

Supplementary material

Feeding experiment using ^{13}C uniform labeled α -linolenic acid supports the involvement of decarboxylation mechanism to give *cis*-jasmone in *Lasiodiplodia theobromae*.

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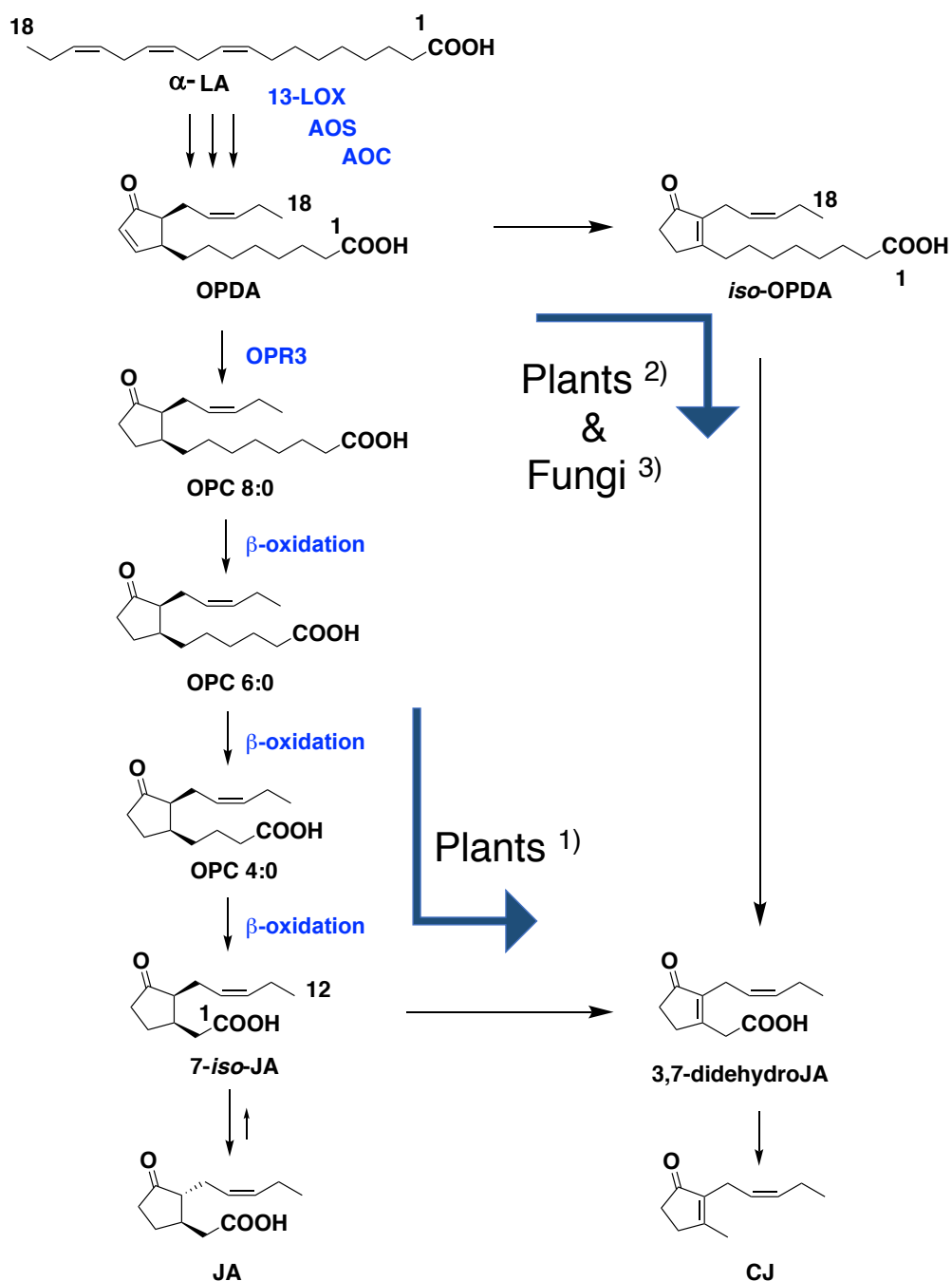


Figure S1. Proposed biosynthetic pathway to produce *cis*-jasmone

LA: linolenic acid, OPDA: 12-oxo-phytodeinoic acid, OPC 8:0 : 3-oxo-2-(2'-[Z]-pentenyl)-cyclopentae-1-octanoic acid, OPC 6:0 : 3-oxo-2-(2'-[Z]-pentenyl)-cyclopentae-1-hexanoic acid : OPC 4:0 : 3-oxo-2-(2'-[Z]-pentenyl)-cyclopentae-1-butanoic acid, JA: jasmonic acid, CJ: *cis*-jasmone, LOX: lipoxygenase, AOS: allene oxide synthase, AOC: allene oxide cyclase.

