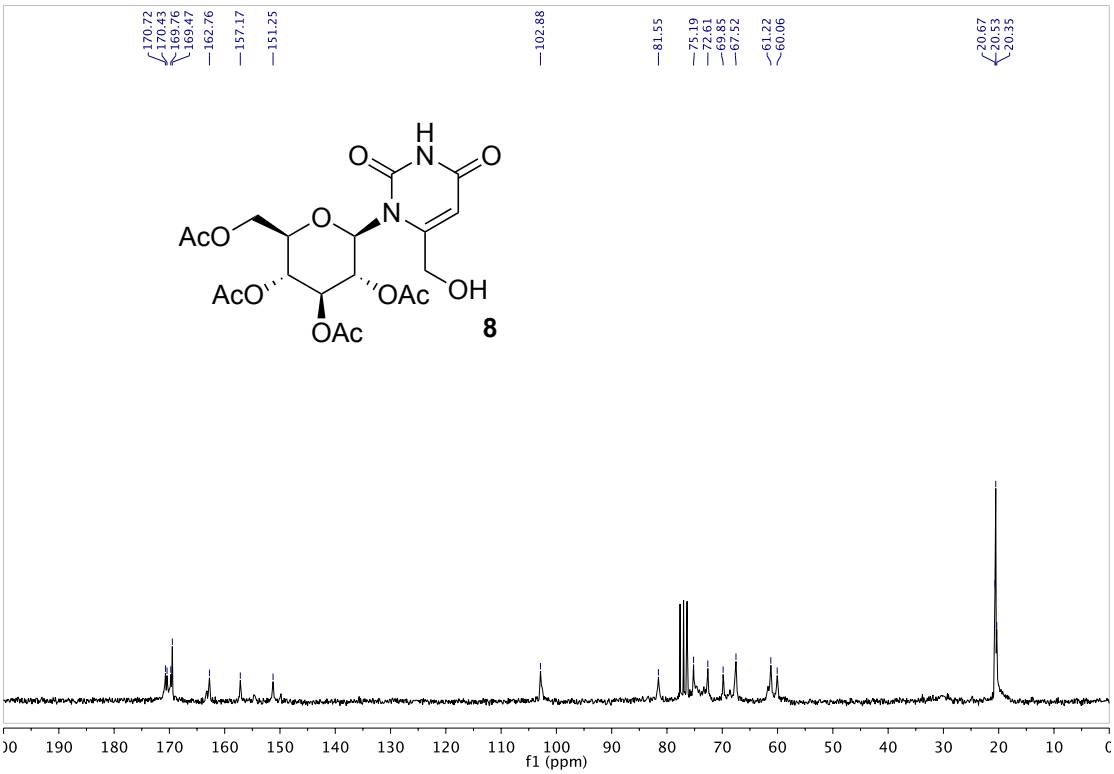


Figure S14. ^{1}H NMR spectrum of compound **9a** (200 MHz, $CDCl_3$).

