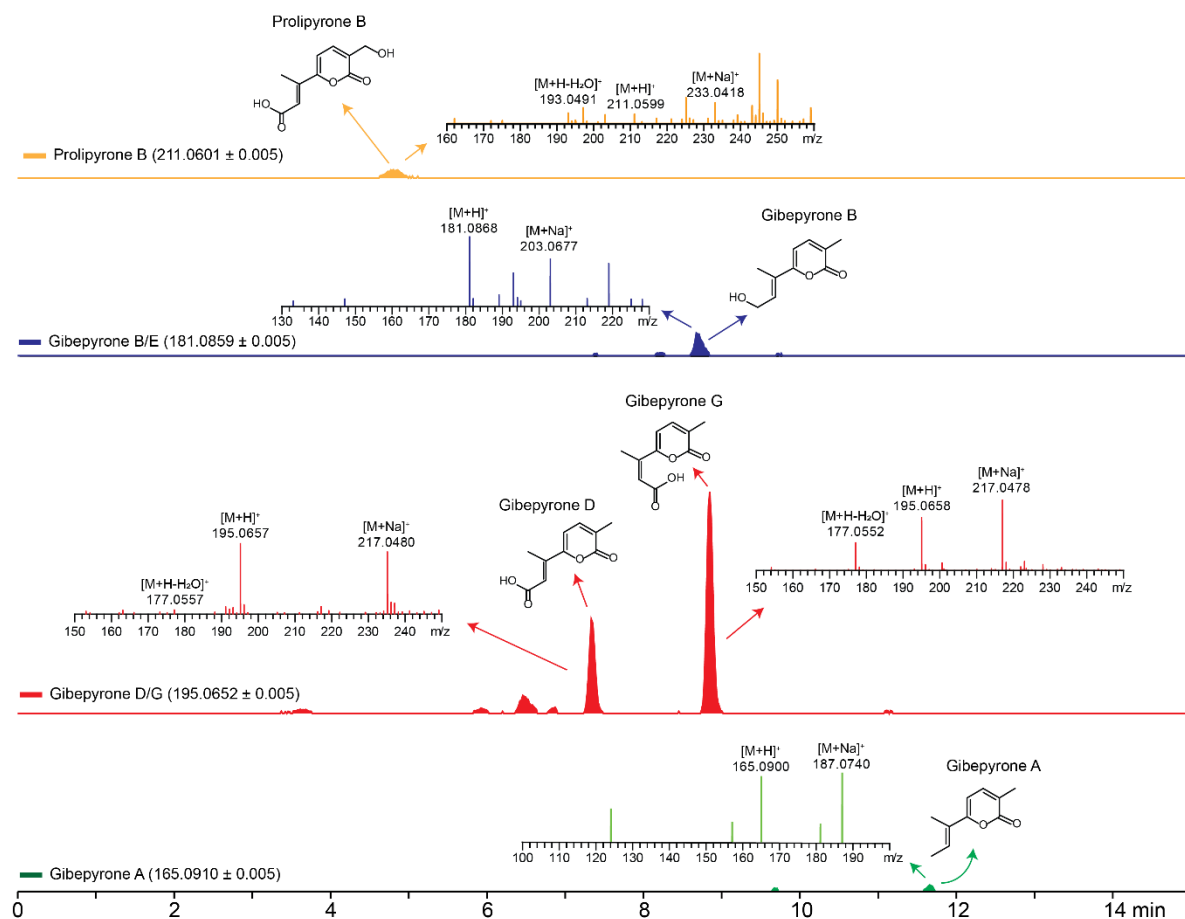
