

Article

Antimicrobial Profile of Actinomycin D Analogs Secreted by Egyptian Desert *Streptomyces* sp. DH7

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Supplementary Materials

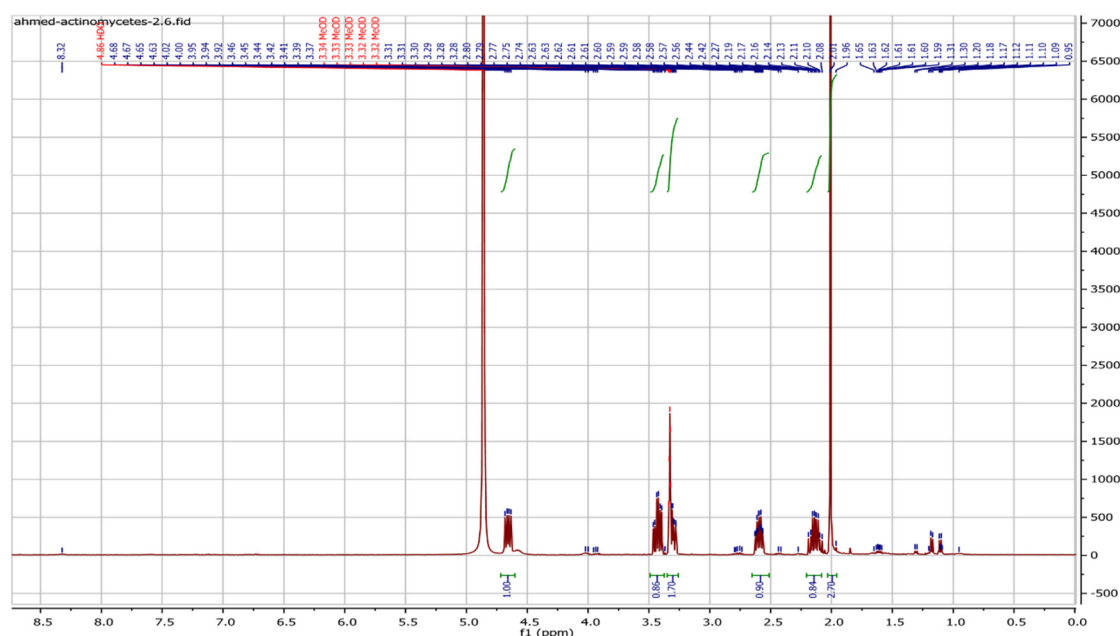
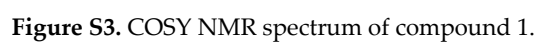
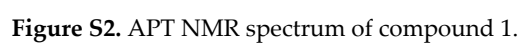


Figure S1. ¹H NMR spectrum of compound 1.



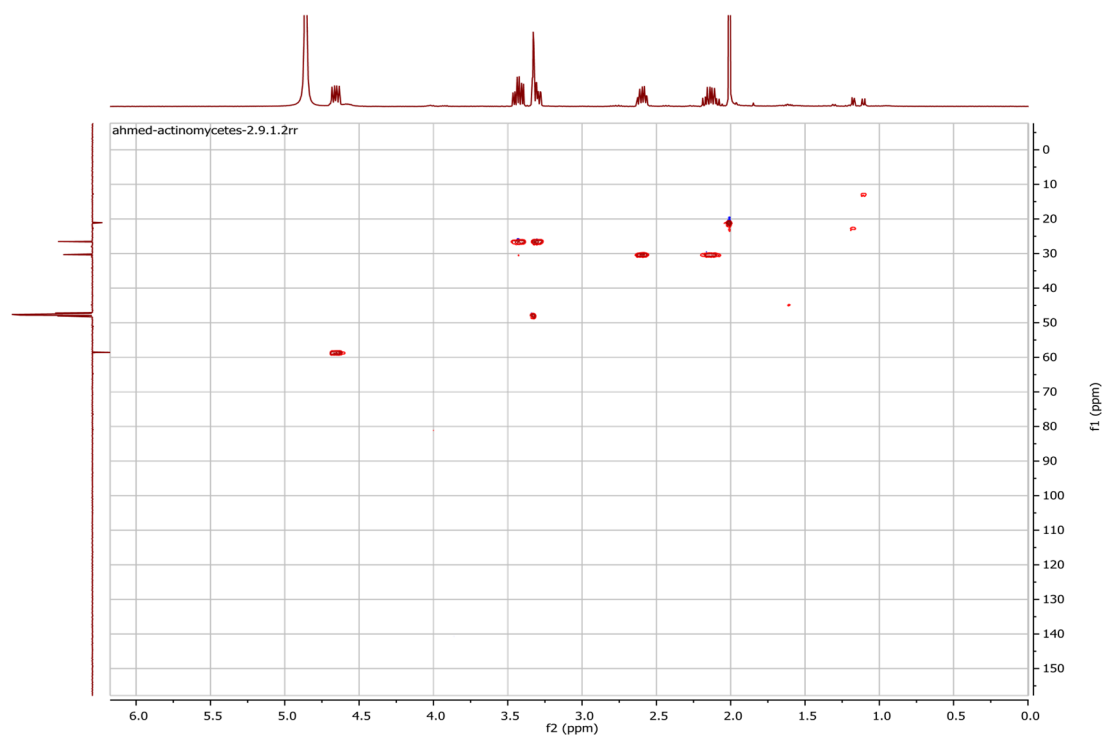


Figure S4. HSQC NMR spectrum of compound 1.

