Antitumor anthraquinones from an Easter Island sea anemone: Animal or bacterial origin?

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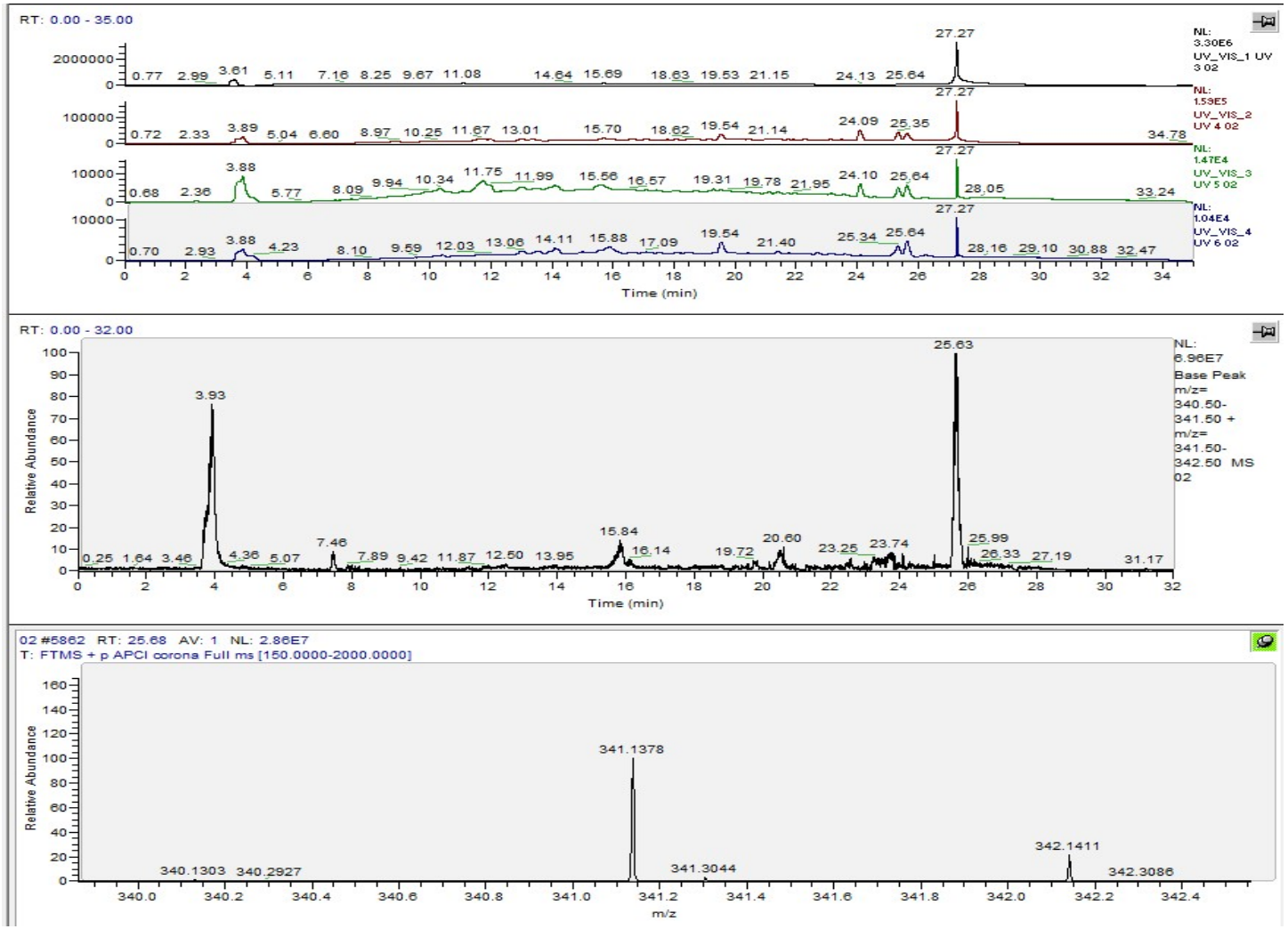
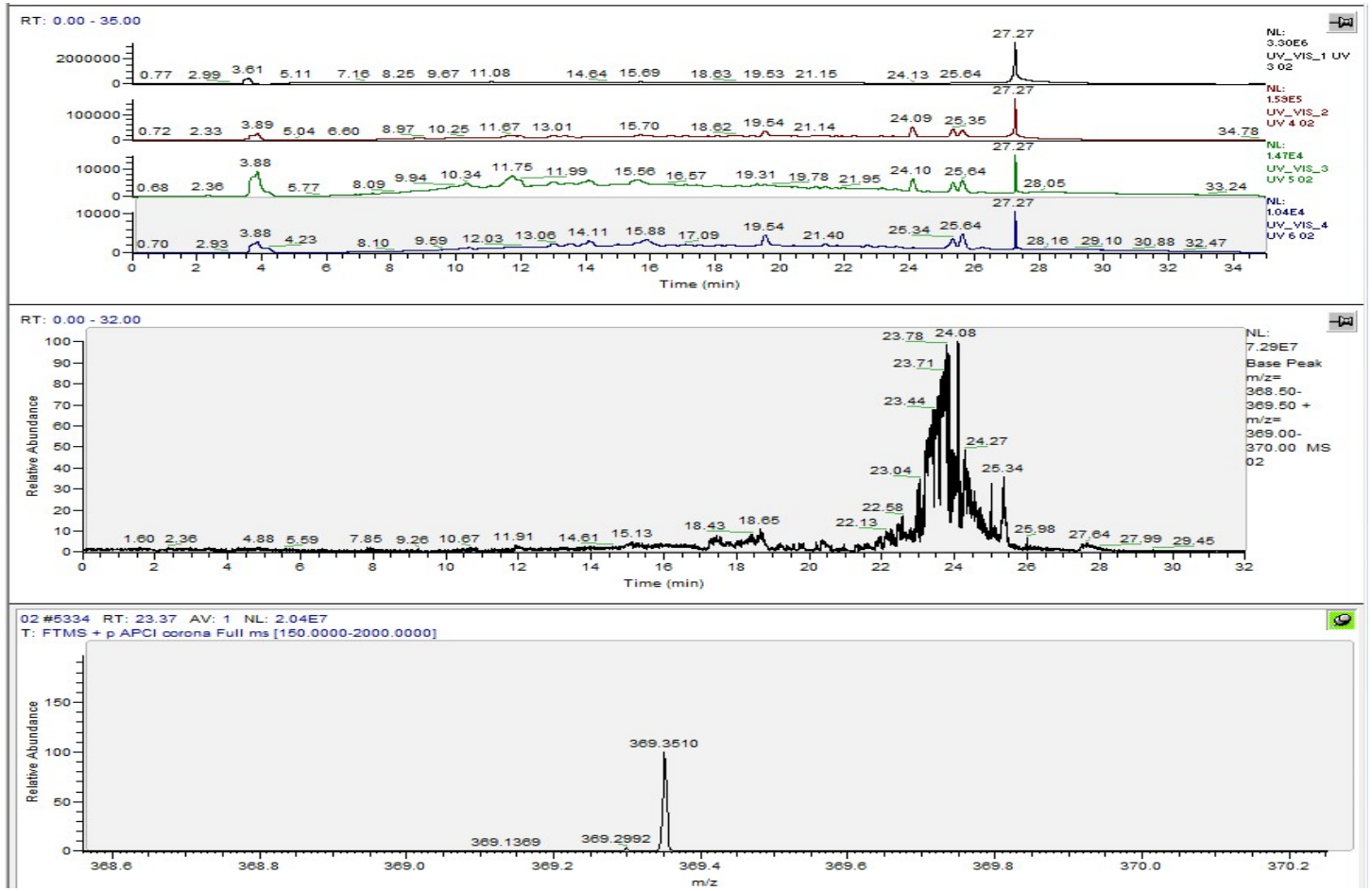
Supplementary Data Index.

Table I. Isolated actinobacterial symbionts from the Easter Island sea anemone *Gyractis sesere*.

