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Supporting Information

Microwave assisted synthesis of novel purine nucleosides as selective cholinesterase inhibitors

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Figure S1. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-acetyl- β -D-glucopyranosyl)purine (1)



Figure S2. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)purine (1)



Figure S4. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)purine (2)



Figure S5. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (**3**)



Figure S6. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (**3**)



Figure S7. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (4)



Figure S8. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (4)



Figure S9. ¹H NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (5)



Figure S10. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (5)



Figure S11. ¹H NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl- β -D-glucopyranosyl)purine (6)



Figure S12. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl- β -D-glucopyranosyl)purine (6)



Figure S13. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyl)purine (7)



Figure S14. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyl)purine (7)



Figure S15. ¹H NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-galactopyranosyl)purine (8)



Figure S16. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-galactopyranosyl)purine (**8**)





Figure S18. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-O-benzyl- β -D-galactopyranosyl)purine (9)



Figure S19. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (10)



Figure S20. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (10)



Figure S21. ¹H NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl- β -D-mannopyranosyl)purine (11)



Figure S22. ¹³C NMR spectrum of 6-Chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-mannopyranosyl)purine (11)



Figure S23. ¹H NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (**12**)



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Figure S25. ¹H NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-β-D-mannopyranosyl)purine (13)



Figure S26. ¹³C NMR spectrum of 6-Chloro-9-(2,3,4,6-tetra-*O*-benzyl-β-D-mannopyranosyl)purine (13)



Figure S27. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (14)



Figure S28. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-glucopyranosyl)purine (14)



Figure S29. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (15)



Figure S30. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (15)



Figure S31. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (16)



Figure S32. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)purine (16)



Figure S33. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- α -D-galactopyranosyl)purine (17)



Figure S34. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- α -D-galactopyranosyl)purine (17)



Figure S35. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- β -D-galactopyranosyl)purine (18)



Figure S36. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- β -D-galactopyranosyl)purine (18)



Figure S37. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl- α -D-galactopyranosyl)purine (19)



Figure S38. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl- α -D-galactopyranosyl)purine (19)



Figure S39. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl- β -D-galactopyranosyl)purine (20)



Figure S40. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl- β -D-galactopyranosyl)purine (20)



Figure S41. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (21)



Figure S42. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- α -D-mannopyranosyl)purine (21)



Figure S43. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl-β-D-mannopyranosyl)purine (22)



Figure S44. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-7-(2,3,4,6-tetra-*O*-benzyl- β -D-mannopyranosyl)purine (22)



Figure S45. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (23)



Figure S46. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl)purine (23)



Figure S47. ¹H NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl-β-D-mannopyranosyl)purine (24)



Figure S48. ¹³C NMR spectrum of 2-(Acetylamino)-6-chloro-9-(2,3,4,6-tetra-*O*-benzyl- β -D-mannopyranosyl)purine (24)