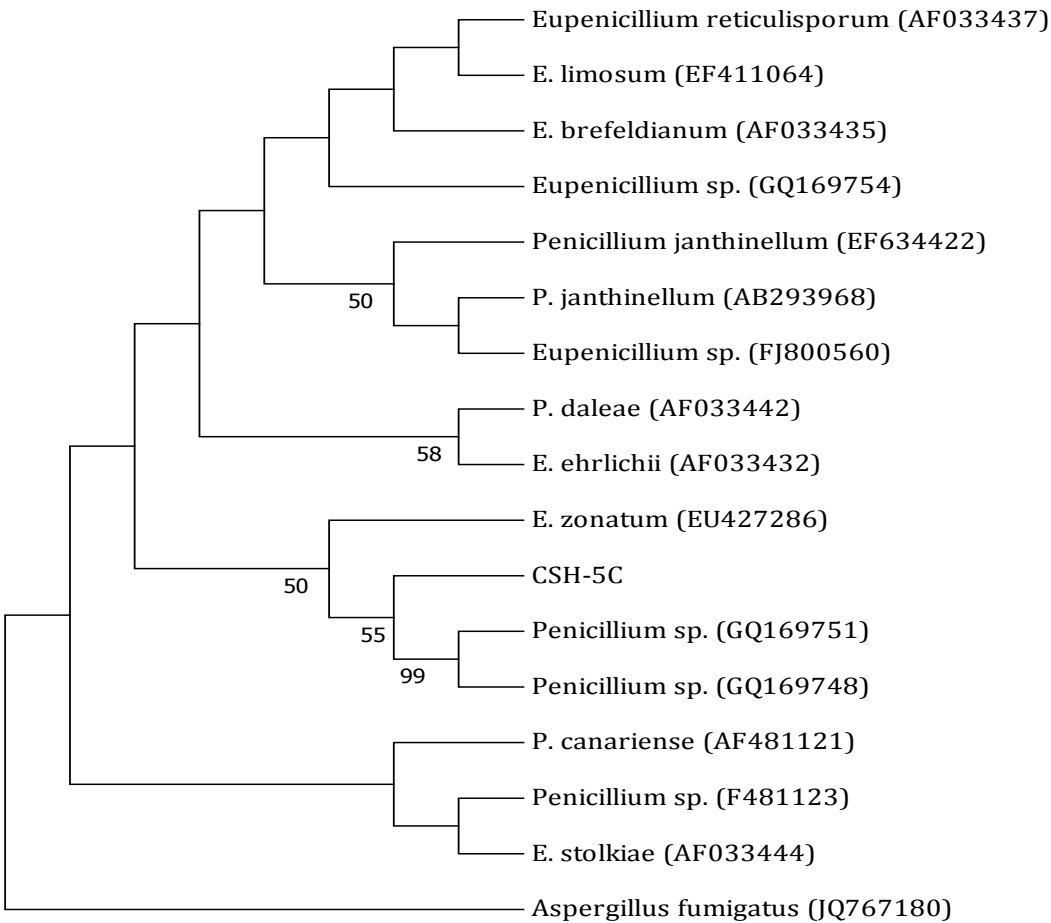
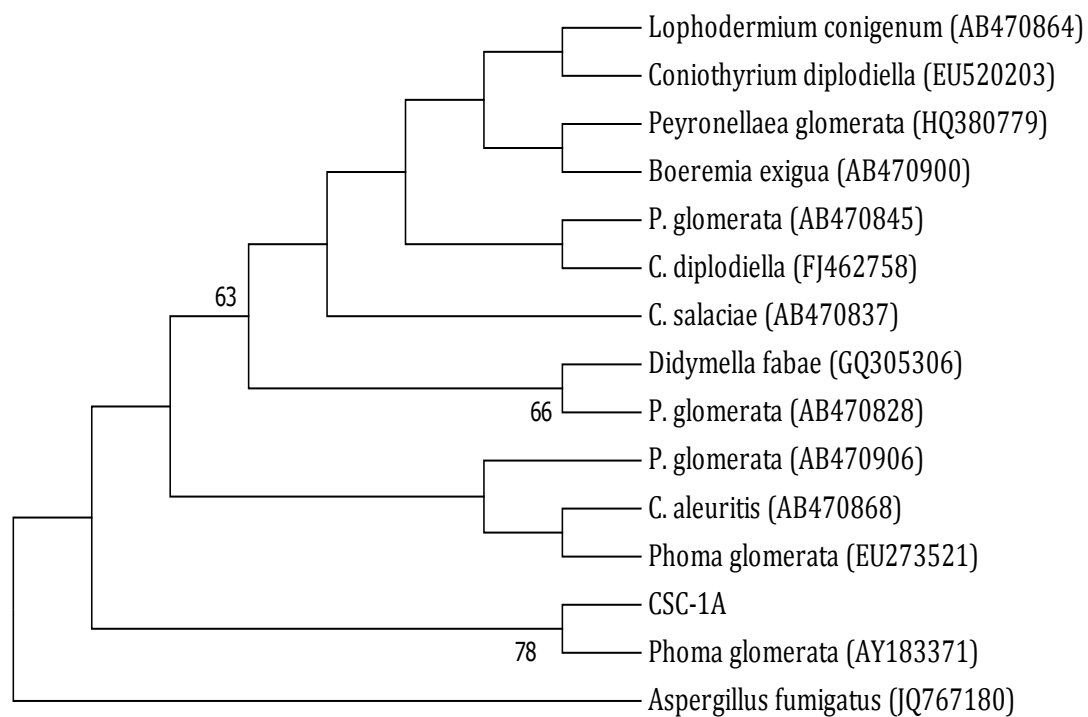