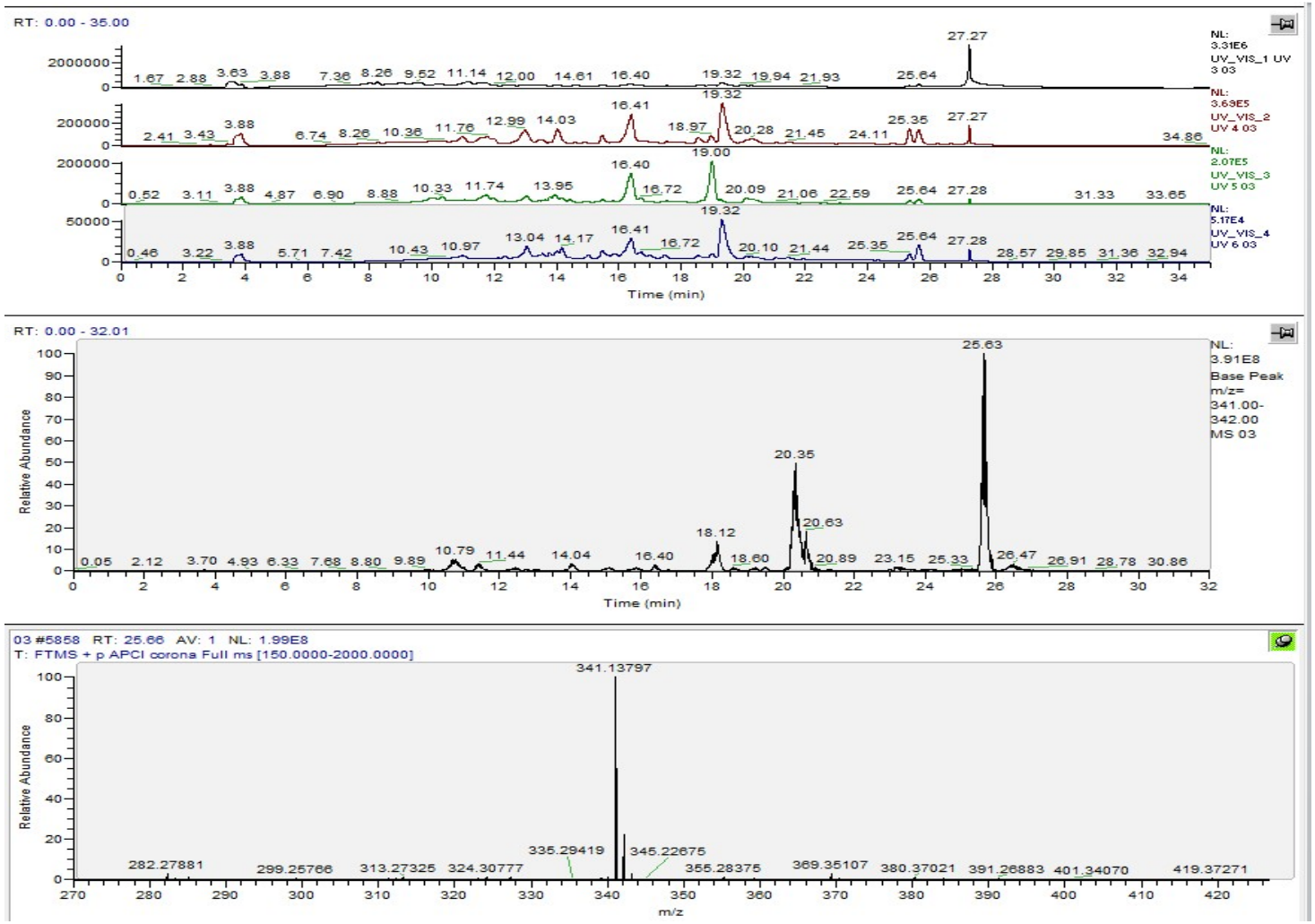
Media	Sample	Closest type strain obtained from BLAST	Sequence length	Access number NCBI	% identity
BSEM	SN26_101.1	*Cellulosimicrobium funkei* DSM 16025 ^{T}	1476	MH299430	99
BCM	SN26_23.1	*Arthrobacter koreensis* JCM 12361^{T}	1338	MH299428	99
BCM	SN26_6.1	*Arthrobacter arilaitensis* DSM 16368 ^{T}	1481	MH299429	98
BTM	SN26_12.1	*Rhodococcus soli DSM 46662^{T}*	1475	MH299445	99
BCM	SN26_22.1	*Streptomyces drozdowiczii* JCM 13580 ^{T}	1336	MH299485	99
BTM	SN26_13A.1	*Dietzia cinnamea* DSM 44904 ^{T}	1471	MH299435	99
BTM	SN26_14.1	*Verrucosispora maris* DSM 45365 ^{T}	1538	MK332504	99
BTM	SN26_25.1	*Micromonospora rifamycinica DSM 44983 ^{T}*	1417	MH299468	99
SIMA1	SN26_100.1	*Micromonospora purpureochromogenes DSM 43821 ^{T}*	1364	MH299466	98
BTM	SN26_110.1	*Micromonospora echinospora DSM 43816 ^{T}*	1330	MH299467	99



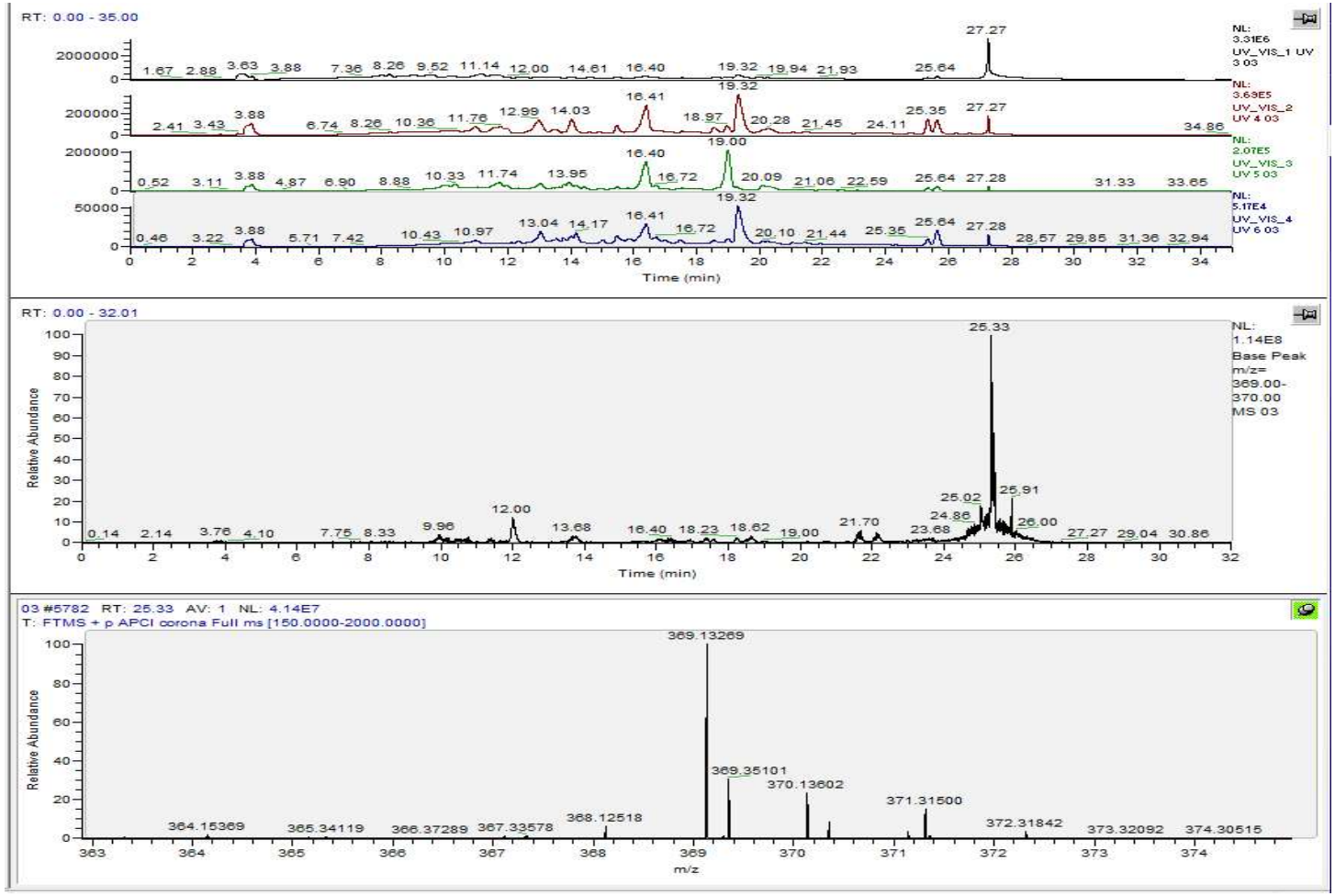
Suppl. Fig. 1. BPC extraction of Sea anemone chloroform extract for Lupinacidin A **(1)** (MW: 340).



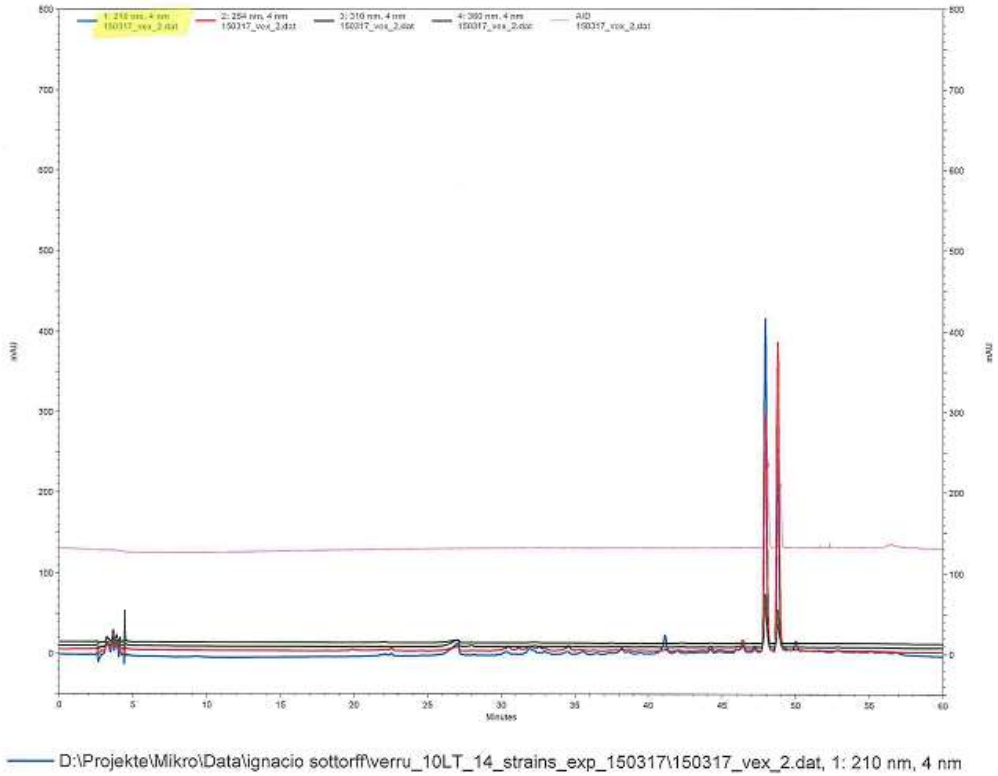
Suppl. Fig. 2. BPC extraction of Sea anemone- Chloroform extract for Galvaquinone B **(2)** (MW: 368).



