Supporting Information

for

Isolation and biosynthesis of an unsaturated fatty acid with unusual methylation pattern from a coral-associated bacterium Microbulbifer sp.

Amit Raj Sharma, Enjuro Harunari, Tao Zhou, Agus Trianto and Yasuhiro Igarashi


1D and 2D NMR spectra of 1; $^{13}$C NMR spectra of $^{13}$C-labeled 1
Table of contents

**Figure S1.** UV spectrum of (2Z,4E)-3-methyl-2,4-decadienoic acid (1)
**Figure S2.** High resolution ESI-TOF mass spectrum of 1
**Figure S3.** IR spectrum of 1
**Figure S4.** $^1$H NMR spectrum of 1 (500 MHz, CDCl$_3$)
**Figure S5.** $^{13}$C NMR spectrum of 1 (125 MHz, CDCl$_3$)
**Figure S6.** DEPT135 spectrum of 1 (125 MHz, CDCl$_3$)
**Figure S7.** COSY spectrum of 1 (500 MHz, CDCl$_3$)
**Figure S8.** HSQC spectrum of 1 (500 MHz, CDCl$_3$)
**Figure S9.** HMBC spectrum of 1 (500 MHz, CDCl$_3$)
**Figure S10.** NOESY spectrum of 1 (500 MHz, CDCl$_3$)
**Figure S11.** $^{13}$C NMR spectra of 1 labeled with [1-$^{13}$C]acetate and L-[methyl-$^{13}$C]methionine (125 MHz, CDCl$_3$)
Figure S1. UV spectrum of (2Z,4E)-3-methyl-2,4-decadienoic acid (1)

Figure S2. High resolution ESI-TOF mass spectrum of 1
Figure S3. IR spectrum of 1
Figure S4. $^1$H NMR spectrum of 1 (500 MHz, CDCl$_3$)
Figure S5. $^{13}$C NMR spectrum of 1 (125 MHz, CDCl$_3$)
Figure S6. DEPT135 spectrum of 1 (125 MHz, CDCl₃)
Figure S7. COSY spectrum of 1 (500 MHz, CDCl₃)
Figure S8. HSQC spectrum of 1 (500 MHz, CDCl₃)
Figure S9. HMBC spectrum of 1 (500 MHz, CDCl3)
Figure S10. NOESY spectrum of 1 (500 MHz, CDCl₃)
Figure S11. $^{13}$C NMR spectra of 1 labeled with [1-$^{13}$C]acetate and L-[methyl-$^{13}$C]methionine (125 MHz, CDCl$_3$)