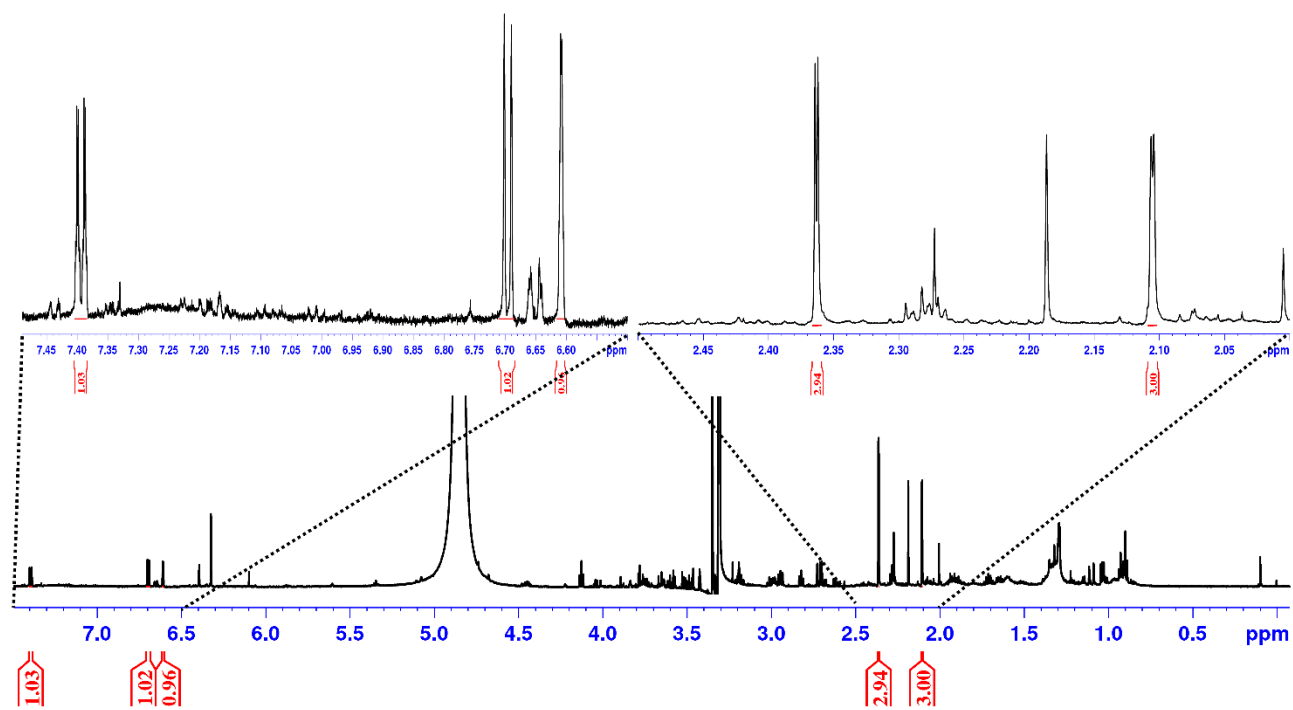