Suppl. Fig. 3. BPC extraction of Lupinacidin A (**1**) (MW: 340) from the crude extract of *Verrucosispora* sp. SN26_14.1 isolated from the Easter Island sea anemone, *Gyractis sesere.*

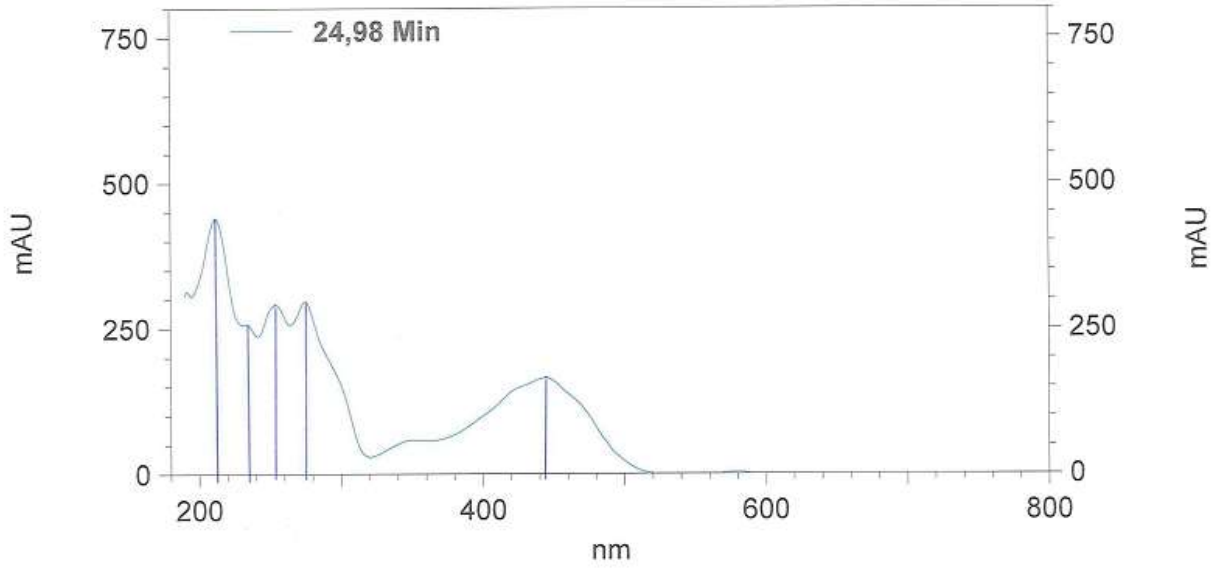


Suppl. Fig. 4. BPC extraction of Galvaquinone B (**2**) (MW: 368) from the crude extract of *Verrucosispora* sp. SN26_14.1 isolated from the Easter Island sea anemone, *Gyractis sesere.*

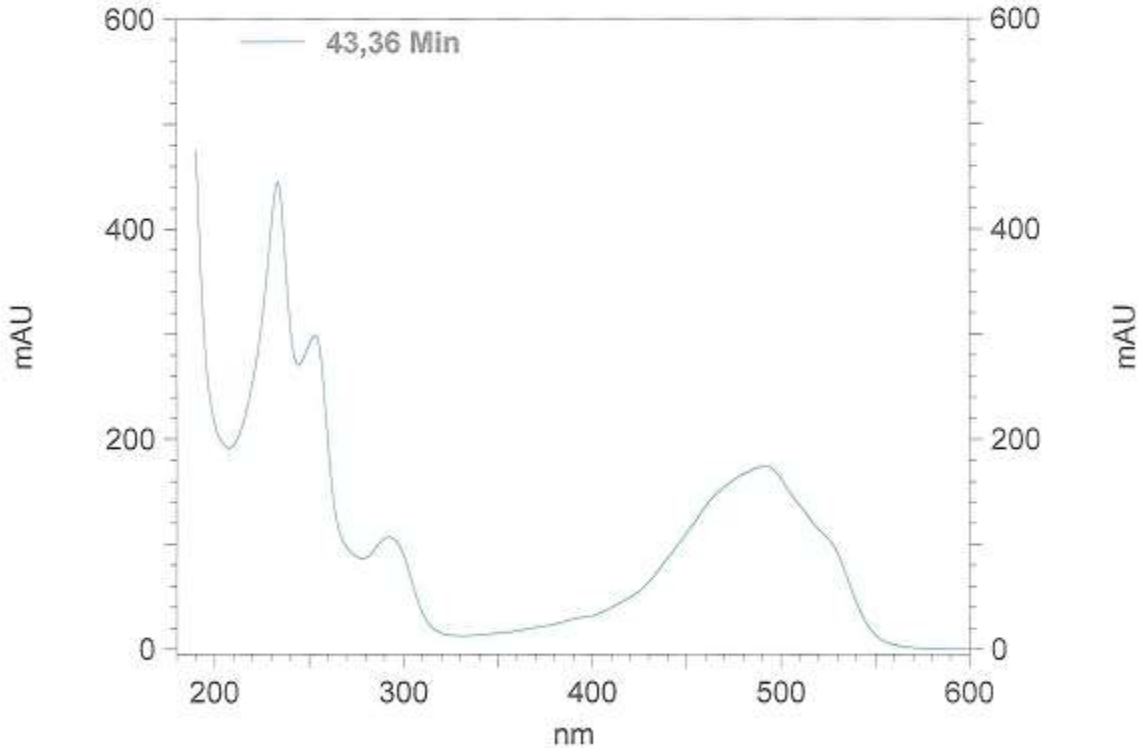


Suppl. Fig. 5. Fraction 2 Chromatogram of the crude extract of *Verrucosispora sp.* SN26_14.1, showing the elution of the Lupinacidin A (**1**) and Galvaquinone B (**2**).

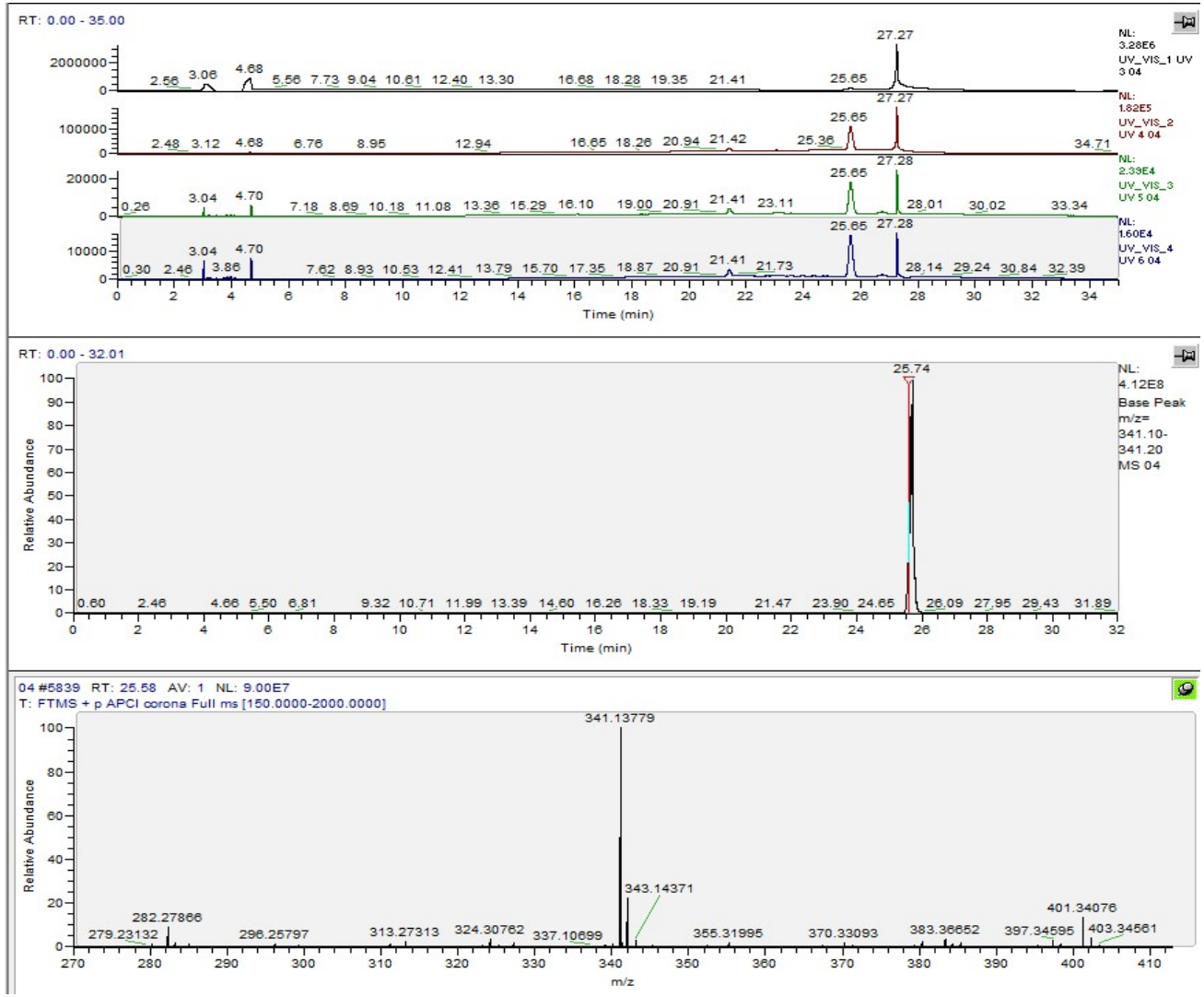
Suppl. Fig. 6. Purified Galvaquinone B (**2**) (left) and Lupinacidin A (**1**) (right) obtained from the sea anemone symbiont, *Verrucosispora* sp. SN26_14.1.



