Supplementary Data

Synthesis, characterization and biological studies of diosgenyl analogs

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Compound 3b:

Fig. S1. $^1$H and $^{13}$C NMR spectra of compound 3b
Compound 5b:

Fig. S2. $^1$H and $^{13}$C NMR spectra of compound 5b
Compound 6b:

Fig. S3. $^1$H and $^{13}$C NMR spectra of compound 6b
Compound 3c:

Fig. S4. $^1$H and $^{13}$C NMR spectra of compound 3c
Compound 5c:

Fig. S5. $^1$H and $^{13}$C NMR spectra of compound 5c
Compound 6c:

Fig. S6. $^1$H and $^{13}$C NMR spectra of compound 6c
Compound 3:

Fig. S7. $^1$H and $^{13}$C NMR spectra of compound 3
Compound 5:

Fig. S8. $^1$H and $^{13}$C NMR spectra of compound 5
Compound 6:

Fig. S9. $^1$H and $^{13}$C NMR spectra of compound 6
Compound 7a:

Fig.S10. $^1$H and $^{13}$C NMR spectra of compound 7a
Compound 8a:

Fig. S11. $^1$H and $^{13}$C NMR spectra of compound 8a
Compound 11a:

Fig. S13. $^1$H and $^{13}$C NMR spectra of compound 11a
Compound 7:

Fig.S14. $^1$H and $^{13}$C NMR spectra of compound 7.
Compound 8:

Fig. S15. $^1$H and $^{13}$C NMR spectra of compound 8
Compound 11:

Fig. S17. $^1$H and $^{13}$C NMR spectra of compound 11
Compound 12:

Fig. S18. $^1$H and $^{13}$C NMR spectra of compound 12
Compound 13:

Fig. S19. $^1$H and $^{13}$C NMR spectra of compound 13
Compound 14a:

Fig. S20. $^1$H and $^{13}$C NMR spectra of compound 14a
Compound 15a:

Fig. S21. $^1$H and $^{13}$C NMR spectra of compound 15a
Compound 16a;

Fig. S22. $^1$H and $^{13}$C NMR spectra of compound 16a
Compound 17a:

Fig. S23. $^1$H and $^{13}$C NMR spectra of compound 17a
Compound 14:

Fig. S24. $^1$H and $^{13}$C NMR spectra of compound 14
Compound 15:

Fig. S25. $^1$H and $^{13}$C NMR spectra of compound 15
Compound 16:

Fig. S26. $^1$H and $^{13}$C NMR spectra of compound 16
Compound 17:

Fig. S27. $^1$H and $^{13}$C NMR spectra of compound 17
Compound 21:

Fig. S28. $^1$H and $^{13}$C NMR spectra of compound 21
Compound 22:

Fig. S29. $^1$H and $^{13}$C NMR spectra of compound 22
Compound 23:

Fig. S30. $^1$H and $^{13}$C NMR spectra of compound 23
Compound 24:

![NMR spectra of compound 24](image)

Fig. S31. $^1$H and $^{13}$C NMR spectra of compound 24
Compound 27:

Fig. S32. $^1$H and $^{13}$C NMR spectra of compound 27
Compound 28:

Fig. S33. $^1$H and $^{13}$C NMR spectra of compound 28
Compound 29:

Fig. S34. $^1$H and $^{13}$C NMR spectra of compound 29
Compound 30:

Fig. S35. $^1$H spectra of compound 30
Compound 32:

Fig. S36. $^1$H and $^{13}$C NMR spectra of compound 32