Supplementary table 1. Primers used in the experiments

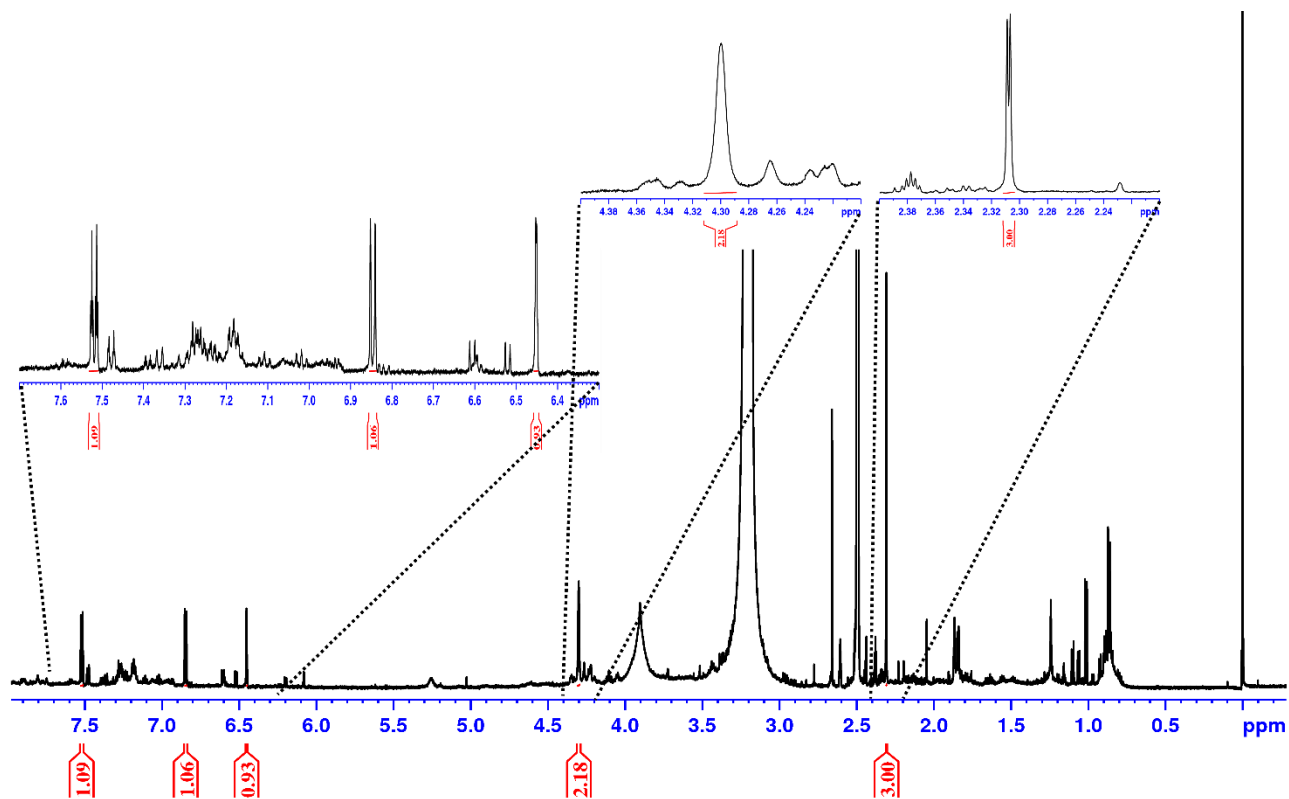
Primer name	Sequence 5' → 3'	Function
PKS8-O1	GGTCTTAAUGGATCTAATTCTAGACCCCTGCATGG	Overexpression
PKS8-O2	GGCATTAAUGTGTGATACAGGATGAACTGAACAGAACA	Overexpression
PKS8-O3	GGACTTAAUGCCTTCTCAAATTCAACCATGGC	Overexpression
PKS8-O4	GGGTTTAAUATCGTTAGCTATACATGATGGTATGTGTGG	Overexpression
PKS8-V1	CCTGGTATGAAATGATTAGCGGAGT	Verification of mutants
PKS8-V2	CTTTCACAAAGTGTGCACCTCTGAA	Verification of mutants
PKS8-V3	ATGGTGACCTCACACGAGTGGC	Verification of mutants
PKS8-V4	AACAACGGCGTGCGCAGTTGAT	Verification of mutants
HYG-58-1	AGCTGCGCCGATGGTTTCTACAA	Verification of mutants
HYG-58-2	GCGCGTCTGCTGCTCCATACAA	Verification of mutants



Supplementary figure 1. Extracted ion chromatograms for the protonated ions [M+H]⁺ of gibepyrone A, B, D, E and prolipyrone B with inserted mass spectra for the individual peaks.



Supplemental figure 2: ¹H NMR spectrum of gibepyronD (600 MHz, 25°C, CD₃OD) including two magnifications over regions of interest. Integrals are shown in red calibrated to 3.00 H for the methyl group at 2.11 ppm. Axis calibrated by TMS = 0.



Supplemental figure 3: ¹H NMR spectrum of prolipyrone B (600 MHz, 50°C, DMSO-d₆) including three magnifications over regions of interest. Integrals are shown in red calibrated to 3.00 H for the methyl group at 2.31 ppm. Axis calibrated by TMS = 0.