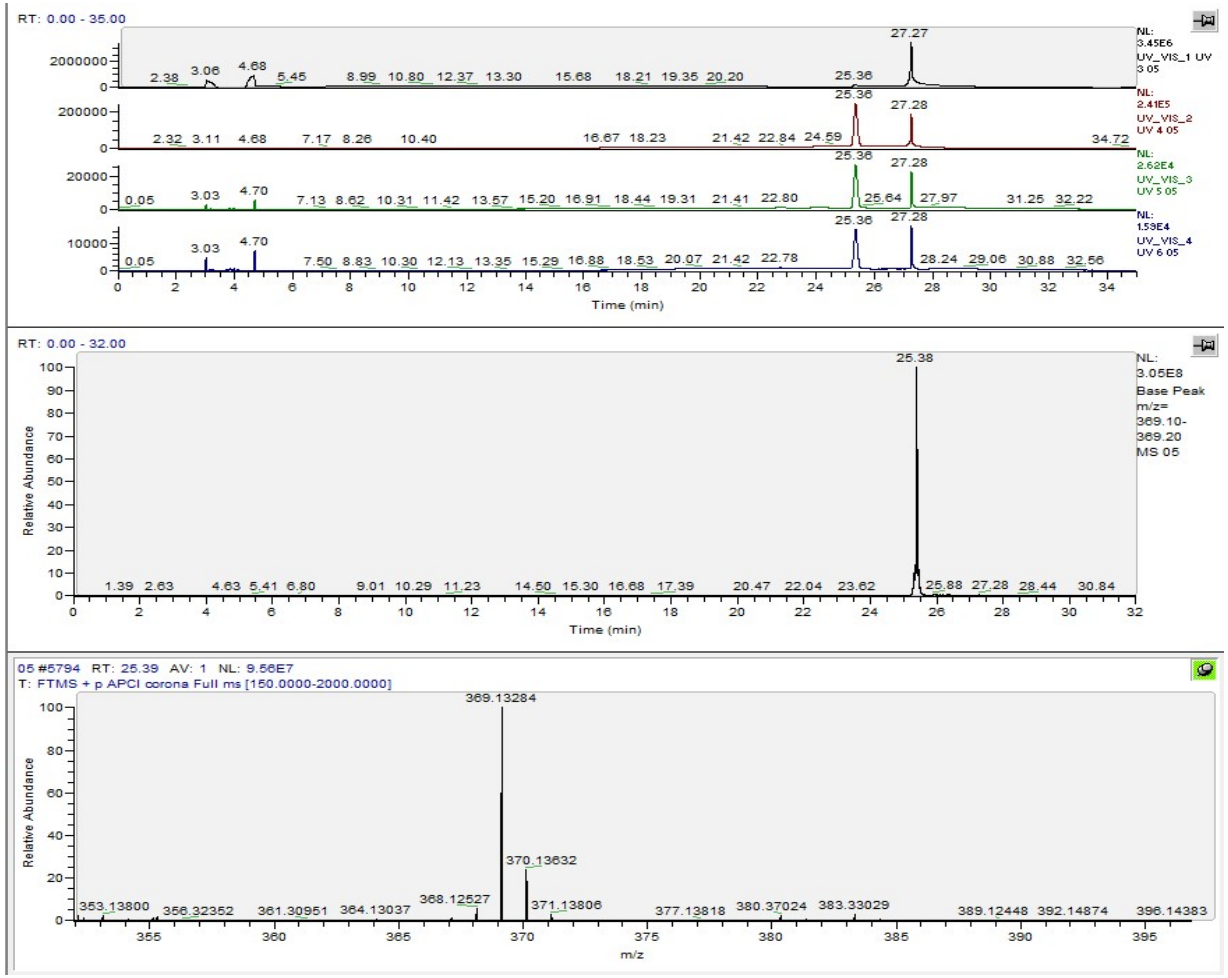
Suppl. Fig. 7. UV profile for Lupinacidin A (**1**).



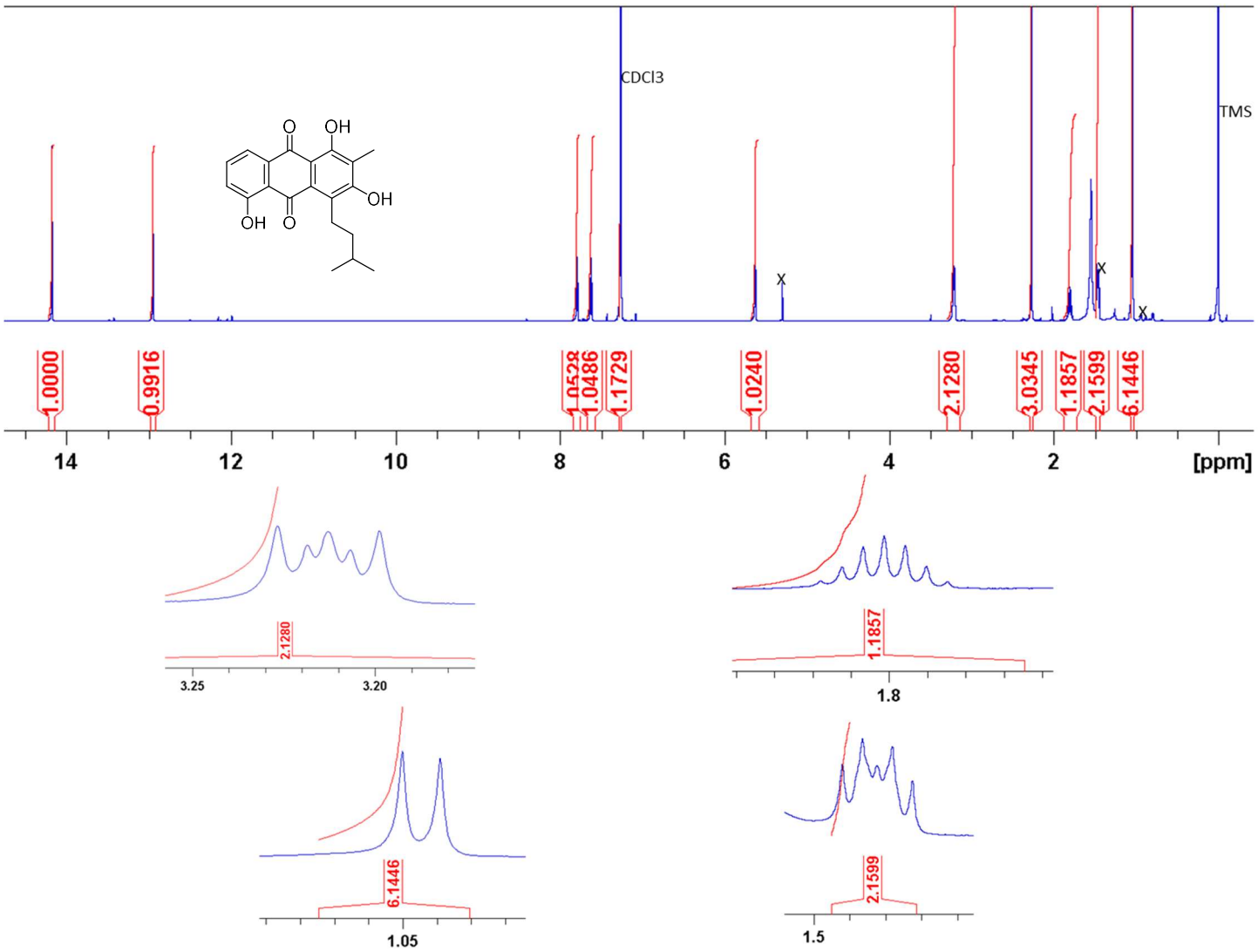
Suppl. Fig. 8. UV profile for Galvaquinone B (**2**).



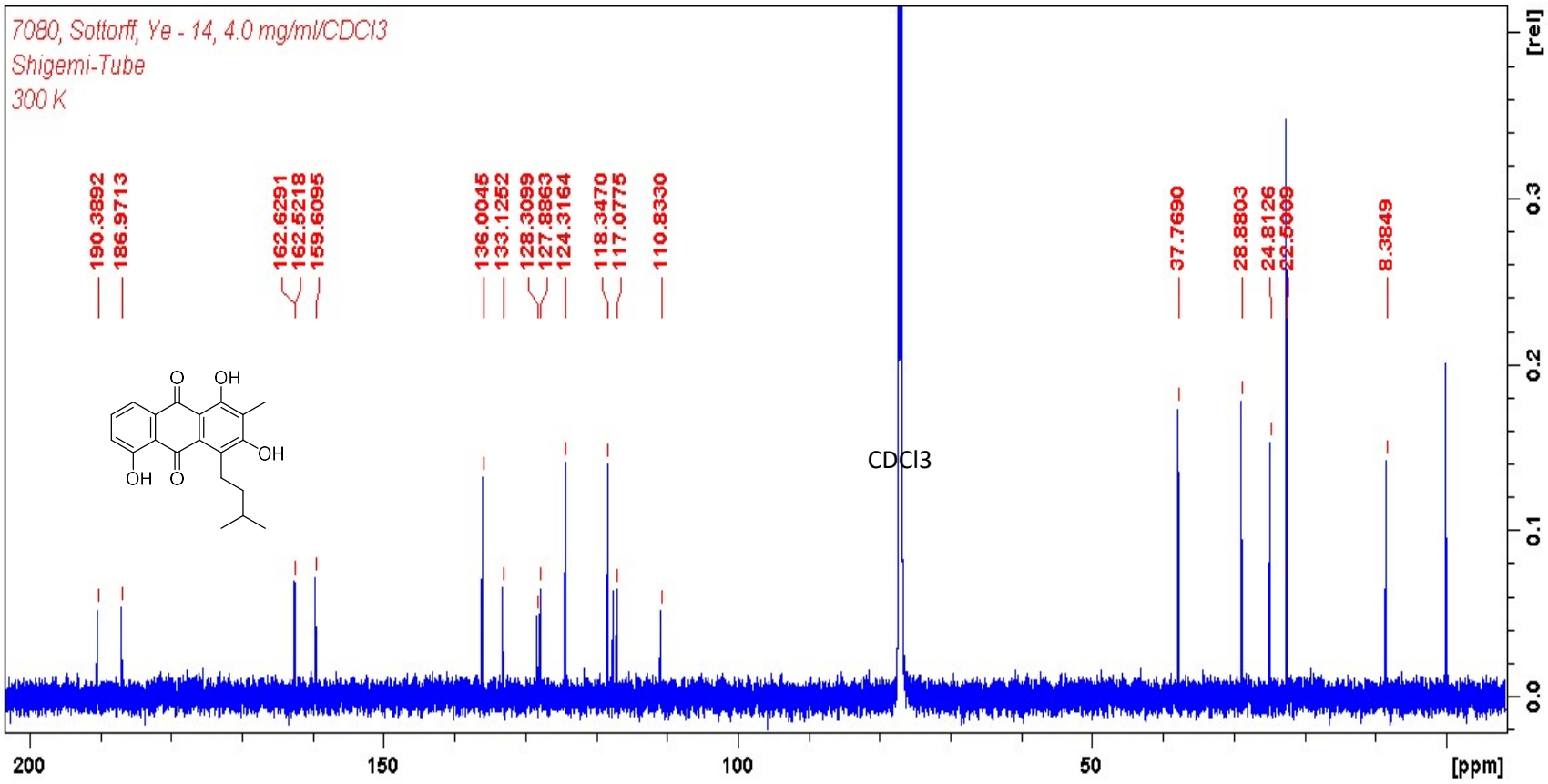
Suppl. Fig. 9. HRLCMS for Lupinacidin A (**1**).