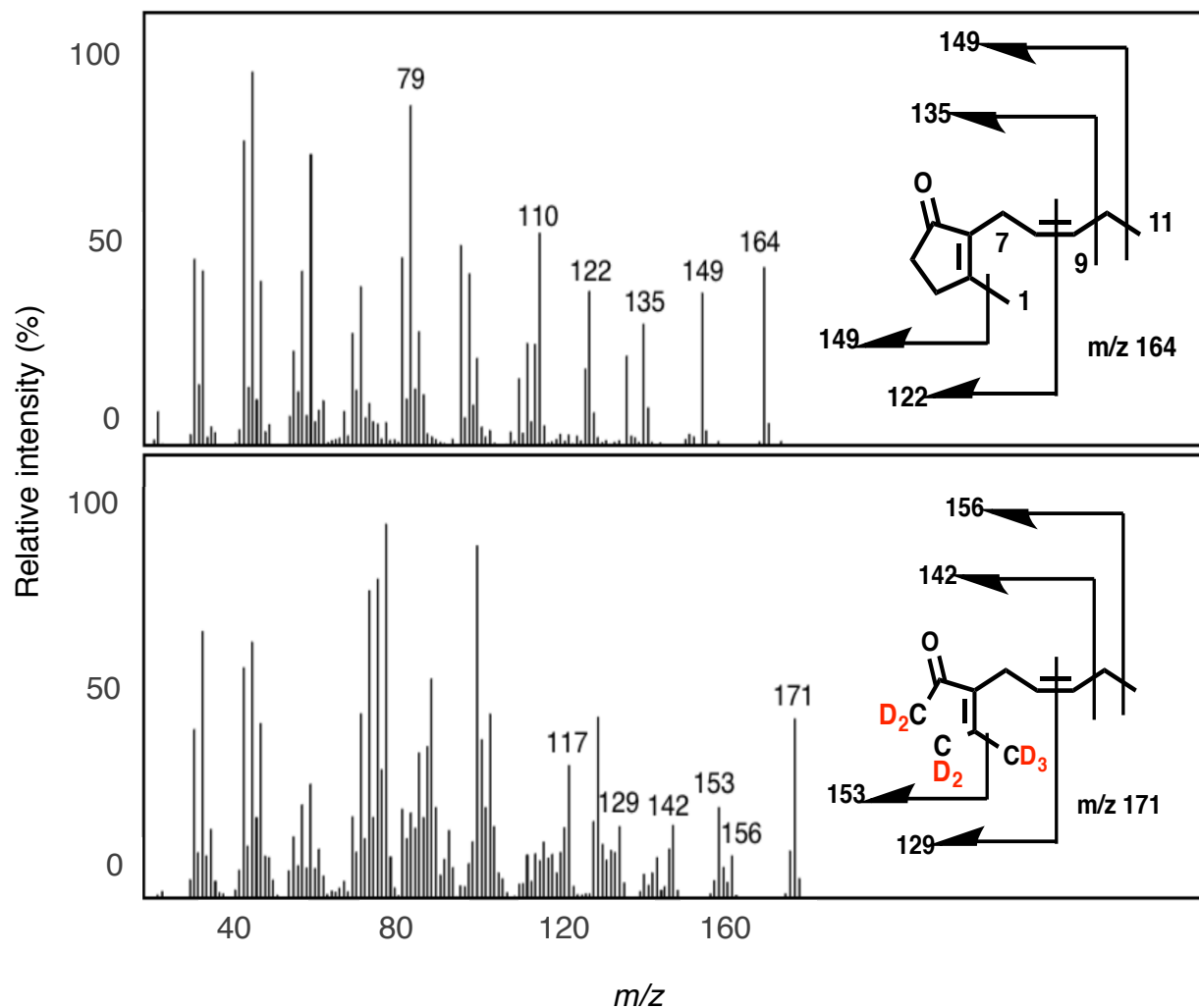


Figure S2. GC-MS analysis of authentic unlabeled and labeled CJs.

GC-MS fragmentation patterns for unlabeled CJ (the upper panale) and [2H_2 -4, 2H_2 -3, 2H_3 -1] CJ (the lower panel).