Supplementary Information 1

Identification of endophytic fungal isolates. Endophytic fungi were indentified through the phylogenetic analysis of 18S and 28S rDNA sequences using maximum parsimony method with related fungi. The sequence analysis showed that the endophytic fungal isolates are new strains of *Penicillium* sp., and *Phoma glomerata*.



A.



B.

Supplementary Information 2

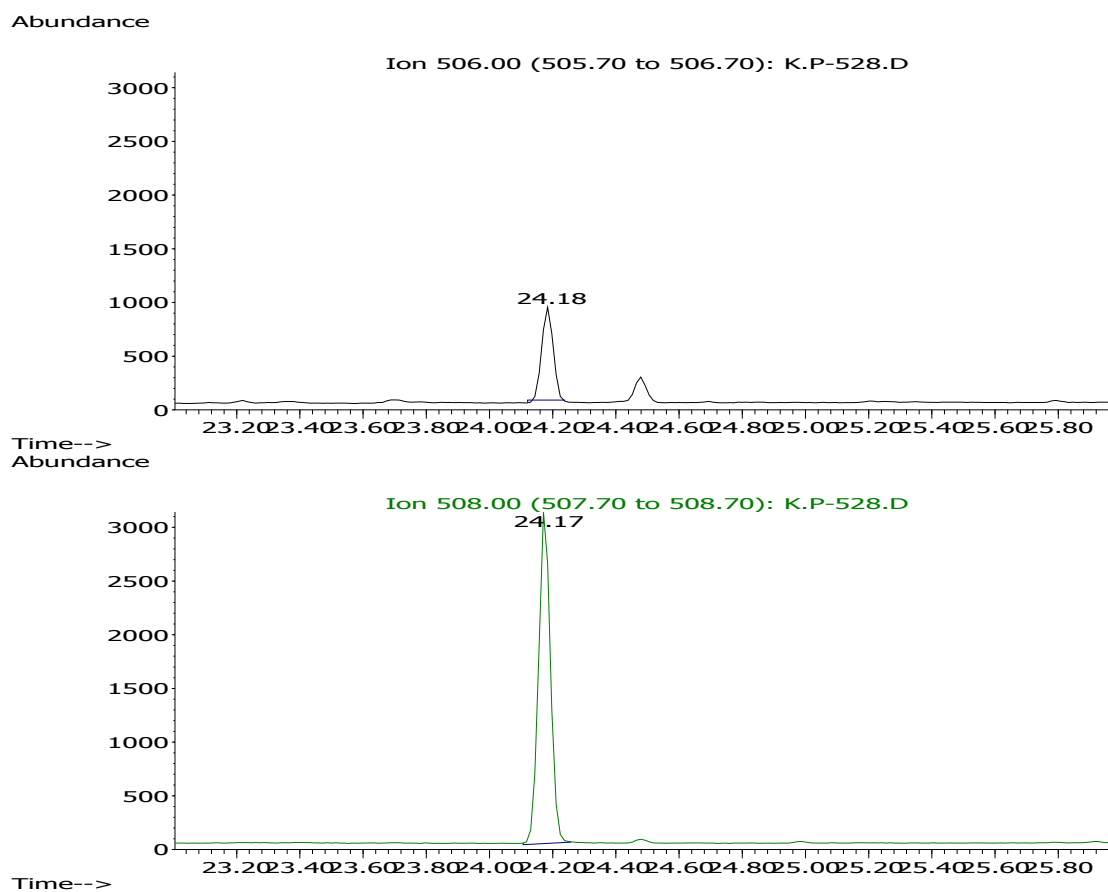
GC/MS-SIM analysis of HPLC fractions of pure culture filtrate of endophyte.