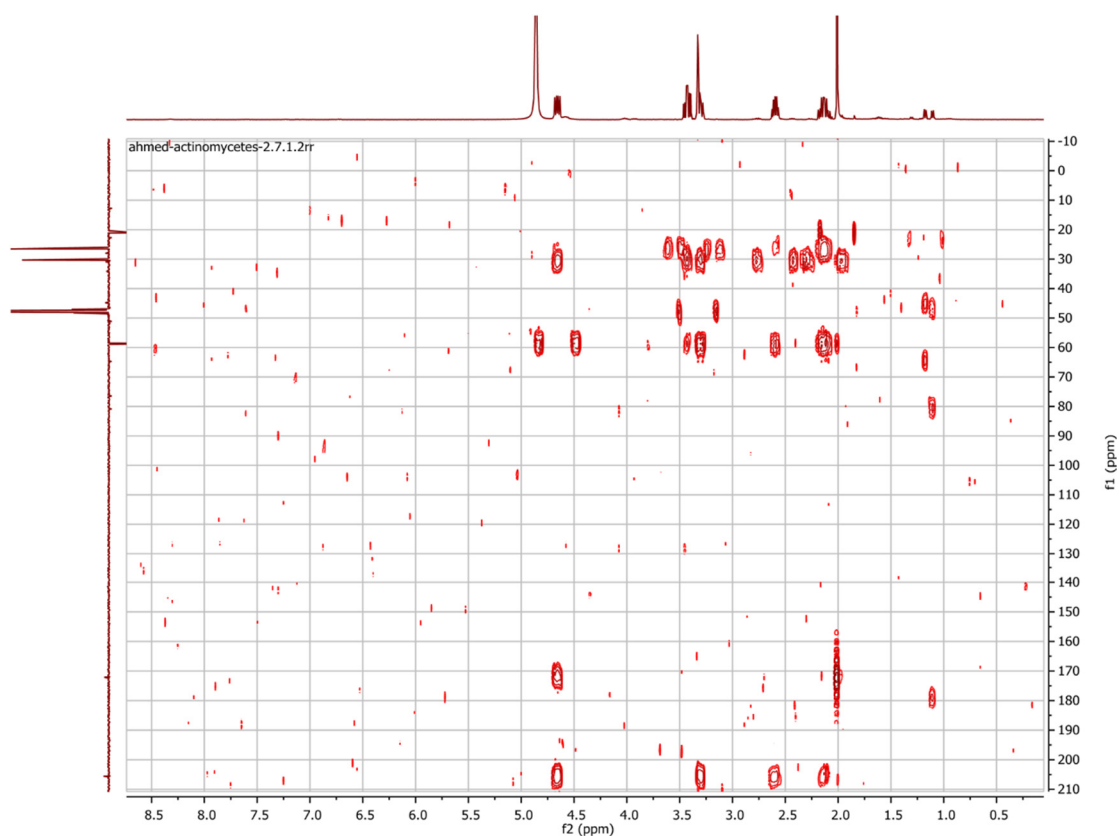


Figure S5. HMBC NMR spectrum of compound 1.

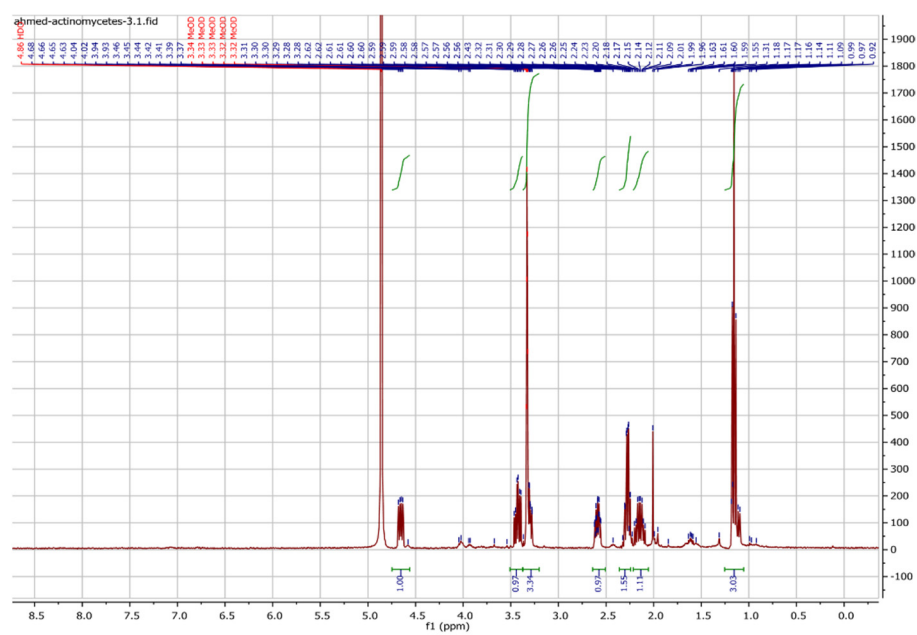


Figure S6. ¹H NMR spectrum of compound 2.

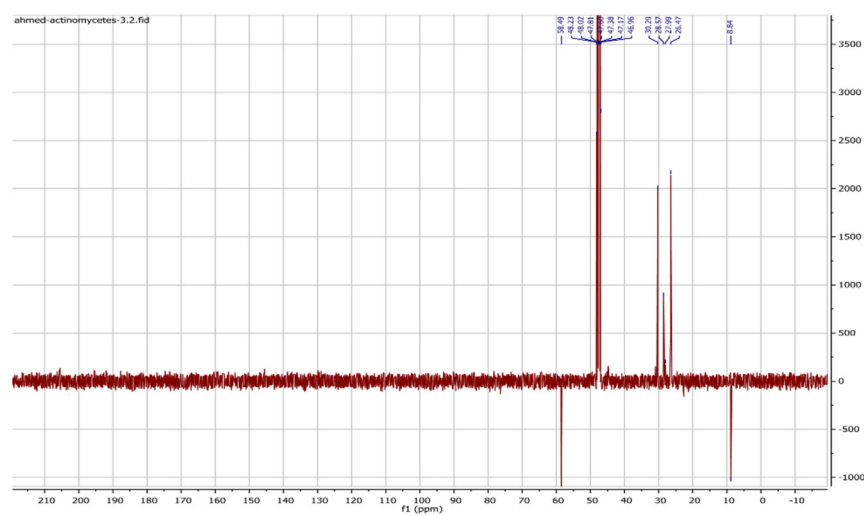


Figure S7. APT NMR spectrum of compound 2.