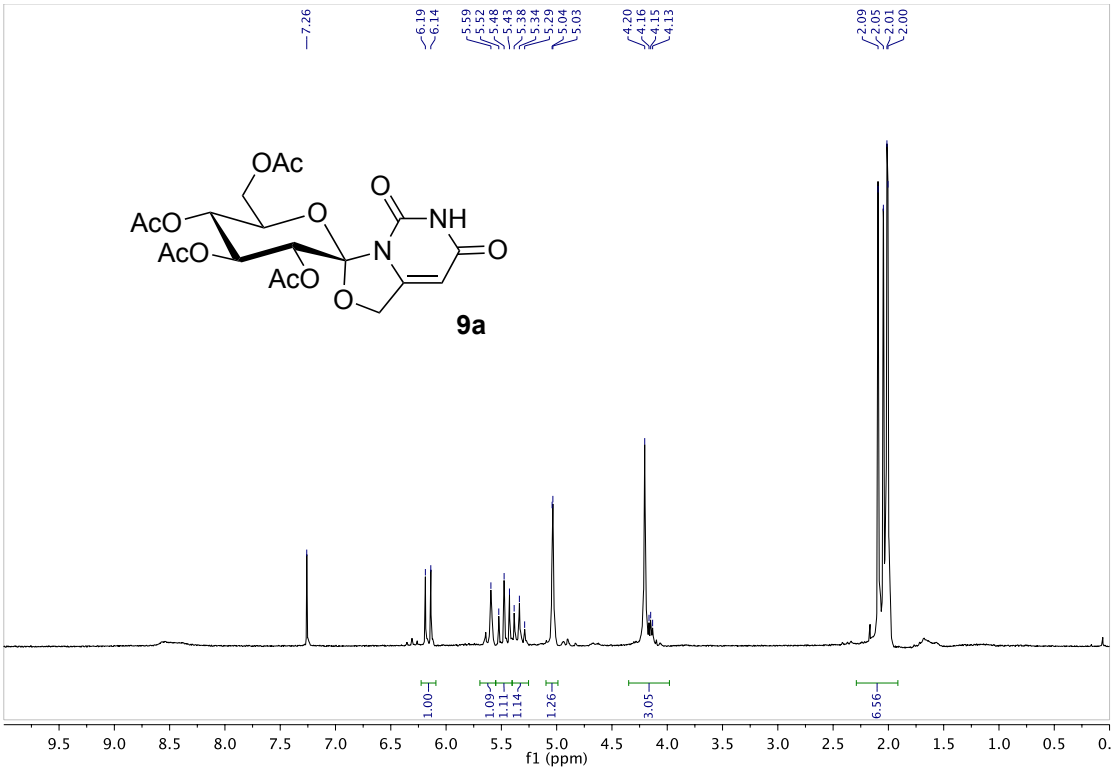


Figure S15. ^{13}C NMR spectrum of compound **9a** (50 MHz, $CDCl_3$).