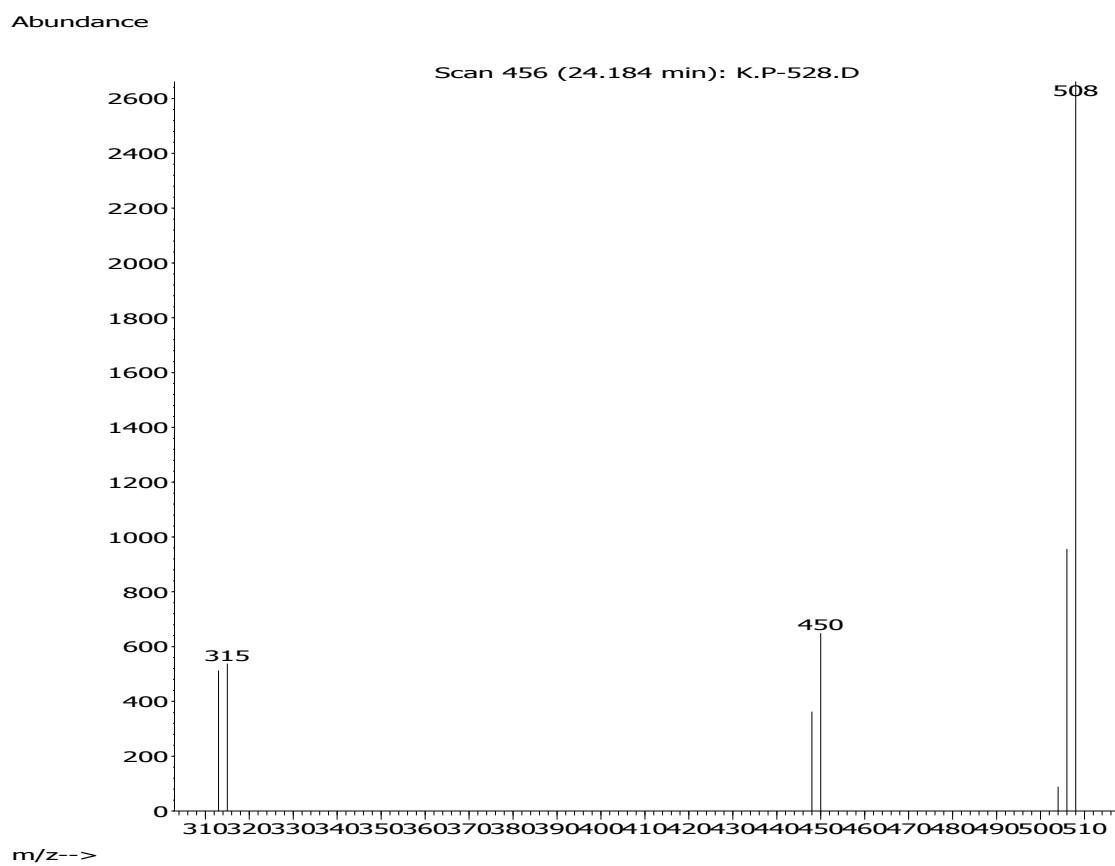
HPLC fraction No /RT	RT ^a	Sample/Standard	GAs ^b	KRI ^c	<i>m/z</i> (% , relative intensity of base peak) ^d		
11~15	24.3	sample	GA ₁	2674	506(100)	491(13)	313(17)
		standard	[² H ₂] GA ₁	2674	508(100)	493(15)	315(19)
11~15	25.48	sample	GA ₃	2692	504(100)	489(8)	370(9)
		standard	[² H ₂] GA ₃	2692	506(100)	491(10)	372(11)
34~35	24.31	sample	GA ₄	2506	284(100)	225(80)	289(70)
		standard	[² H ₂] GA ₄	2506	286(100)	227(76)	291(71)
37~38	23.49	sample	GA ₉	2305	298(100)	270(78)	227(48)
		standard	[² H ₂] GA ₉	2305	300(100)	272(77)	229(48)