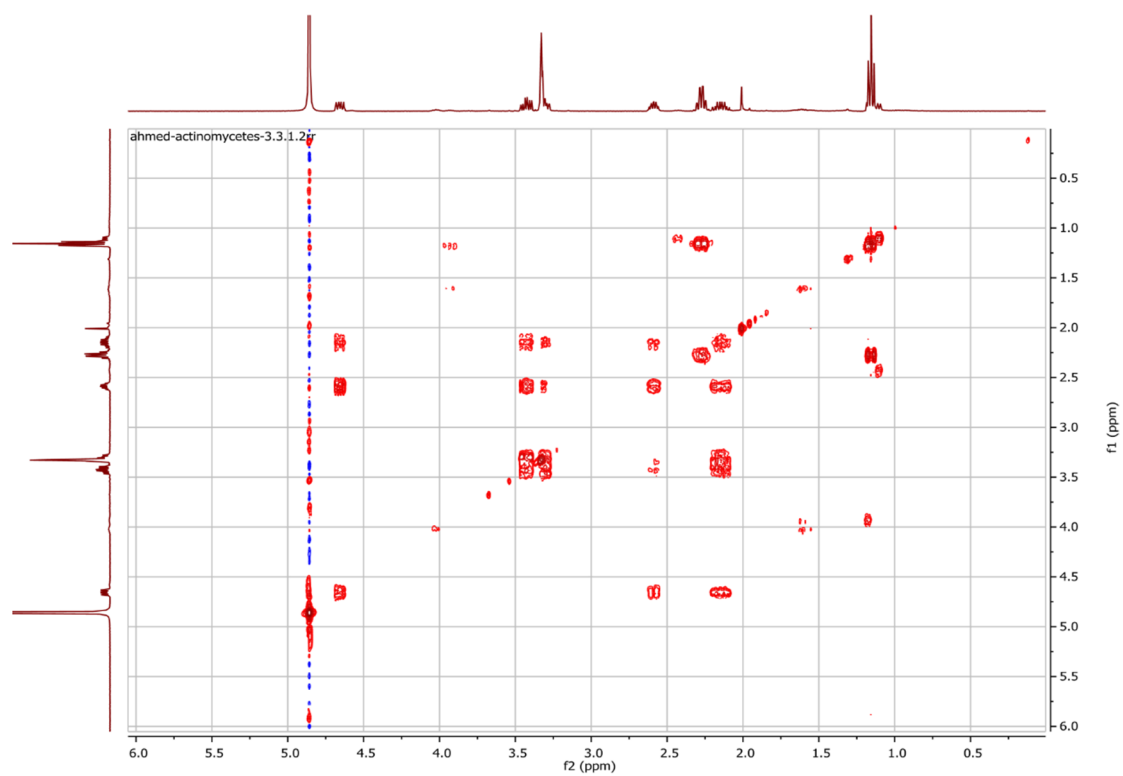


Figure S8. COSY NMR spectrum of compound 2.

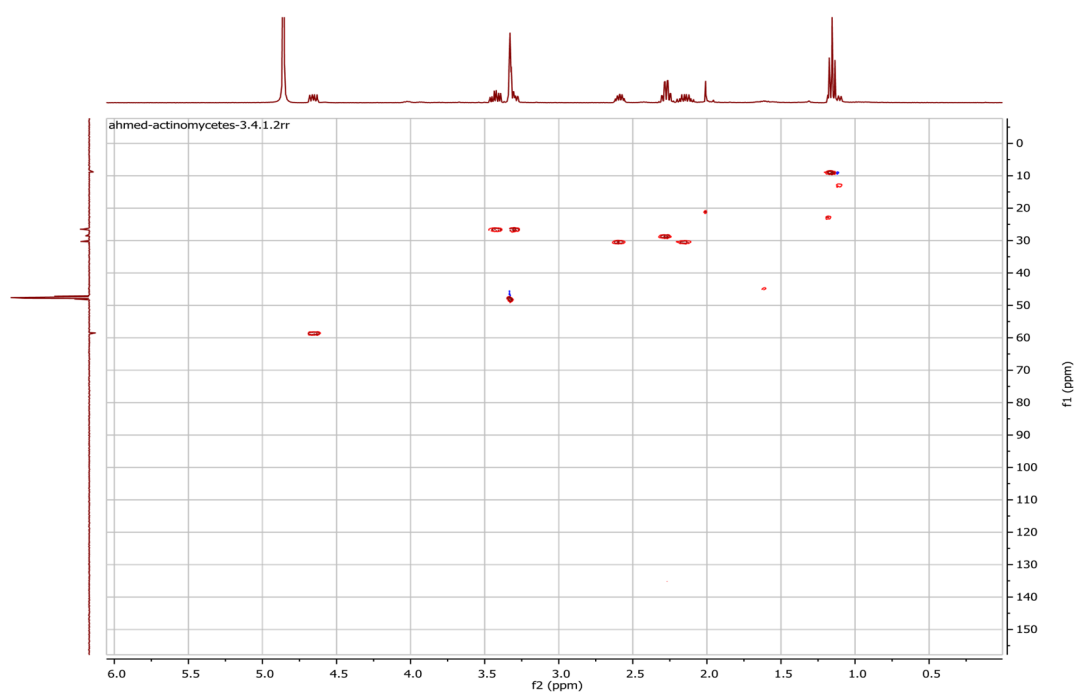


Figure S9. HSQC NMR spectrum of compound 2.

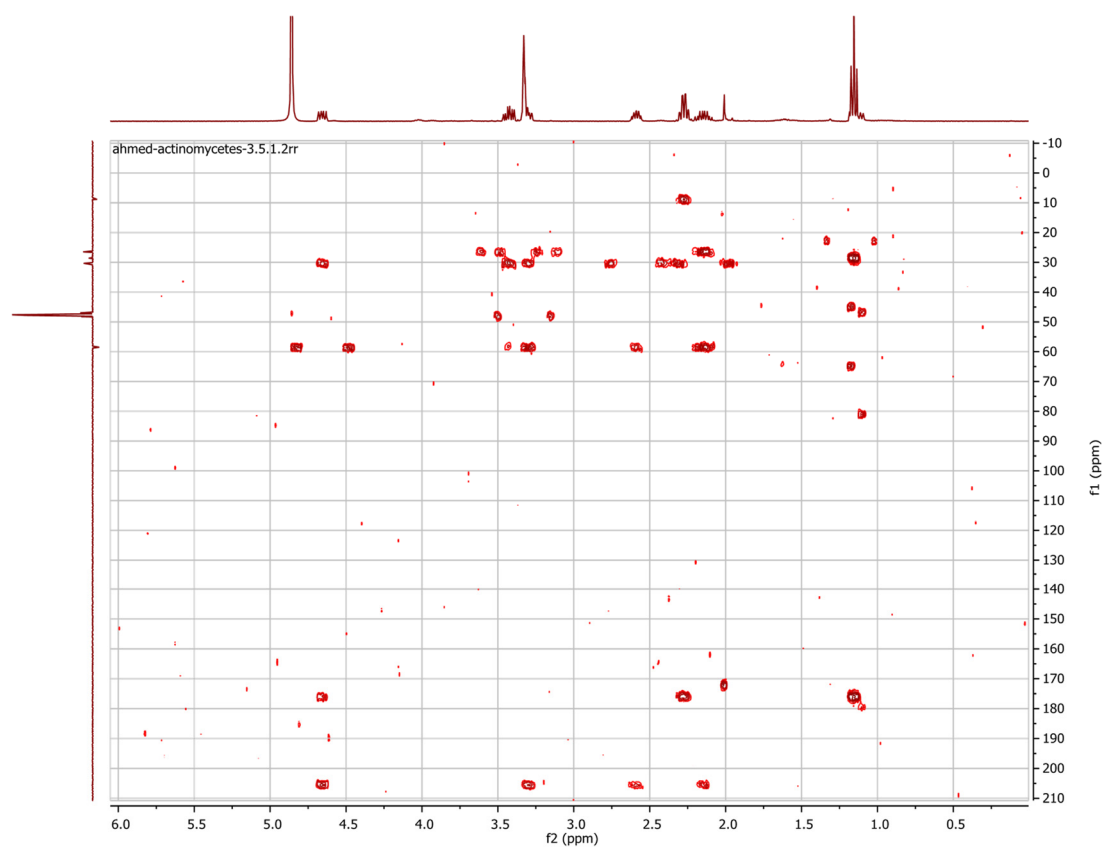


Figure S10. HMBC NMR spectrum of compound 2.