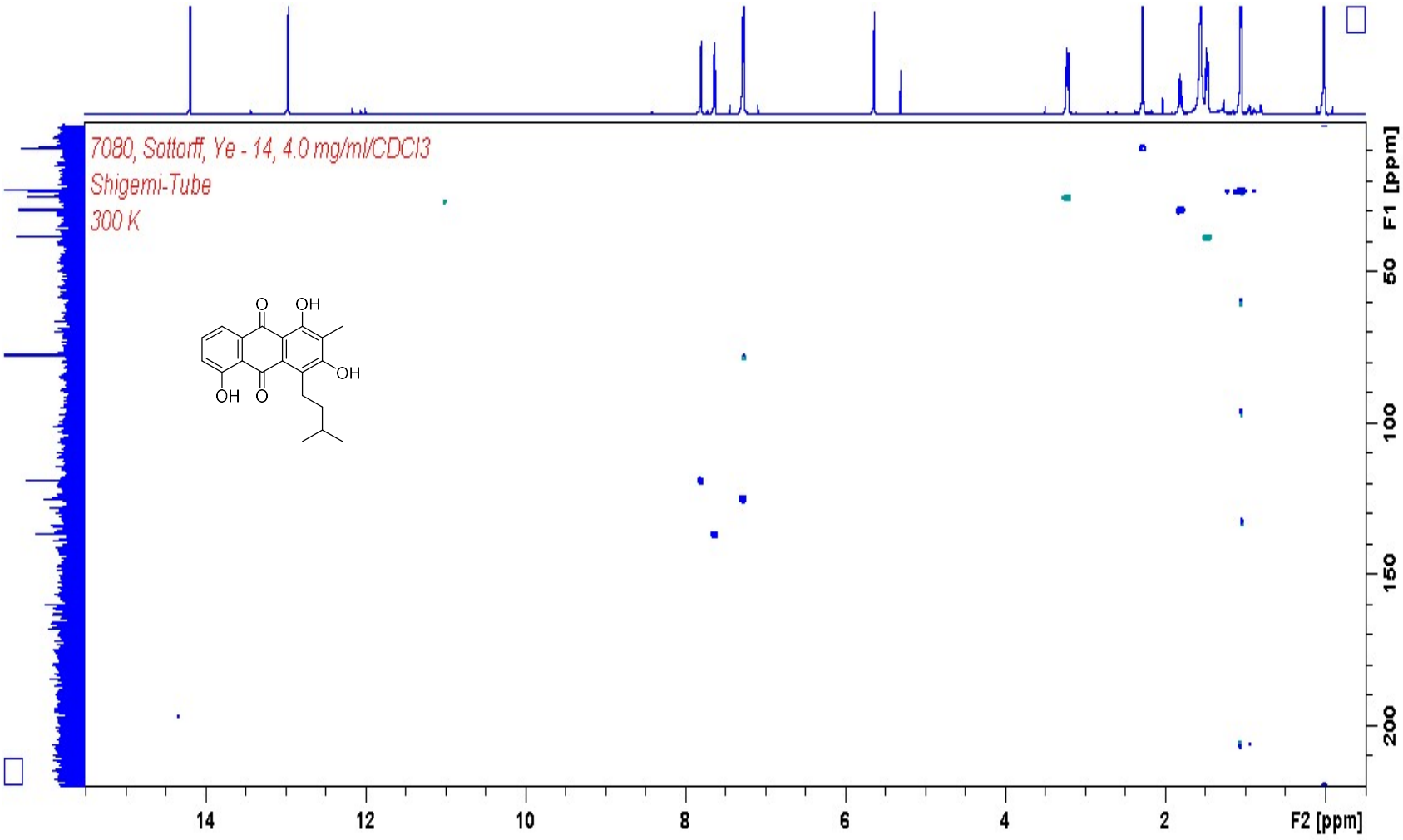
Suppl. Fig. 10. HRLCMS for Galvaquinone B (**2**).



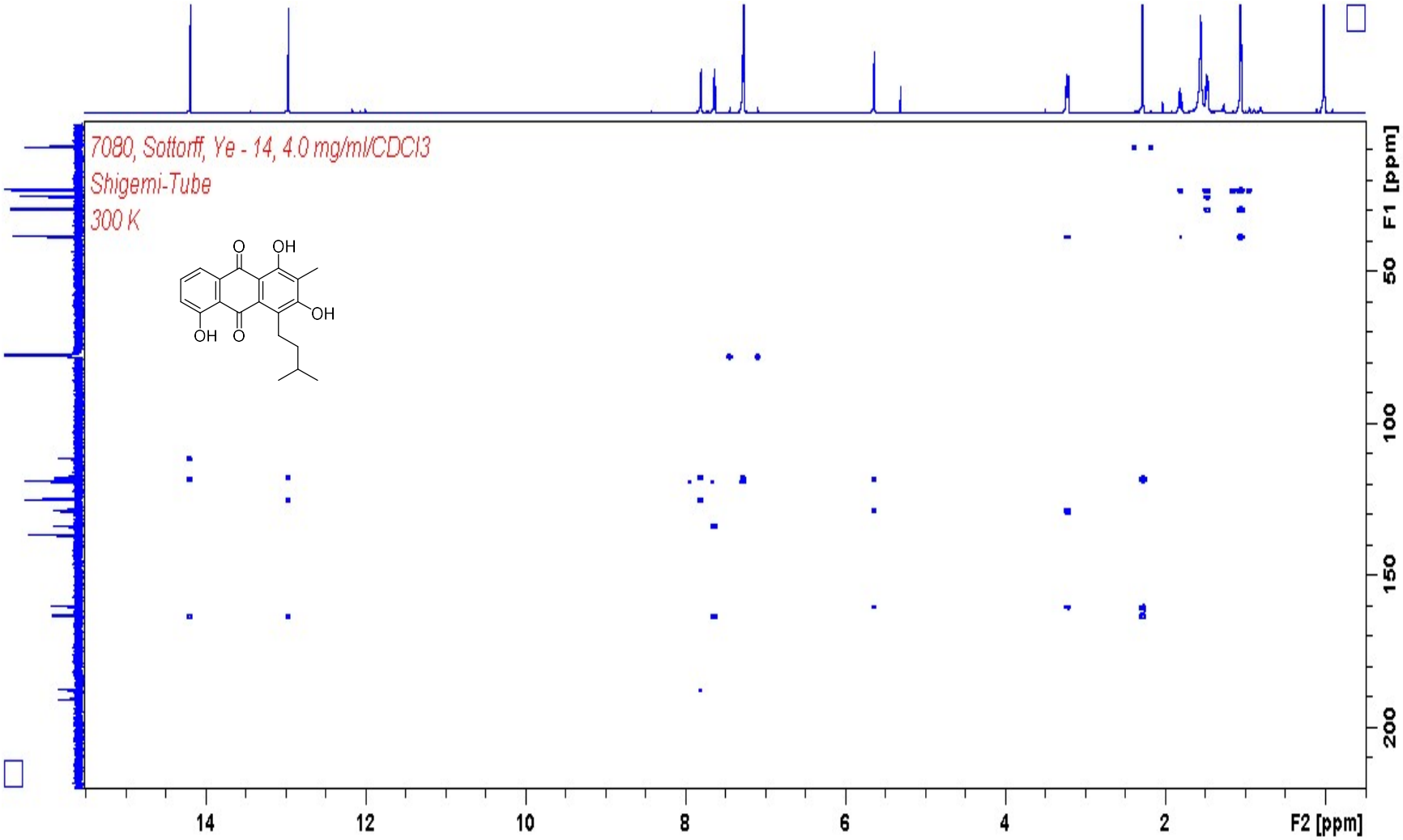
Suppl. Fig. 11. ^{1}H Lupinacidin A (**1**).