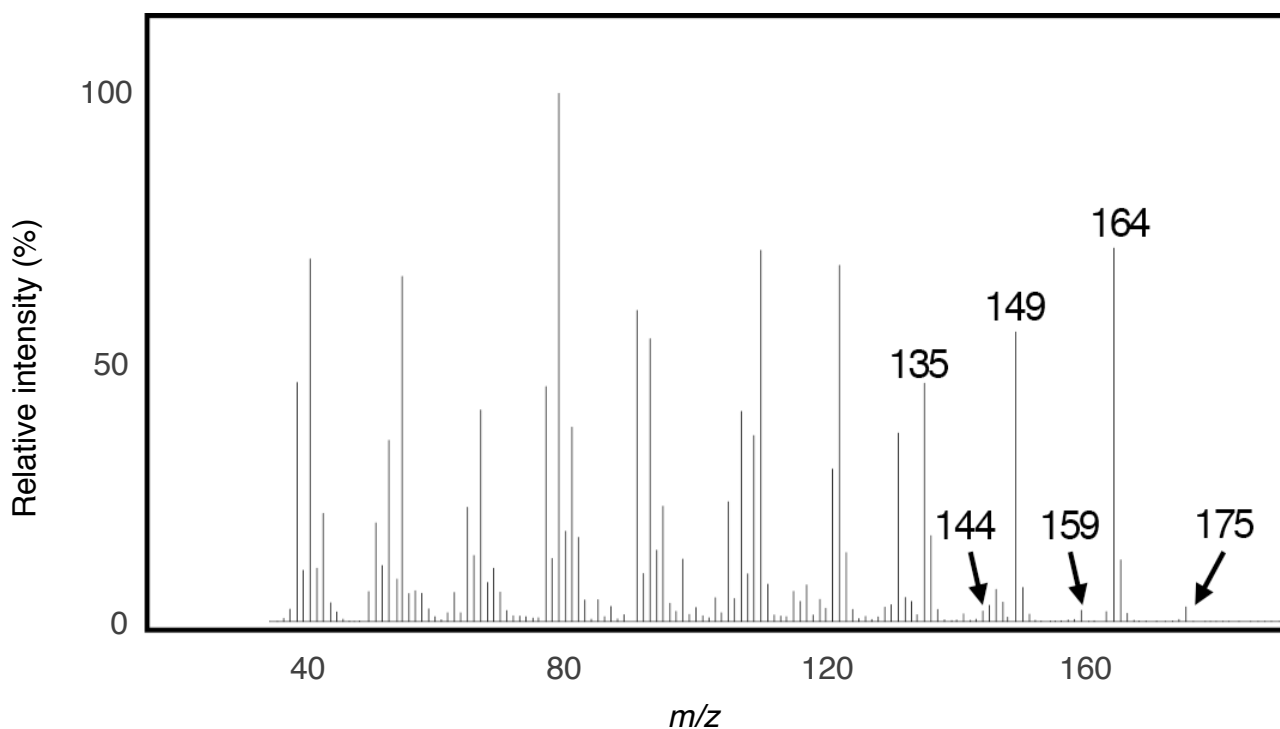
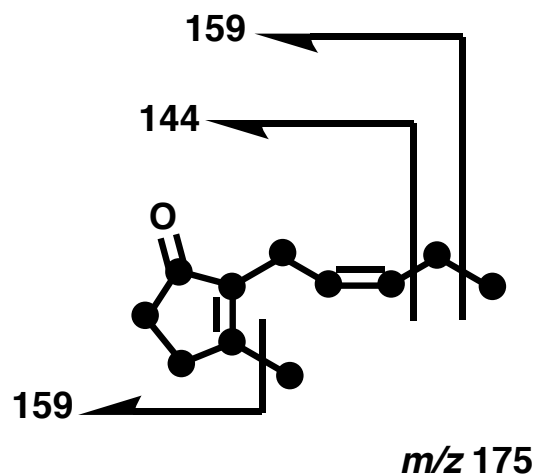


Figure S3. GC-MS analysis of [U- ^{13}C] CJ contaminated with the fungal derived CJ. GC-MS fragmentation patterns for the peak with a retention time of 15.8 min in GC chromatogram of Figure 2B (the upper panel).

Reference

- 1) Koch T, Bandemer K, et al. Biosynthesis of CJ: A pathway for the inactivation and the disposal of the plant stress hormone JA to the gas phase? *Helv Chim Acta*, 1997; 80: 838-850.
- 2) Dabrowska P, and W, *Iso*-OPDA: An early precursor of CJ in plants? *Chembiochem*, 2007; 8: 2281-2285.
- 3) Matsui R, Amano N, et al. Elucidation of the biosynthetic pathway of CJ in *Lasiodiplodia theobromae*. *Scientific Reports*, 2017; 7.