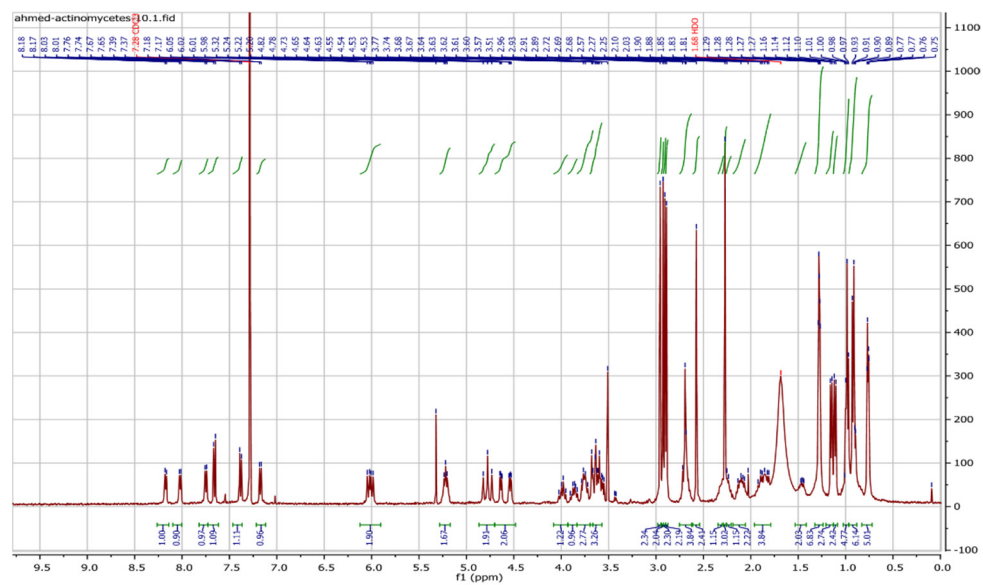


Figure S11. ¹H NMR spectrum of compound 3.

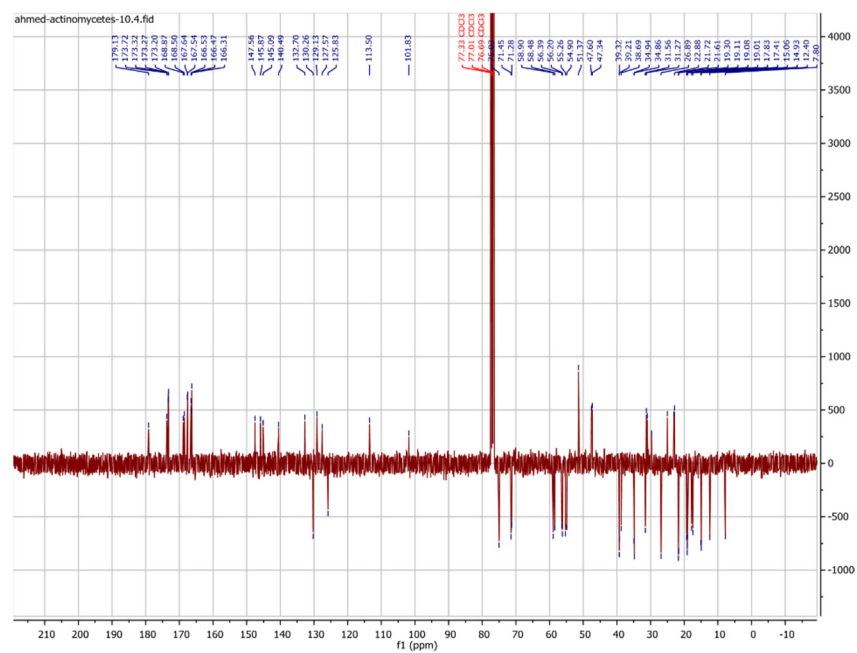


Figure S12. APT NMR spectrum of compound 3.

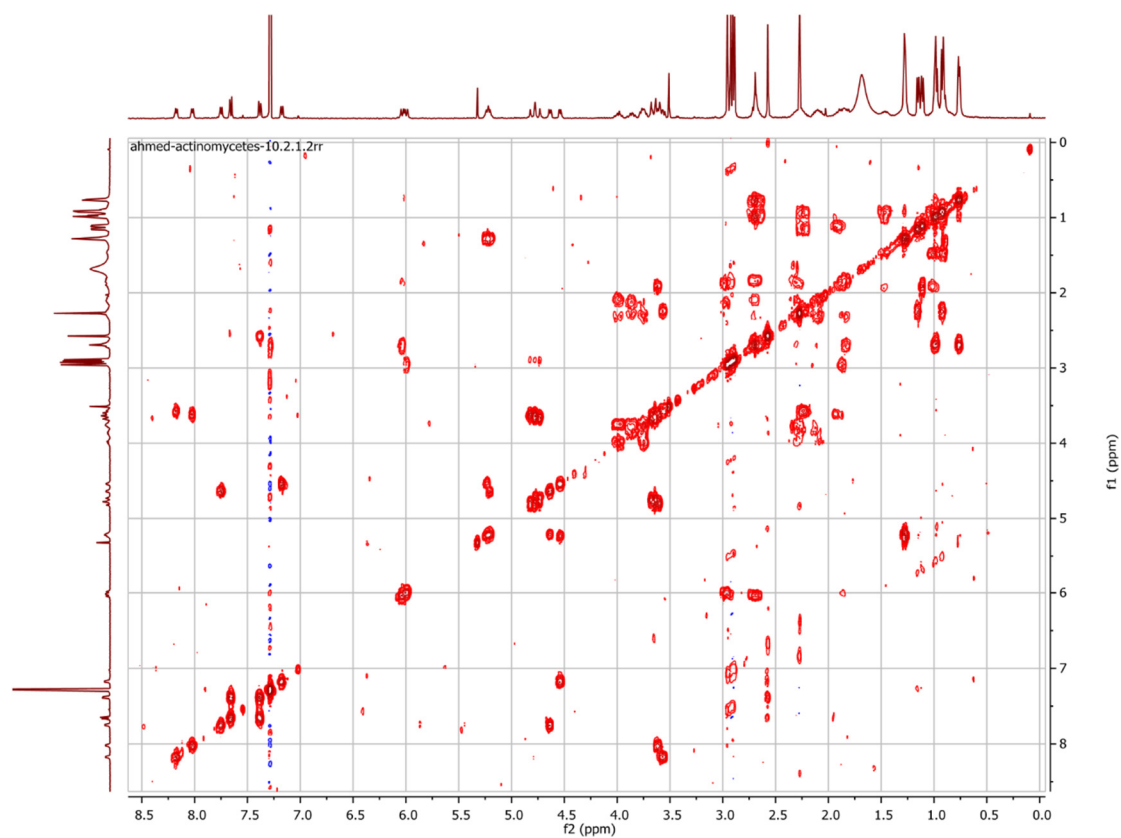


Figure S13. COSY NMR spectrum of compound 3.