^a RT: Retention time (in min); ^b GAs: Gibberellins; ^c KRI: Kovats retention indices; ^d Identified as methyl ester trimethylsilyl ether derivatives by comparison with reference spectra and KRI data as elucidated by Gaskin and MacMillan (1991). Gibberellins are identified with three ions and quantified by first ion with comparison of labelled standards. About 50 µL of CF extract of CSH-6H results in various HPLC fractions.

Supplementary Information 3

GC/MS Peaks of the CF of the Endophyte and standard

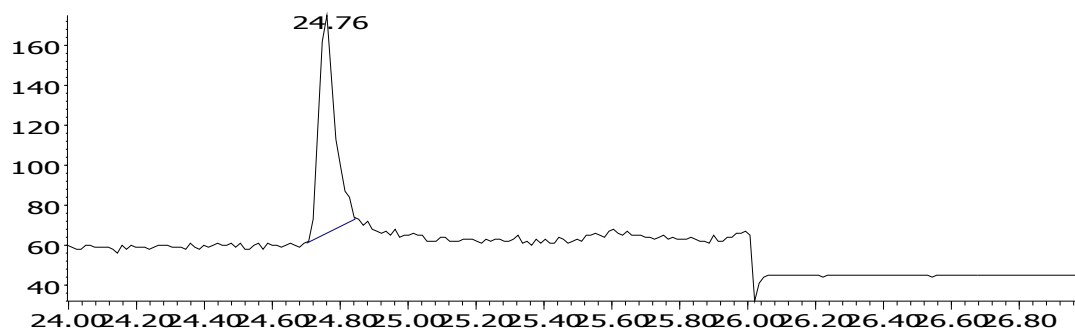
GA₁ Spectra



GA3 Spectra

Abundance

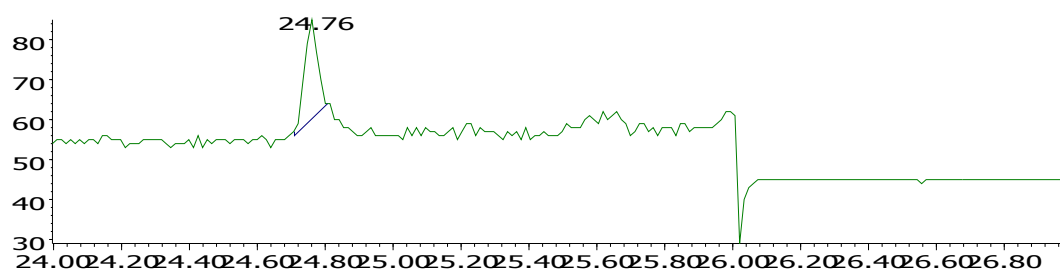
Ion 504.00 (503.70 to 504.70): O.Q.260.D