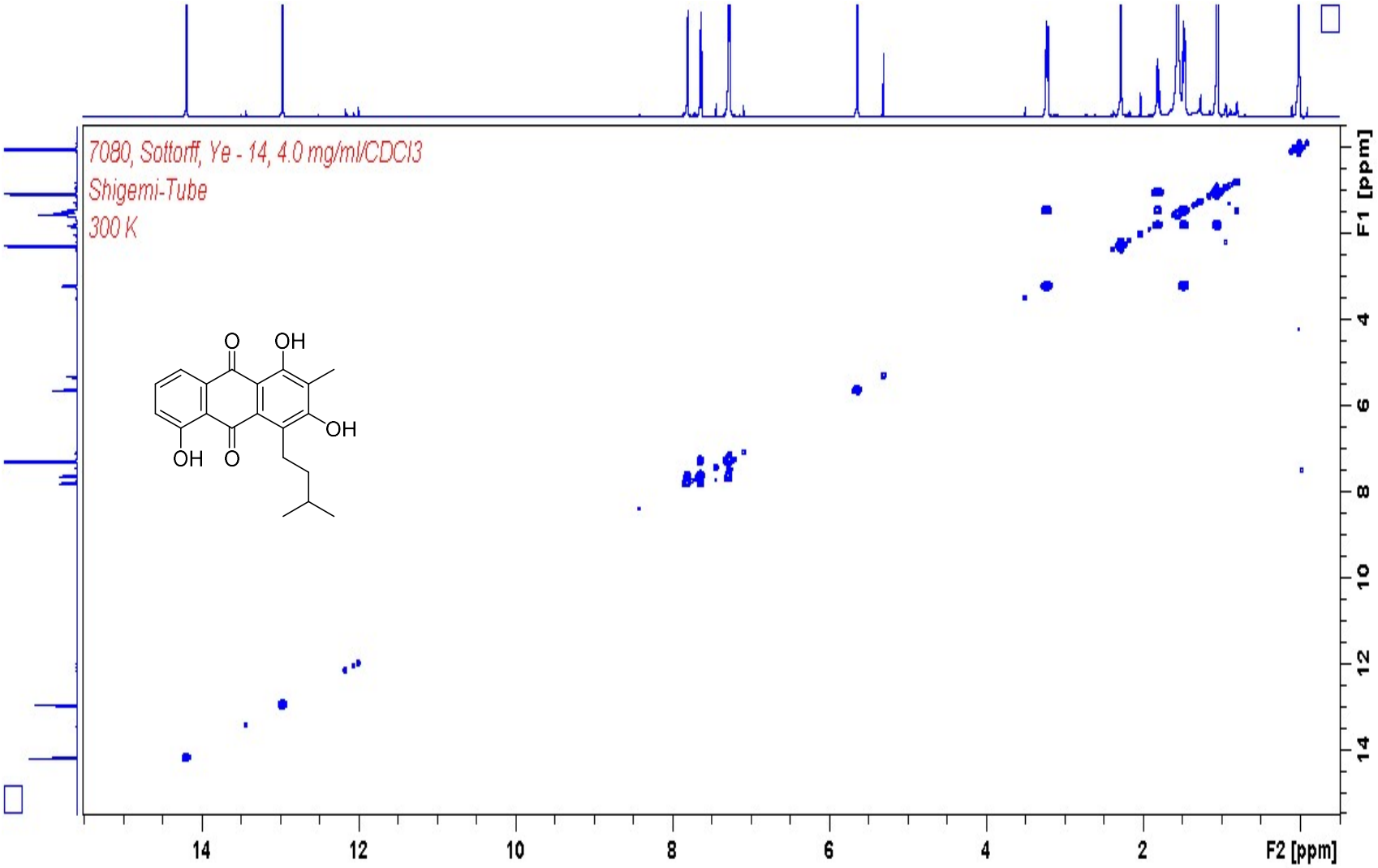
Suppl. Fig. 12. ^{13}C Lupinacidin A (**1**).



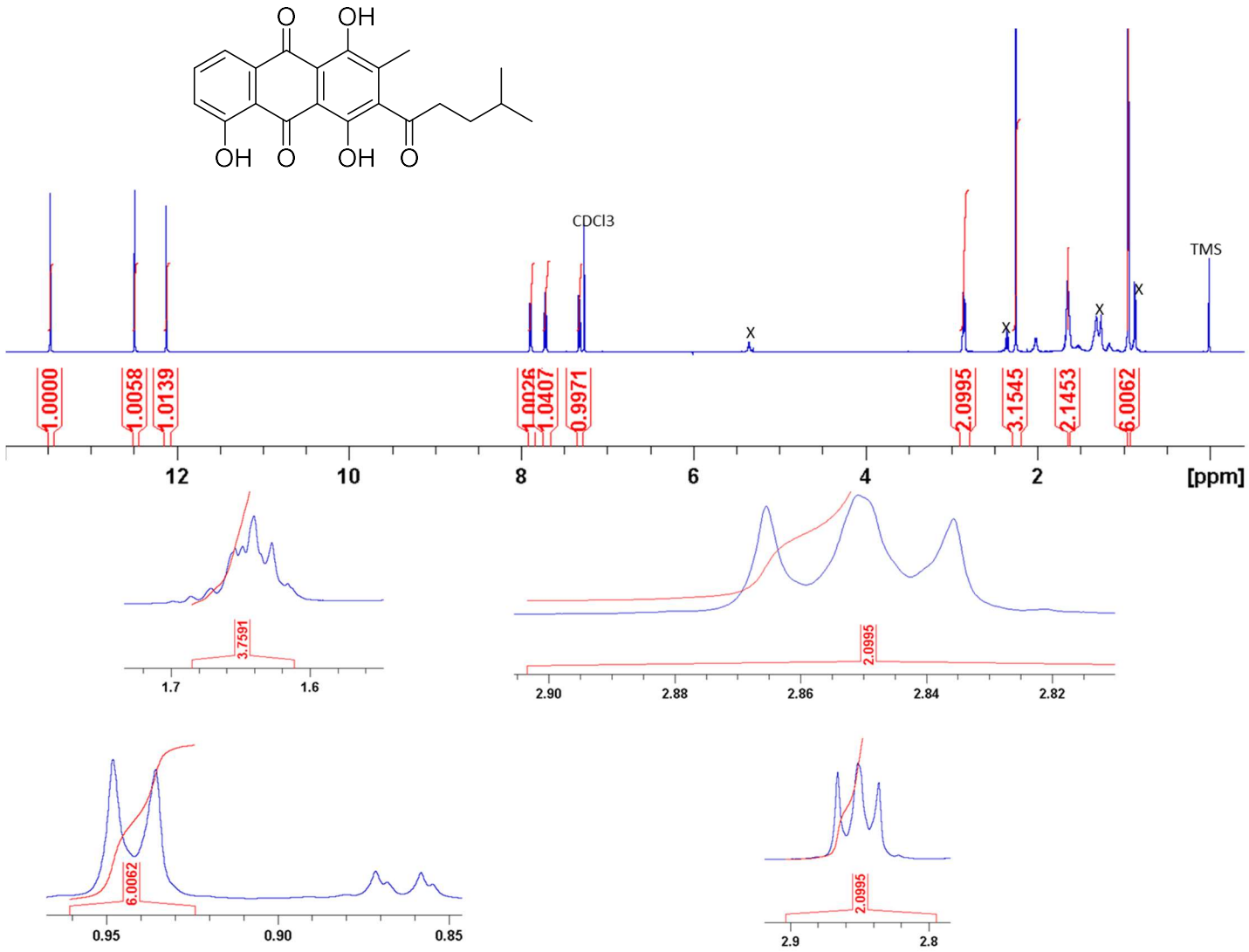
Suppl. Fig. 13. HSQC for Lupinacidin A (**1**).



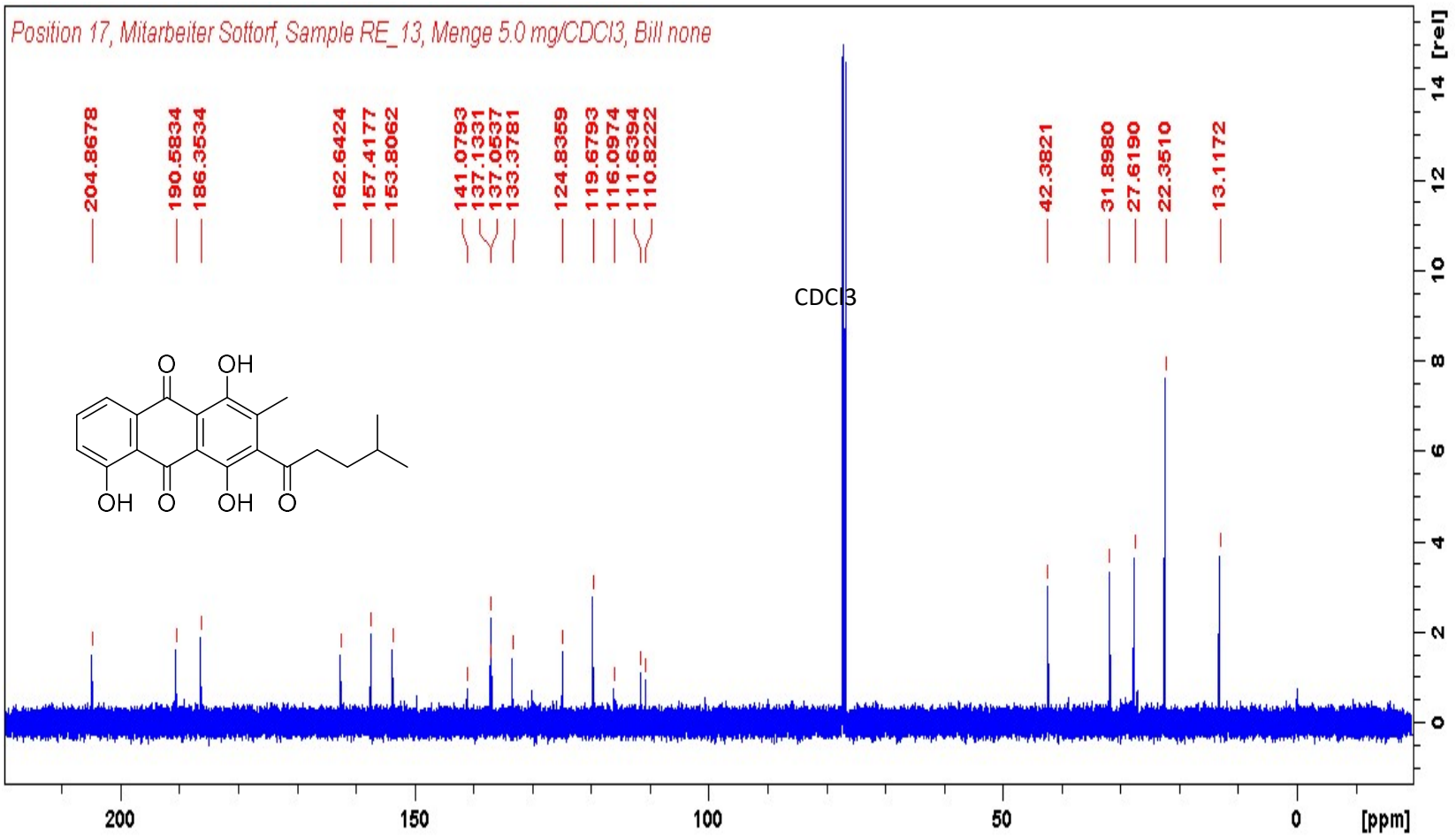
Suppl. Fig. 14. HMBC for Lupinacidin A (**1**).