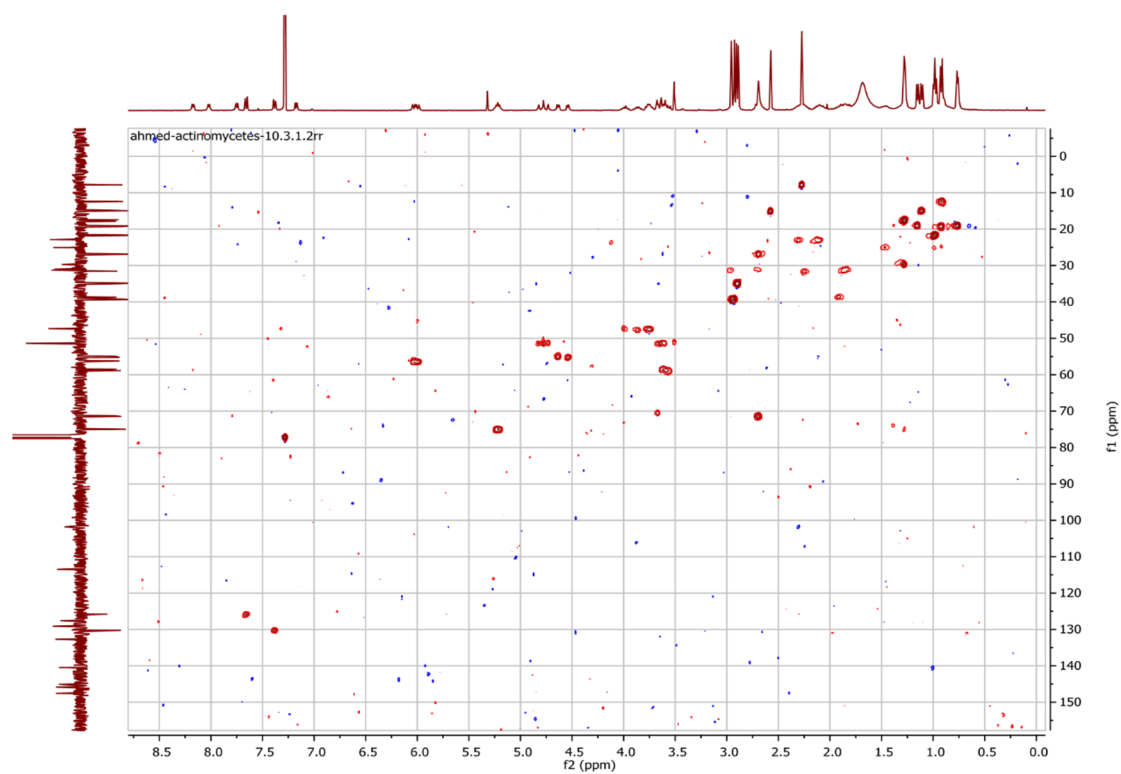


Figure S14. HSQC NMR spectrum of compound 3.

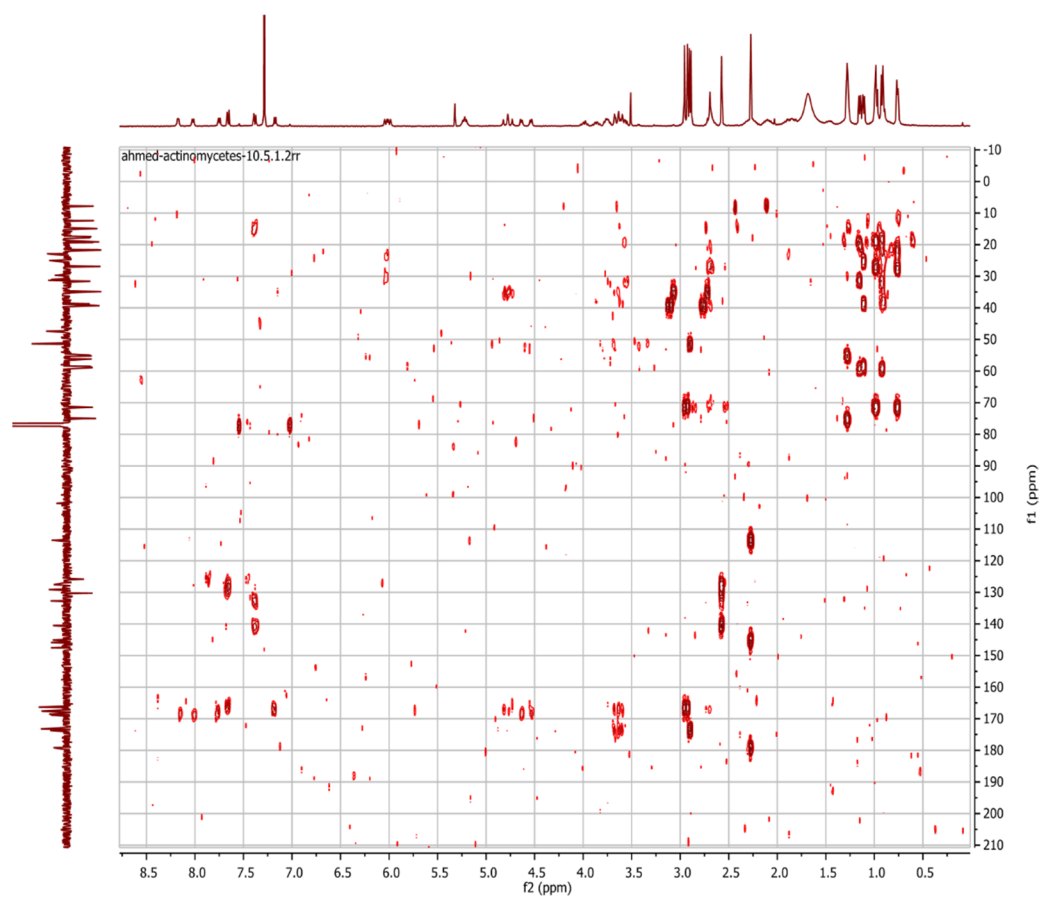


Figure S15. HMBC NMR spectrum of compound 3.