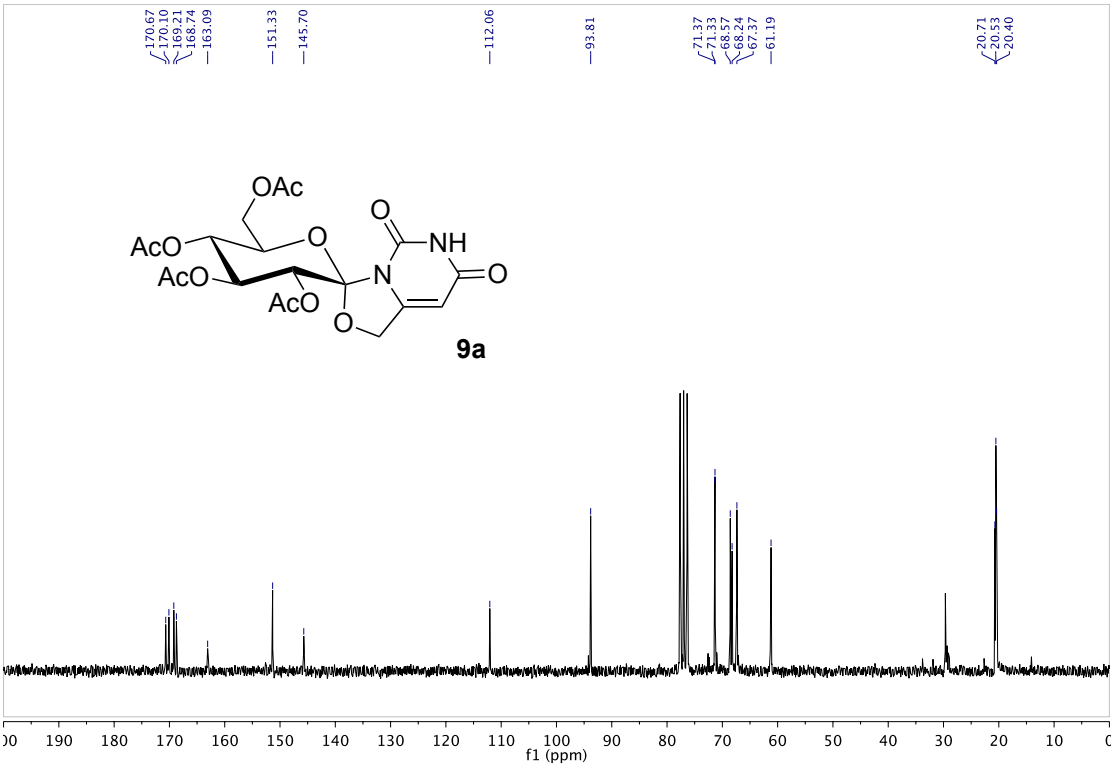


Figure S16. ^{1}H NMR spectrum of compound **9b** (200 MHz, $CDCl_3$).

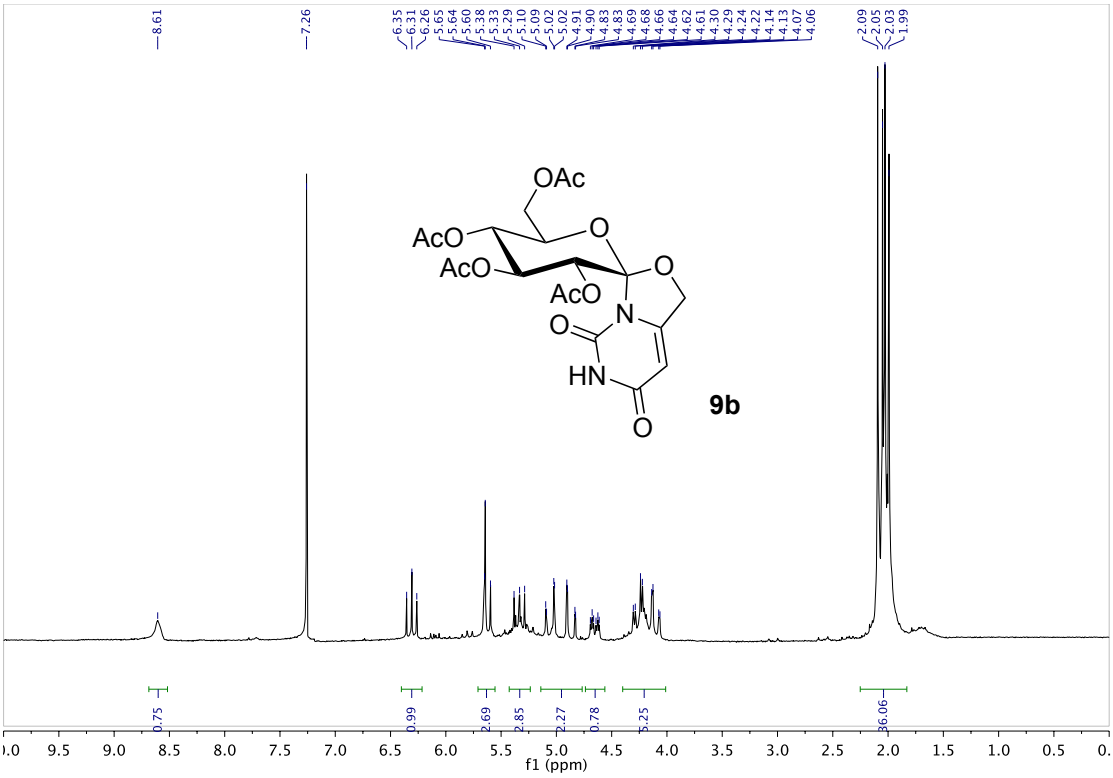


Figure S17. ^{13}C NMR spectrum of compound **9b** (50 MHz, $CDCl_3$).