Time-->

Abundance

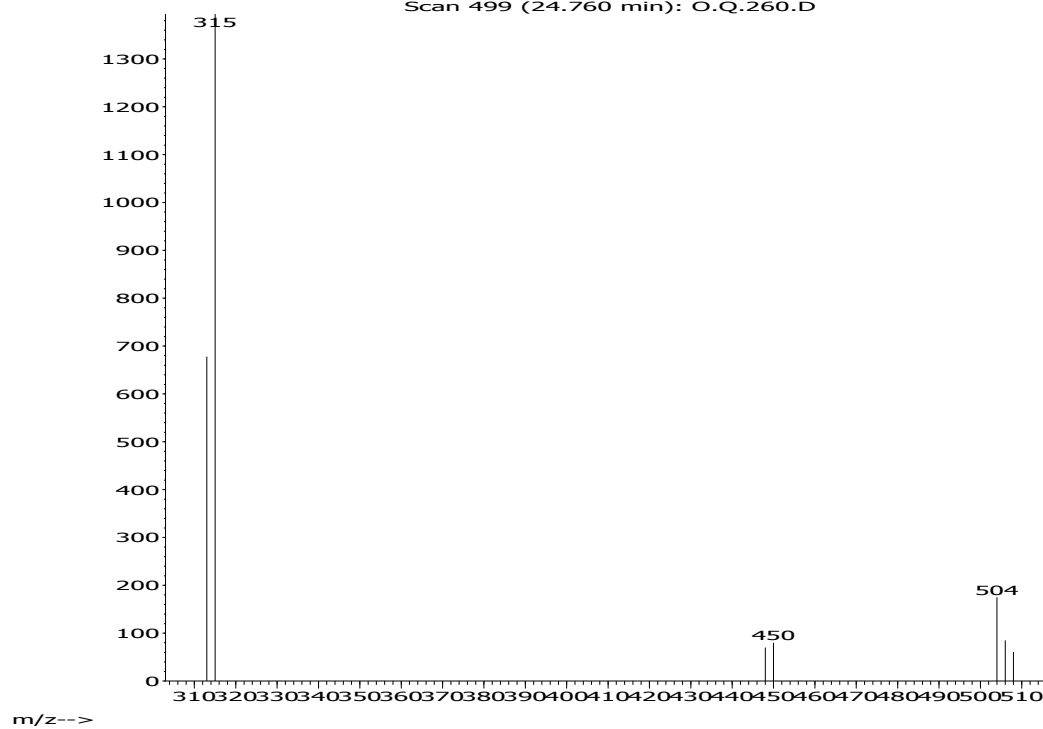
Ion 506.00 (505.70 to 506.70): O.Q.260.D