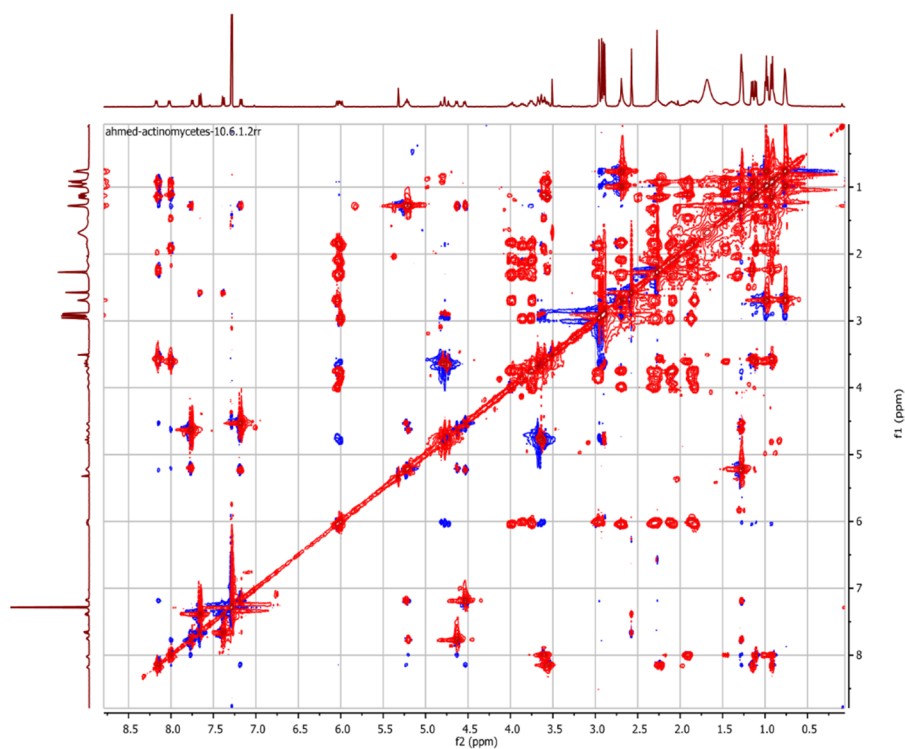


Figure S16. TOCSY NMR spectrum of compound 3.

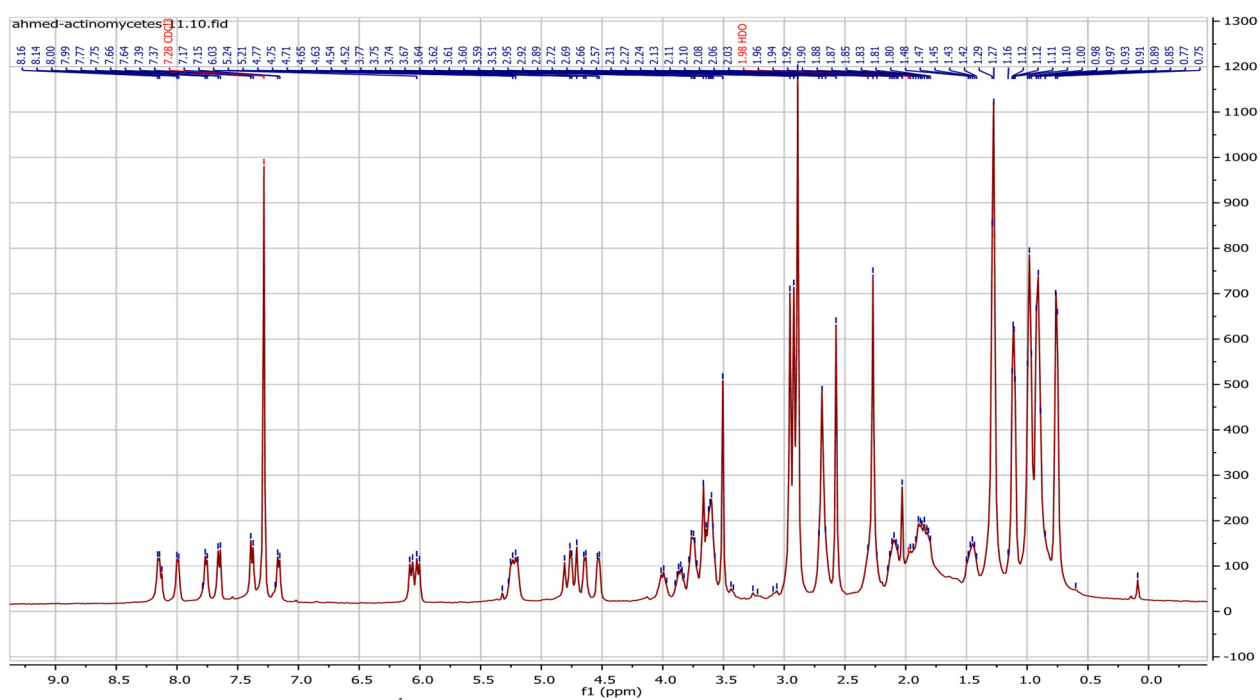


Figure S17. ^1H NMR spectrum of compound 4.

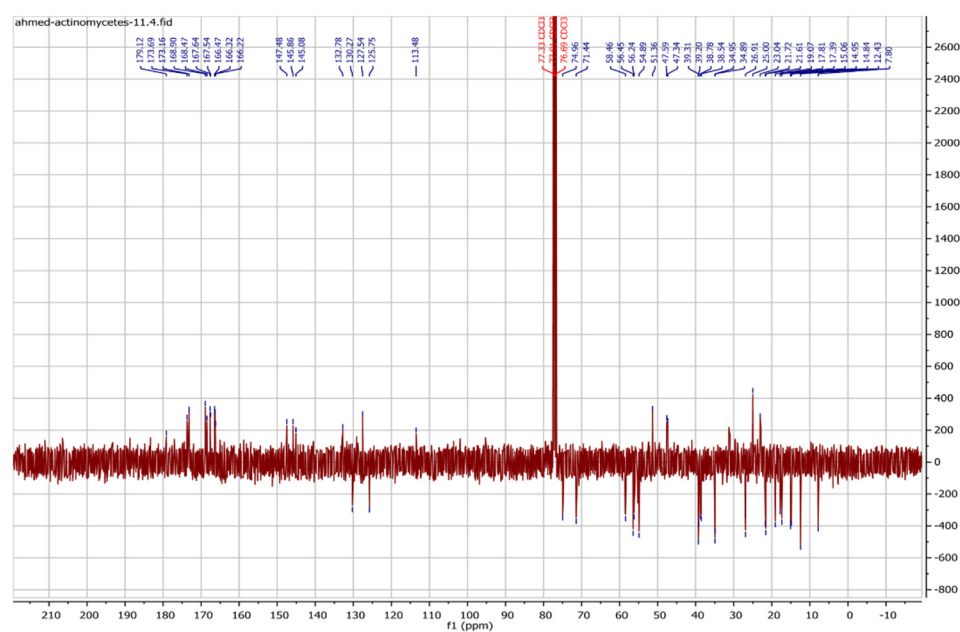


Figure S18. APT NMR spectrum of compound 4.