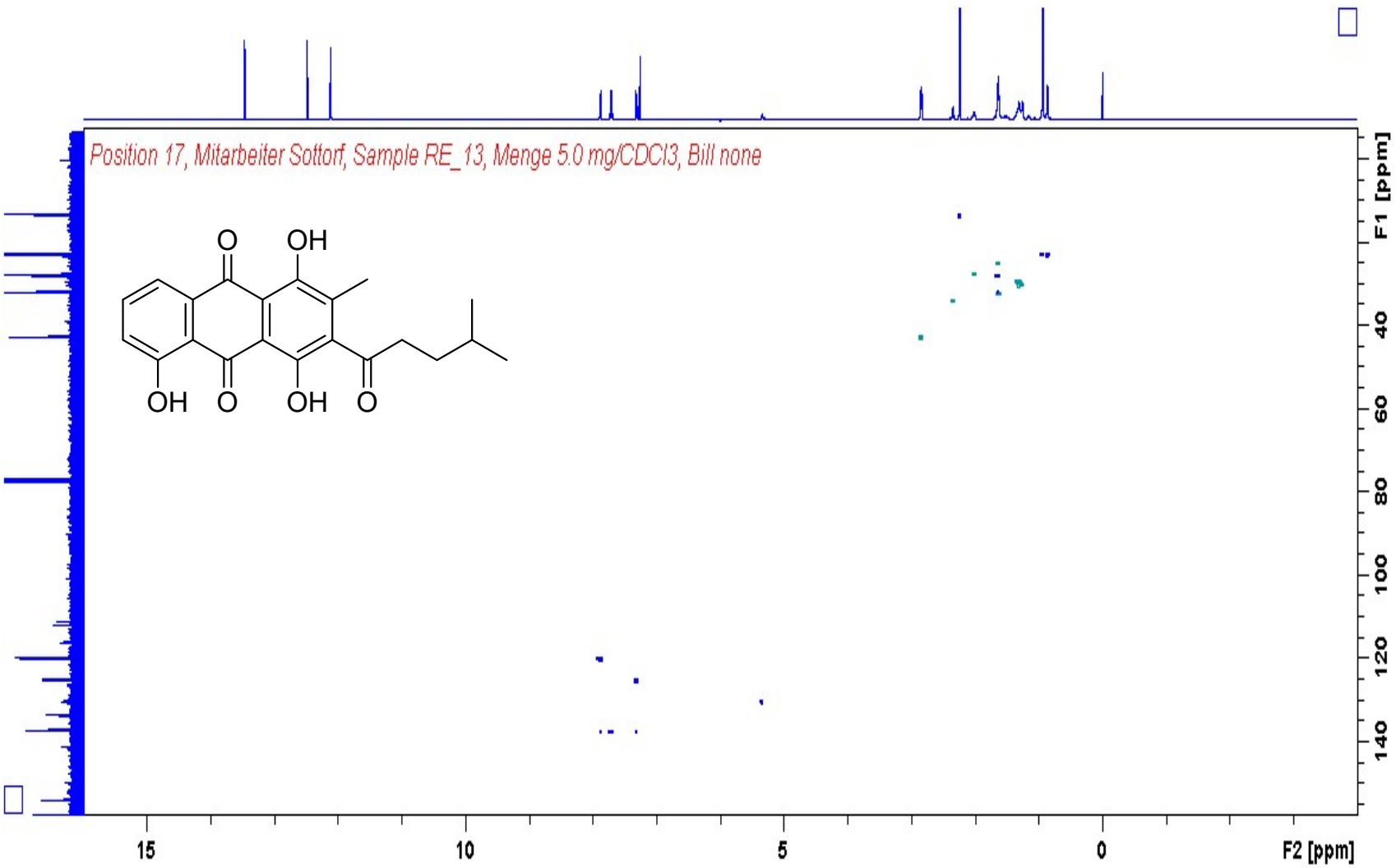
Suppl. Fig. 15. COSY for Lupinacidin A (**1**).



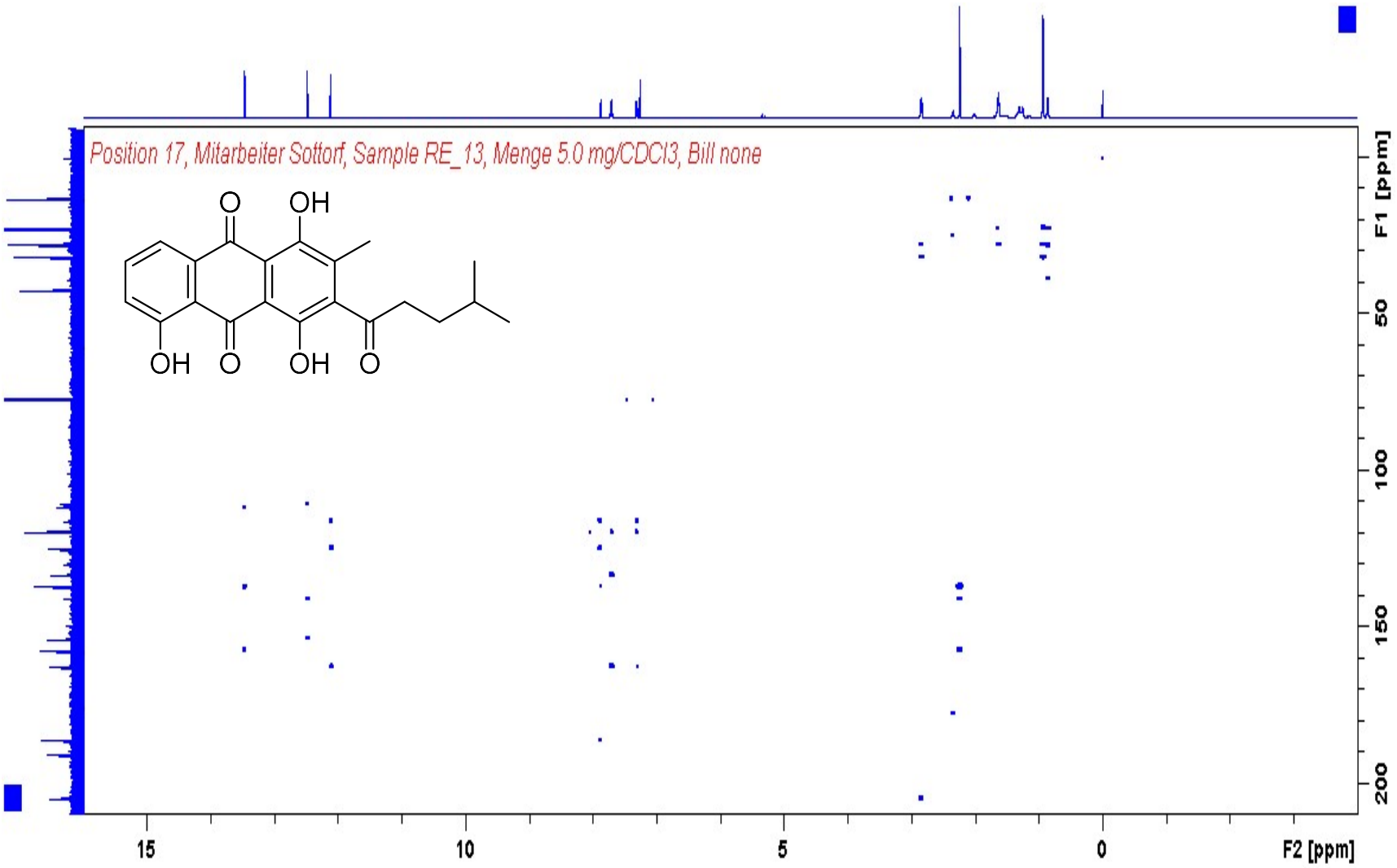
Suppl. Fig. 16. ^{1}H Galvaquinone B (**2**).



