Supplementary Information

Synthesis and Expansion of Bicyclic Enol Ether: A Probable Precursor for the Synthesis of Macrolide (±)-Pyrenophorin

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The compounds (**2-9**) were characterized by ¹H and ¹³C nuclear magnetic resonance (NMR), Fourier transform infrared (FTIR) and elementary analysis.



Figure S1. FTIR (KBr) spectrum of compound 3.

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Substance:		D-1		
Carbon	%	54.52		
Hydrogen	%	9.11		
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Figure S2. Elementary analysis of compound 3.



Figure S3. ¹H NMR (300 MHz, DMSO- d_6) of compound **3**.



Figure S4. ¹³C NMR (75 MHz, DMSO- d_6) of compound **3**.



Figure S5. Mass spectrum of compound 3.



Figure S6. FTIR (KBr) spectrum of compound 4.

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Figure S7. Elementary analysis of compound 4.







Figure S9. ¹³C NMR (75 MHz, CDCl₃) of compound 4.



Figure S10. Mass spectrum of compound 4.



Figure S11. FTIR (film) spectrum of compound 5.







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Figure S13. Elementary analysis of compound 7.



Figure S14. ¹H NMR (300 MHz, CDCl₃) of compound **7**.

Comment	38cmb61
Frequency (MHz)	75.46
Nucleus	13C
Acquisition Time (sec)	1.7225
Number of Transients	1024
Original Points	32500
Points Count	32768
Solvent	CDCI3
Sweep Width (Hz)	18867.92
Temperature (grad C)	27.000



Figure S15. ¹³C NMR (75 MHz, CDCl₃) of compound 7.



Figure S16. DEPT NMR (75 MHz, CDCl₃) of compound 7.



Figure S17. gHSQC of compound 7.



Figure S18. gHMBC of compound 7.



Figure S19. Mass spectrum of compound 7.



Figure S20. FTIR (KBr) spectrum of compounds 8 and 9.



Figure S21. ¹H NMR (300 MHz, CDCl₃) of compounds 8 and 9.



Figure S22. Expansions ¹H NMR (300 MHz, CDCl₃) of compounds 8 and 9.



Figure S23. Expansions ¹H NMR (300 MHz, CDCl₃) of compounds 8 and 9.



Figure S24. ¹H NMR (300 MHz, CDCl₃) of compound 9.



Figure S25. ¹H NMR (300 MHz, DMSO- d_6) of compound 9.



Figure S26. ¹³C NMR (75 MHz, CDCl₃) of compound 9.



Figure S27. 13 C NMR (75 MHz, DMSO- d_6) of compound 9.



Figure S28. DEPT NMR (75 MHz, DMSO-*d*₆) of compound 9.