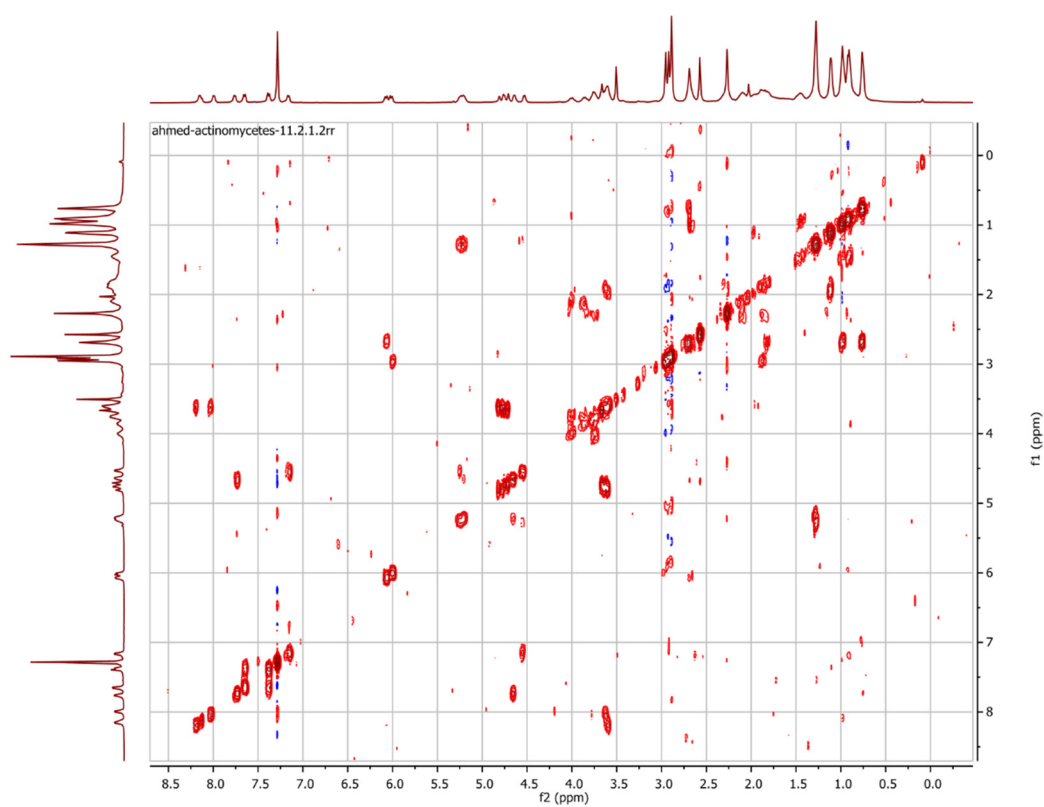


Figure S19. COSY NMR spectrum of compound 4.

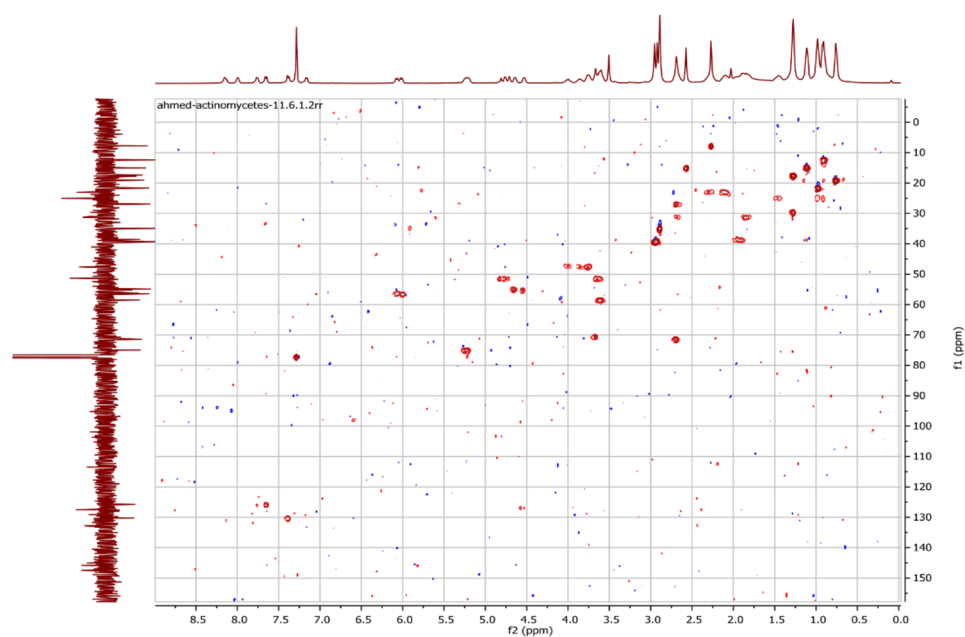


Figure S20. HSQC NMR spectrum of compound 4.