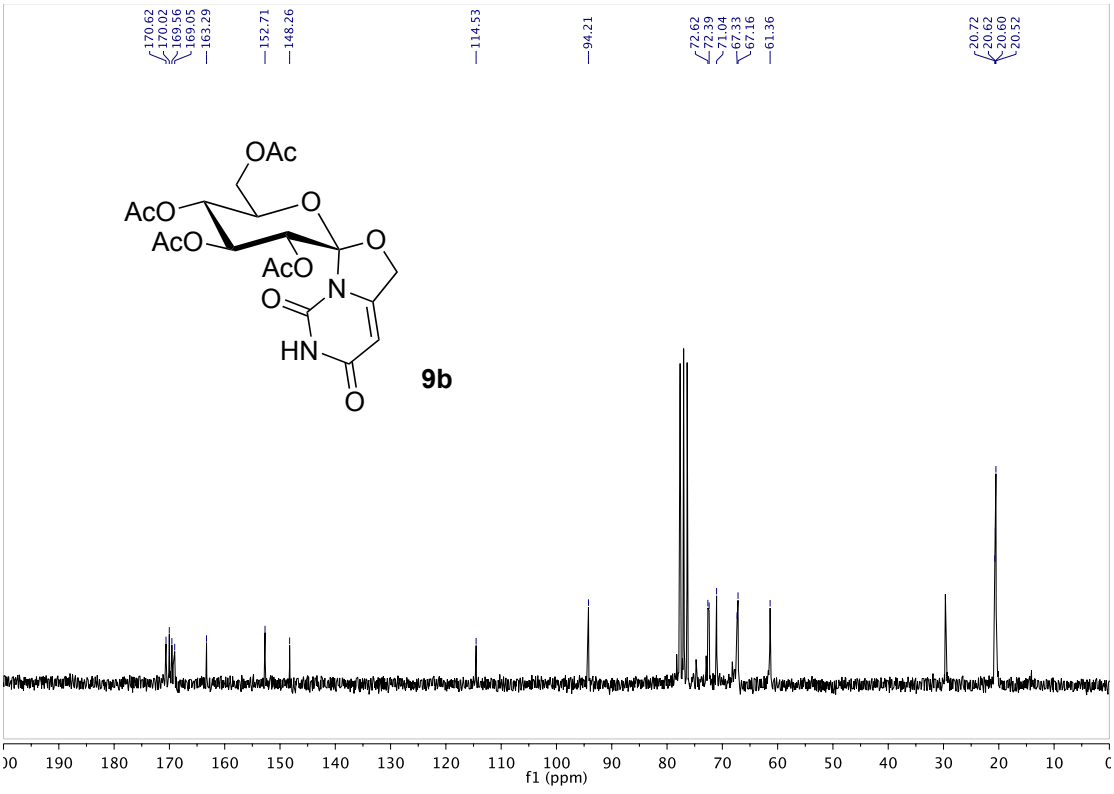


Figure S18. ^{1}H NMR spectrum of compound **4a** (200 MHz, $CDCl_3$).

