Enantioselective Total Synthesis and Structural Assignment of Callyspongiolide


Department of Chemistry and Department of Medicinal Chemistry, Purdue University, 560 Oval Drive, West Lafayette, Indiana, 47907, USA

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$^{1}$H and $^{13}$C NMR Spectra of Reported Compounds:

**Figure S1.** $^{1}$H NMR (500 MHz, CDCl$_3$) of crude homoallylic alcohol 7.
Figure S2. $^1$H NMR (500 MHz, CDCl$_3$) of homoallylic alcohol 7.
Figure S3. $^{13}$C NMR (125 MHz, CDCl$_3$) of homoallylic alcohol 7.
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Figure S5. $^{13}$C NMR (125 MHz, CDCl$_3$) of diene 12.
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Figure S7. $^{13}$C NMR (125 MHz, CDCl$_3$) of pyranone 13.
Figure S8. $^1$H NMR (500 MHz, CDCl$_3$) of lactone 14.
Figure S9. $^{13}$C NMR (125 MHz, CDCl$_3$) of lactone 14.
Figure S10. $^1$H NMR (500 MHz, CDCl$_3$) of alcohol 6.
Figure S11. $^{13}$C NMR (125 MHz, CDCl$_3$) of alcohol 6.
Figure S12. $^1$H NMR (500 MHz, CDCl$_3$) of aldehyde 15.
Figure S13. $^{13}$C NMR (125 MHz, CDCl$_3$) of aldehyde 15.
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Figure S15. $^{13}$C NMR (125 MHz, CDCl$_3$) of diol 18.
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Figure S17. $^{13}$C NMR (125 MHz, CDCl$_3$) of sulfide 19.
Figure S18. $^1$H NMR (500 MHz, CDCl$_3$) of TES ether 20.
Figure S19. $^{13}$C NMR (125 MHz, CDCl$_3$) of TES ether 20.
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Figure S32. $^{13}$C NMR (125 MHz, CDCl$_3$) of alkynyl ester 26.
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Figure S34. $^{13}$C NMR (125 MHz, CDCl$_3$) of alkynyl lactone 27.
Figure S35. $^1$H NMR (500 MHz, CDCl$_3$) of cis-lactone 28.
Figure S36. $^{13}$C NMR (125 MHz, CDCl$_3$) of cis-lactone 28.
Figure S37. $^1$H NMR (500 MHz, CDCl$_3$) of alcohol 29.
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Figure S40. $^{13}$C NMR (125 MHz, CDCl$_3$) of carbamate 30.
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Chiral HPLC Chromatograms:

Figure S64. Racemic alcohol 34.

Figure S65. Chiral alcohol (S)-34.