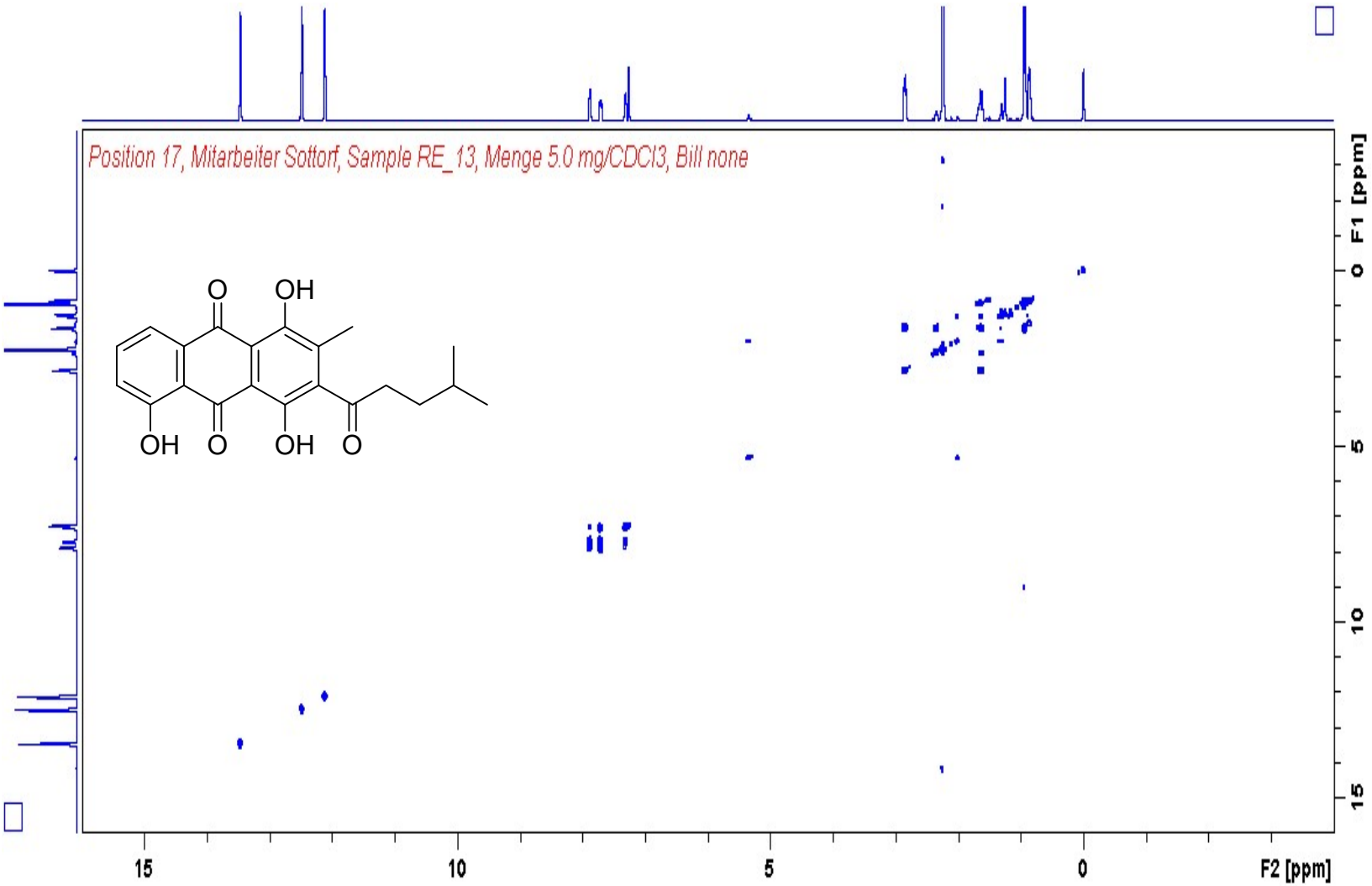
Suppl. Fig. 17. ^{13}C Galvaquinone B (**2**).



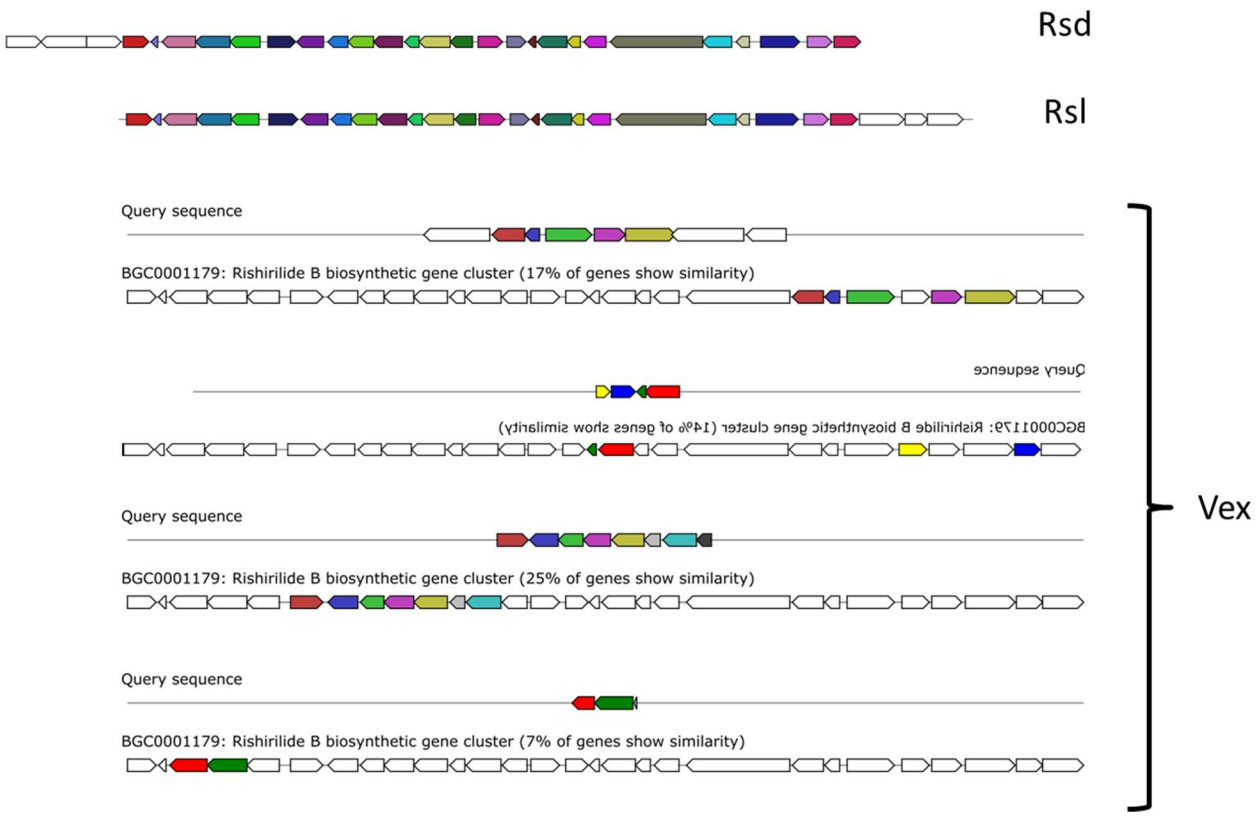
Suppl. Fig. 18. HSQC Galvaquinone B (**2**).



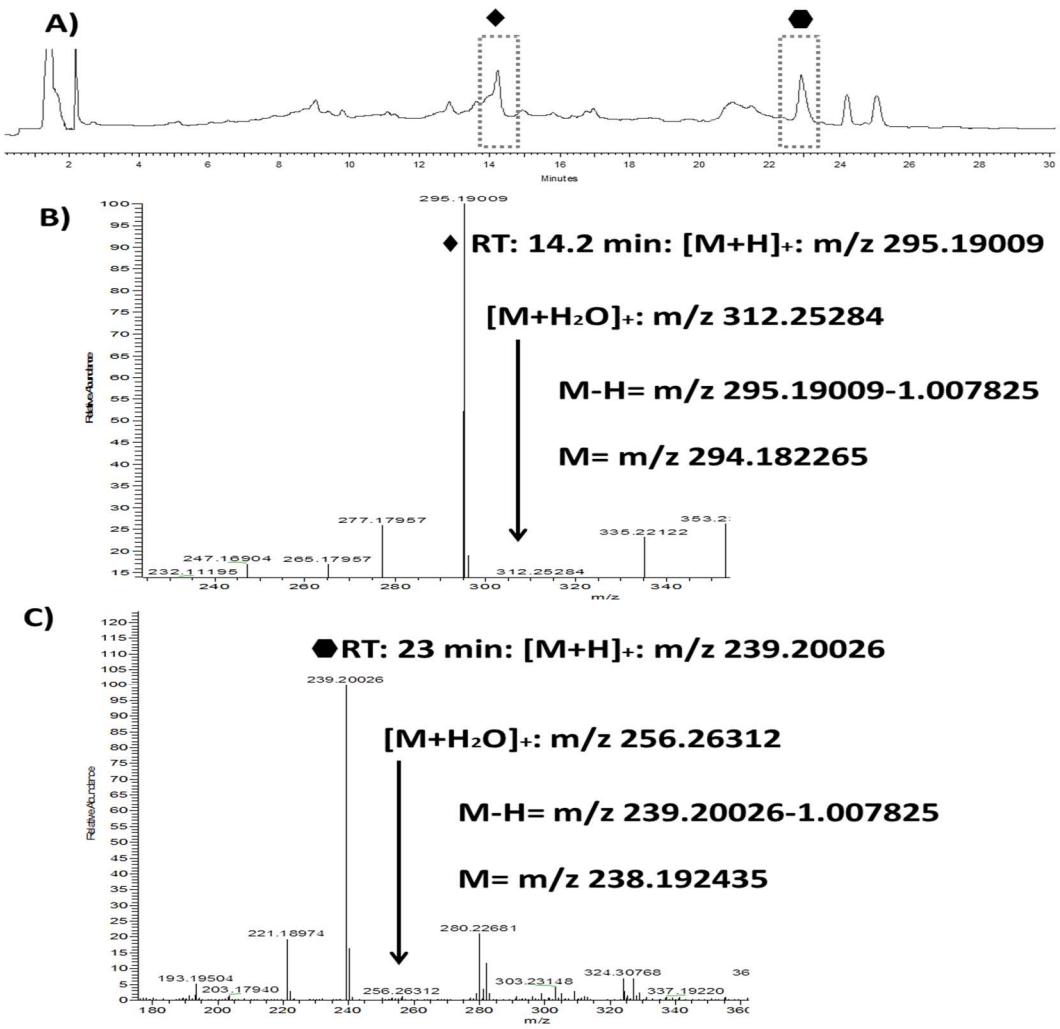
Suppl. Fig. 19. HMBC Galvaquinone B (**2**).



Suppl. Fig. 20. COSY Galvaquinone B (**2**).



Suppl. Fig. 21. Rsd, Rsl, and Vex gene clusters comparison of the Lupinacidin A (**1**) and Galvaquinone B (**2**) producers.



Suppl. Fig. 22. Complementary evaluation of the sea anemone crude extract. Diamond: RT:14.2 min. Hexagon: RT: 23 min. A) UV Chromatogram (254 nm) of the crude extract of the sea anemone *Gyractis sesere* highlighting the specific peaks for RT 14.2 min (diamond) and RT 23 min (hexagon). B) High resolution mass for RT 14.2 min. C) High resolution mass for RT 23 min. *RT: Retention Time.