Supplementary Material

Copies of ¹H-, ¹³C-NMR and Mass (HRMS) spectra for all new compounds.

 4β -N-[(E)-(5-((Dimethylamino)methyl)furan-2-yl)prop-2-en-1-amine]-4'-demethyl-4-desoxy-podophyllotoxin (**9a**)



Figure S1. ¹H-NMR of compound 9a.



Figure S2. ¹³C-NMR of compound 9a.



Figure S3. HR-ESI-MS spectra of compound 9a.



 4β -N-[(E)-(5-((Dimethylamino)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (9b)

Figure S4. ¹H-NMR of compound 9b.



Figure S5. ¹³C-NMR of compound 9b.



Figure S6. HR-ESI-MS spectra of compound 9b.

 4β -N-[(E)-(5-((Diethylamino)methyl)furan-2-yl)prop-2-en-1-amine]-4'-demethyl-4-desoxy-podophyllotoxin (**9c**)



Figure S7. ¹H-NMR of compound 9c.



Figure S8. ¹³C-NMR of compound 9c.



Figure S9. HR-ESI-MS spectra of compound 9c.

 $4\beta \text{-}N\text{-}[(E)\text{-}(5\text{-}((Diethylamino)methyl)furan\text{-}2\text{-}yl)prop\text{-}2\text{-}en\text{-}1\text{-}amine]\text{-}4\text{-}desoxy\text{-}podophyllotoxin} (\textbf{9d})$







Figure S11. ¹³C-NMR of compound 9d.



Figure S12. HR-ESI-MS spectra of compound 9d.

 4β -N-[(E)-(5-((4-Methylpiperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4 ' -demethyl-4-desoxy-podophyllotoxin (**9e**)







Figure S14. ¹³C-NMR of compound 9e.



Figure S15. HR-ESI-MS spectra of compound 9e.

 4β -N-[(E)-(5-((4-Methylpiperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]l-4-desoxy-podophyllotoxin (**9f**)



Figure S16. ¹H-NMR of compound 9f.



Figure S17. ¹³C-NMR of compound 9f.



Figure S18. HR-ESI-MS spectra of compound 9f.

 4β -N-[(E)-(5-((4-Ethylpiperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4'-demethyl-4-desoxy-podophyllotoxin (**9g**)



Figure S19. ¹H-NMR of compound 9g.



Figure S20. ¹³C-NMR of compound 9g.



Figure S21. HR-ESI-MS spectra of compound 9g.

 4β -N-[(E)-(5-((4-Ethylpiperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (9h)







Figure S23. ¹³C-NMR of compound 9h.



Figure S24. HR-ESI-MS spectra of compound 9h.

 4β -N-[(E)-(5-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4'-demethyl-4-desoxy-podophyllotoxin (**9i**)



Figure S25. ¹H-NMR of compound 9i.







Figure S27. HR-ESI-MS spectra of compound 9i.

 4β -N-[(E)-(5-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (**9j**)



Figure S28. ¹H-NMR of compound 9j.



Figure S29. ¹³C-NMR of compound 9j.



Figure S30. HR-ESI-MS spectra of compound 9j.

 4β -N-[(E)-(5-((4-(4-Nitrophenyl)piperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4'-demethyl-4-desoxy-podophyllotoxin (**9**k)



Figure S31. ¹H-NMR of compound 9k.



Figure S32. ¹³C-NMR of compound 9k.



Figure S33. HR-ESI-MS spectra of compound 9k.

 4β -N-[(E)-(5-((4-(4-Nitrophenyl)piperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (91)



Figure S35. ¹³C-NMR of compound 91.



Figure S36. HR-ESI-MS spectra of compound 91.

 4β -N-[(E)-(5-((4-Phenylpiperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (9m)







Figure S38. ¹³C-NMR of compound 9m.



Figure S39. HR-ESI-MS spectra of compound 9m.

 4β -N-[(E)-(5-((4-(2-Fluorophenyl)piperazin-1-yl)methyl)furan-2-yl)prop-2-en-1-amine]-4-desoxy-podophyllotoxin (**9n**)



Figure S40. ¹H-NMR of compound 9n.



Figure S41. ¹³C-NMR of compound 9n.

Figure S42. HR-ESI-MS spectra of compound 9n.