Time-->

Abundance

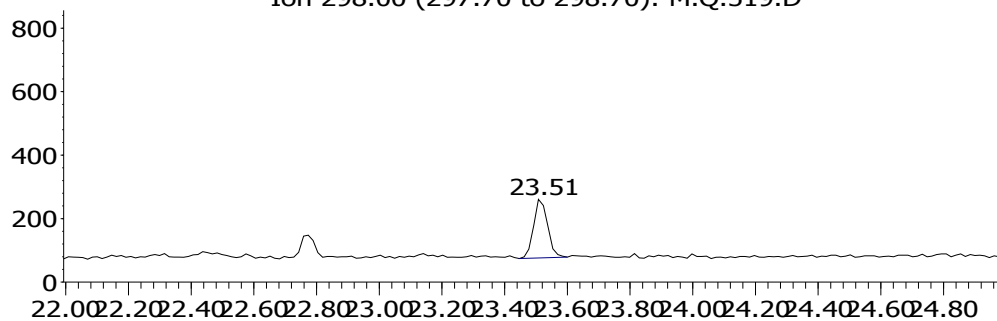
Scan 499 (24.760 min): O.Q.260.D



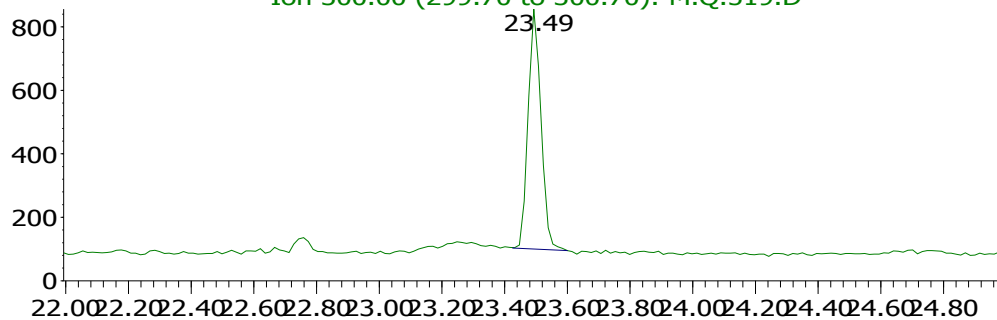
GA₉ Spectra

Abundance

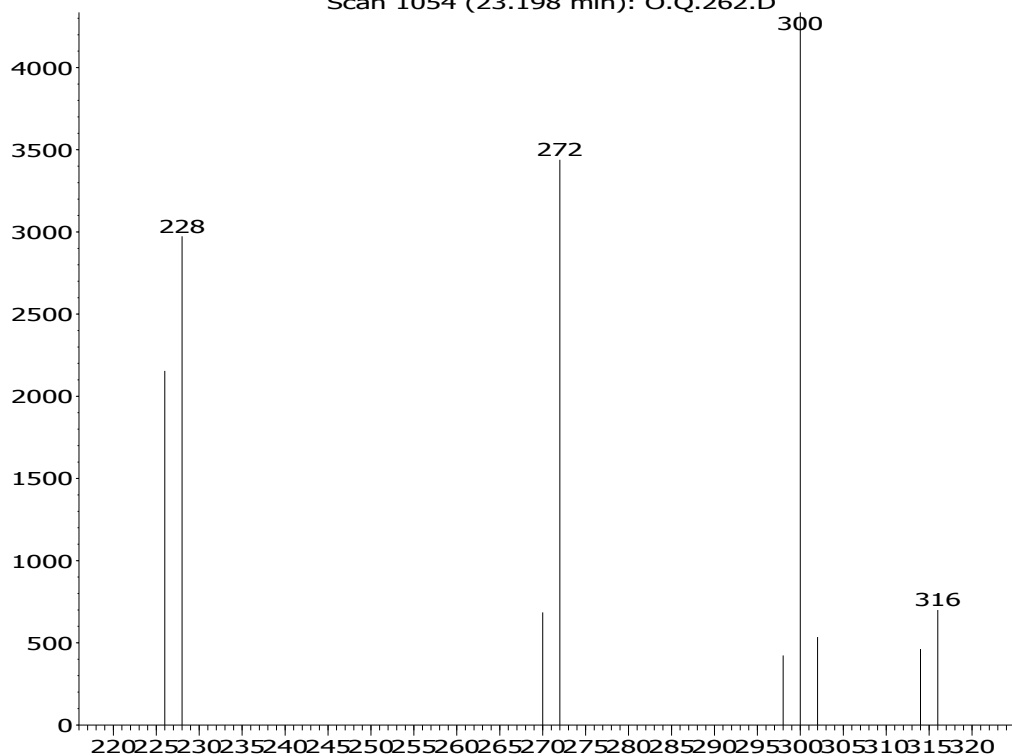
Ion 298.00 (297.70 to 298.70): M.Q.519.D

Time-->
Abundance

Ion 300.00 (299.70 to 300.70): M.Q.519.D

Time-->
Abundance

Scan 1054 (23.198 min): O.Q.262.D



m/z-->

Supplementary Information 4

GC/MS–SIM conditions used for analysis and quantification of the Gibberellins.

Equipment	Hewlett-Packard 6890, 5973N Mass Selective Detector
Column	HP-1 capillary column (30 m × 0.25 mm i.d. 0.25µm film thickness) (J & W Scientific Co., Folsom, CA, USA)
Carrier gas	He (40 Mℓ/min.); head pressure of 30 kPa
Source temperature	250 °C
Oven conditions	GA: 60 °C (1 min.) → 15 °C /min. → 200 °C (1 min.) → 5 °C /min. → 285 °C (5 min.)
Injector temperature	200 °C
Ionizing voltage	70 ev