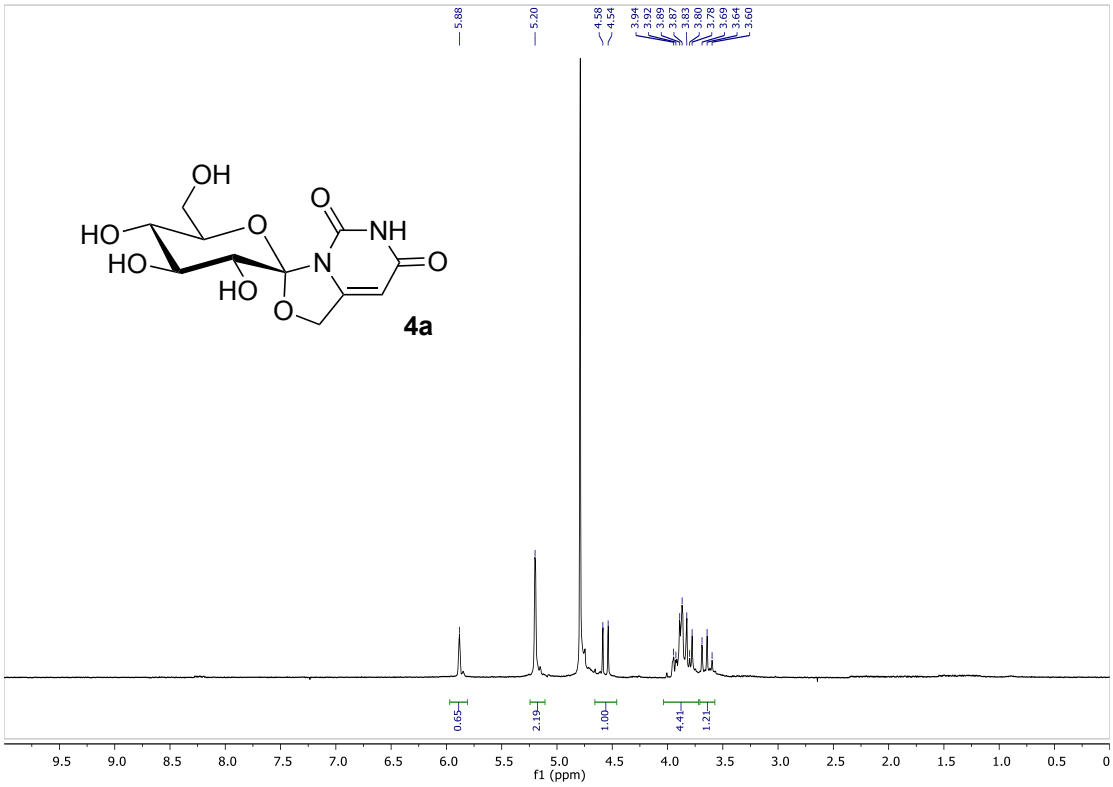


Figure S19. ^{13}C NMR spectrum of compound **4a** (50 MHz, $CDCl_3$).