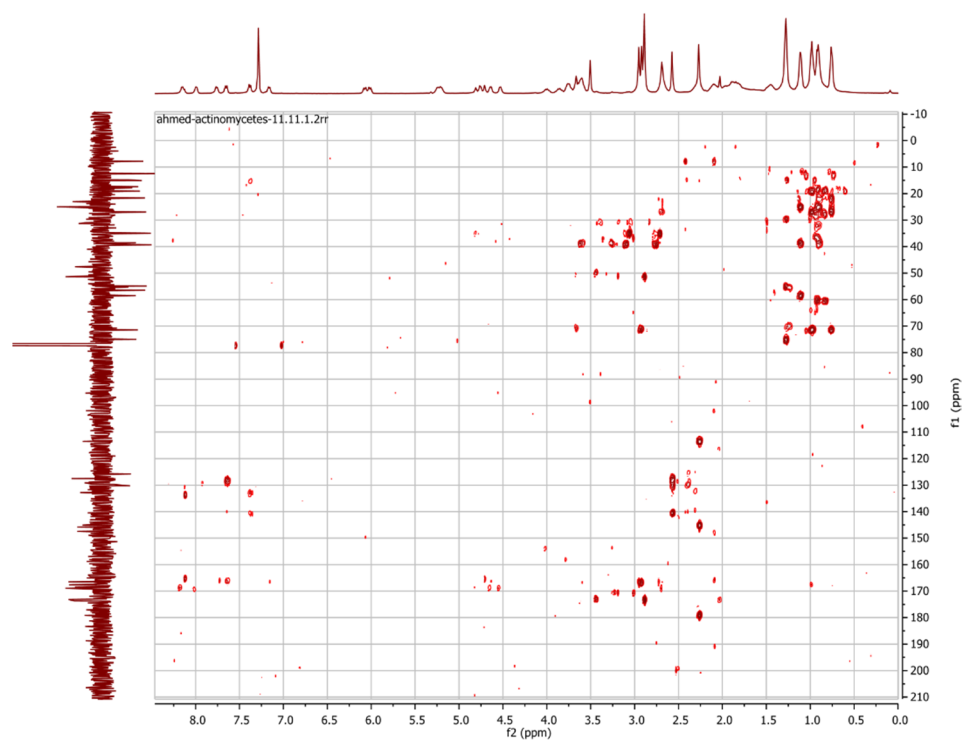


Figure S21. HMBC NMR spectrum of compound 4.

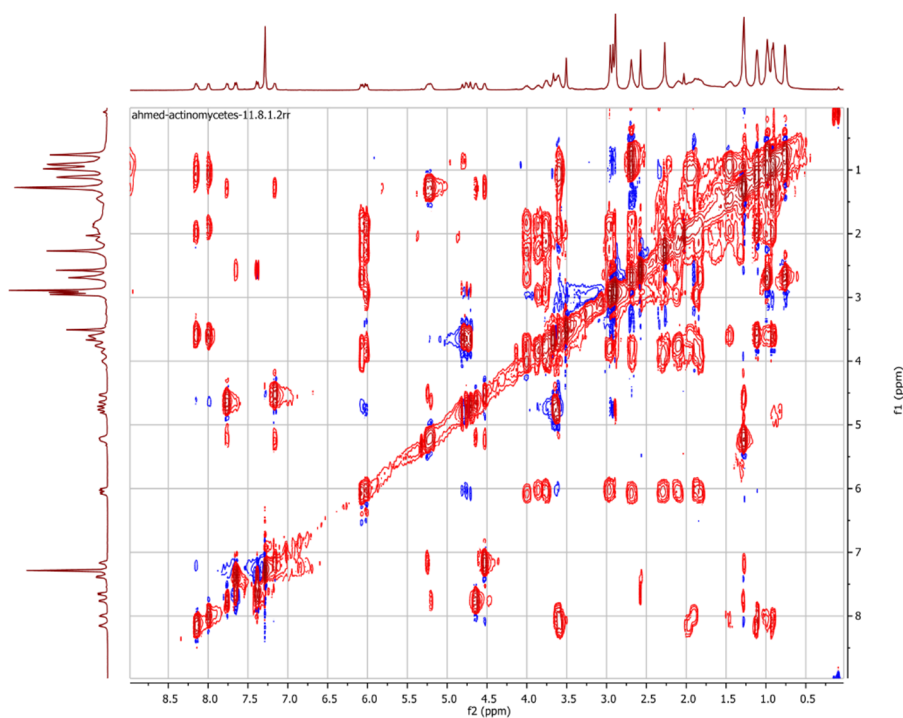


Figure S22. TOCSY NMR spectrum of compound 4.

Table S1. Identification of bacterial strains using MALDI/TOF (Matrix-assisted laser desorption ionization/ time-of-flight), showing score values.

Isolate's code	Organism Identification	Score value	Category	Symbol	NCBI Identifier
30	<i>Staphylococcus aureus</i>	2.12	A	++	1280
34	<i>Staphylococcus aureus</i>	2.18	A	++	1280
35	<i>Staphylococcus aureus</i>	2.17	A	++	1280
37	<i>Staphylococcus aureus</i>	2.27	A	++	1280
39	<i>Staphylococcus aureus</i>	2.13	A	++	1280
43	<i>Staphylococcus aureus</i>	2.37	A	+++	1280
55	<i>Staphylococcus aureus</i>	2.32	A	+++	1280
60	<i>Staphylococcus aureus</i>	2.17	A	++	1280

Table S2. Antimicrobial susceptibility profile of *Staphylococcus aureus* strains used in this study.

Isolates		30	34	35	37	39	43	55	60
Antibiotics									
Penicillins	Penicillin(P,10units)	R	R	R	R	R	R	R	R
	Oxacillin(OX,30)	R	R	R	R	R	I	R	R
	Cefoxitin(FOX, 30µg)	R	R	R	R	R	R	R	R
Glycopeptides	Vancomycin(V,30 µg)	R	R	S	S	S	R	R	R
Aminoglycosides	Gentamicin(CN,10µ)	R	R	R	R	R	R	R	R
	Amikacin(AK,30µg)	R	S	R	R	S	R	R	R
	Tobramycin(TOB,10µg)	R	R	R	R	R	R	R	R
	Azithromycin(AZM,15µg)	R	R	S	R	S	R	R	R
Macrolides	Clarithromycin(CLR,15 µg)	R	R	R	R	S	R	R	R
Tetracyclines	Erythromycin(E,15 µg)	R	R	R	R	S	R	R	R
	Tetracycline(TE,30 µg)	R	S	R	R	R	R	R	R
	Ciprofloxacin(CIP,5 µg)	R	R	R	R	R	R	R	R
Fluoroquinolones	Levofloxacin(LEV,5 µg)	R	R	R	R	R	R	R	R
Lincosamides	Norfloxacin(NOR,10 µg)	R	R	R	R	R	R	R	R
	Clindamycin(DA,2 µg)	R	R	R	R	S	R	R	R
	Suflamethoxazole-								
Folate pathway inhibitors	Trimethoprim(SXT 1.25/23.75 µg);	S	R	S	S	R	I	S	S
Phenicol	Chloramphenicol (C,30 µg)	S	S	R	S	S	S	S	R

Ansamycin s	Rifampin (RA,5 µg)	R	S	R	R	S	R	R	R
Oxazolidin ones	Linezolid(L ZD,30 µg)	S	R	R	R	R	R	R	R

*R: Resistant, I: Intermediate, S: sensitive.