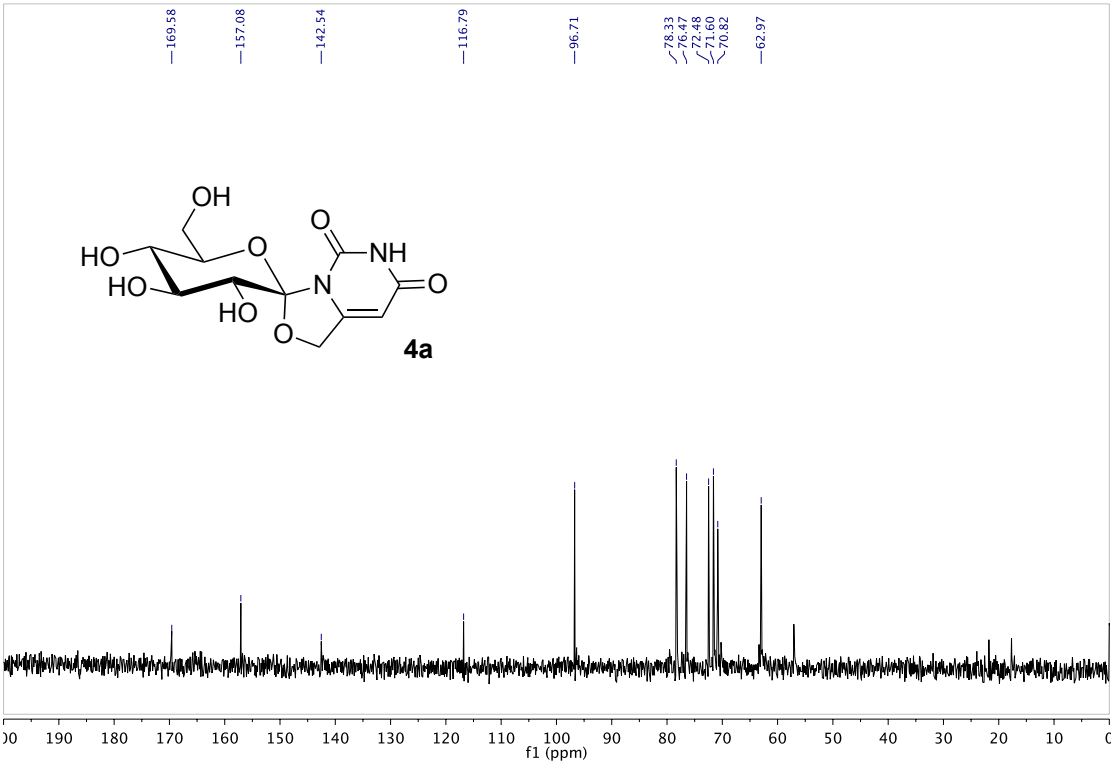


Figure S20. ^{1}H NMR spectrum of compound **4b** (200 MHz, D_2O).

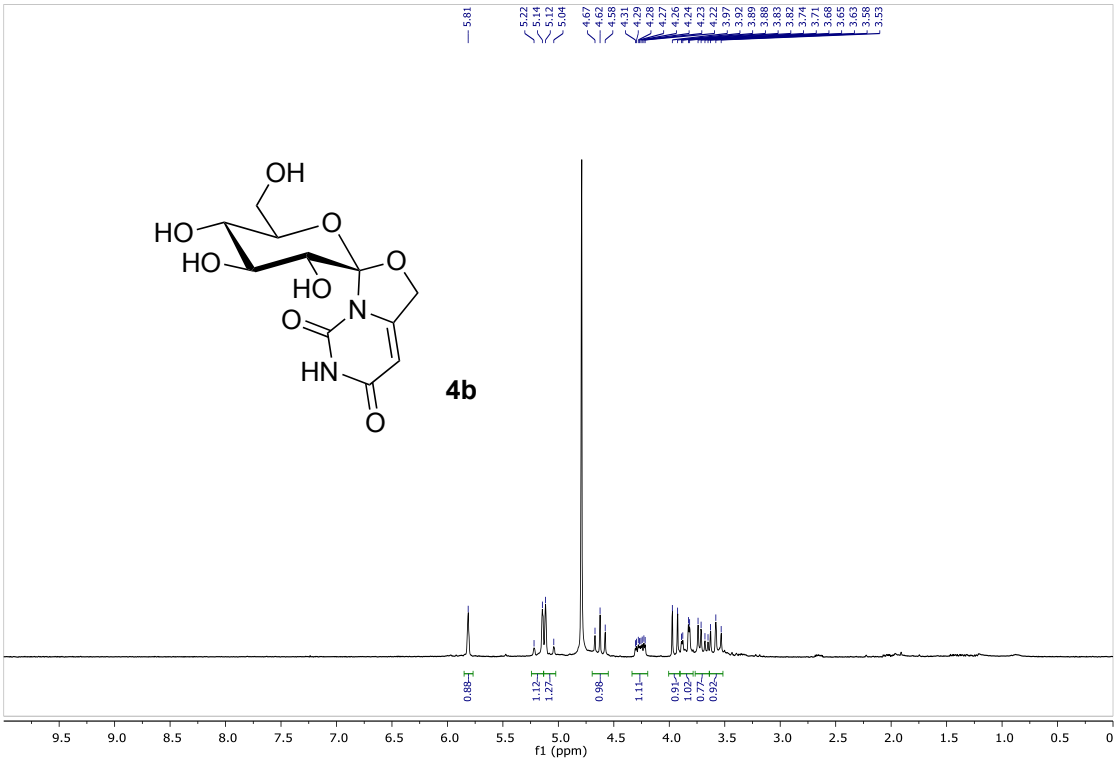
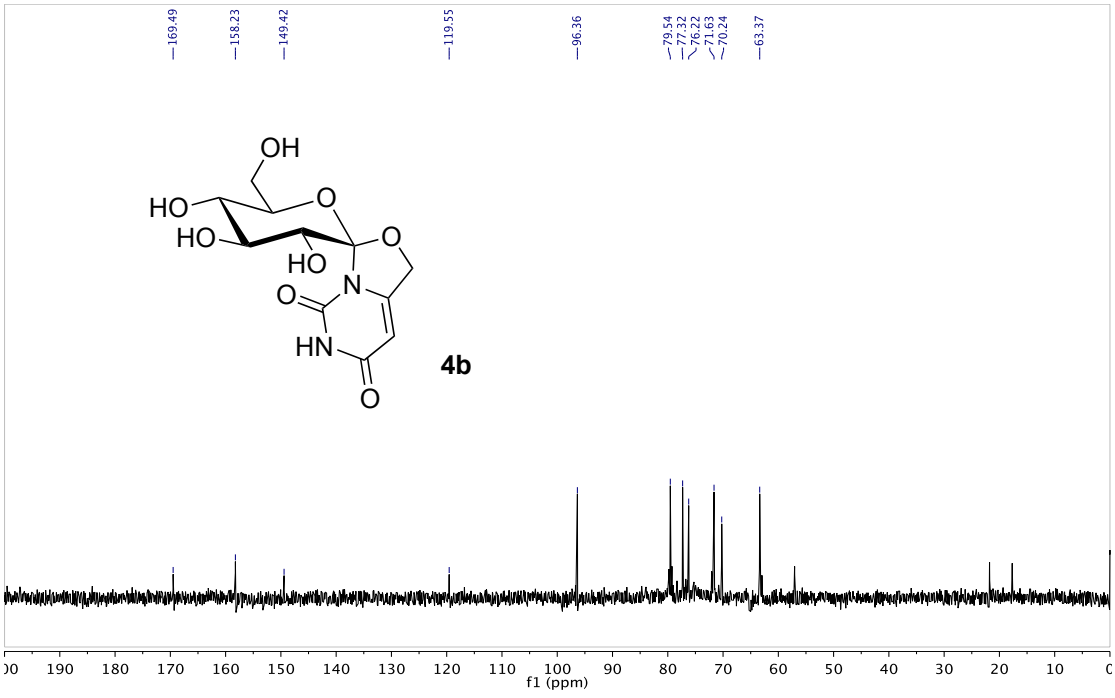
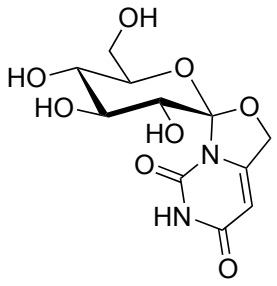


Figure S21. ^{13}C NMR spectrum of compound **4b** (50 MHz, D_2O).



2. Enzyme Kinetics

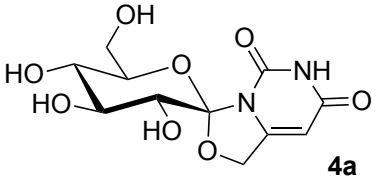


4b

RMGP*b* = 5 γ/ml
G1p = 2 mM
AMP = 1 mM
Gly = 0.2%
Buffer =
β-glycerophosphate:mercaptoethanol:EDTA
0.5 : 0.5 : 0.01
Km = 3 mM

Table S1. Inhibition vs **4b** concentration.

[4b] (μM)	% Inhibition
200	6.9
400	19.7
600	25.0
1000	35.0



4a

RMGP*b* = 5 γ/ml
G1p = 2 mM
AMP = 1 mM
Gly = 0.2%
Buffer =
β-glycerophosphate:mercaptoethanol:EDTA
0.5 : 0.5 : 0.01
Km = 3 mM

Table S2. Inhibition vs **4a** concentration.

[4a] (μM)	% Inhibition
200	1.7
400	9.4
600	18.3
1000	25.8