

Supplementary information for

# Natural Products from Singapore Soil-Derived *Streptomycetaceae* Family and Evaluation of Their Biological Activities

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**Figure S1.** UV spectrum for **1**.

**Figure S2.** (+)-HRESIMS spectrum for **1**.

**Figure S3.** <sup>1</sup>H NMR spectrum ((CD<sub>3</sub>)<sub>2</sub>CO, 400 MHz) of **1**.

**Figure S4.** COSY spectrum of **1**.

**Figure S5.** HSQC spectrum of **1**.

**Figure S6.** HMBC spectrum of **1**.

**Figure S7.** <sup>1</sup>H NMR spectrum ((CD<sub>3</sub>)<sub>2</sub>CO, 400 MHz) of tetronomycin.

**Figure S8.** HSQC spectrum of tetronomycin.

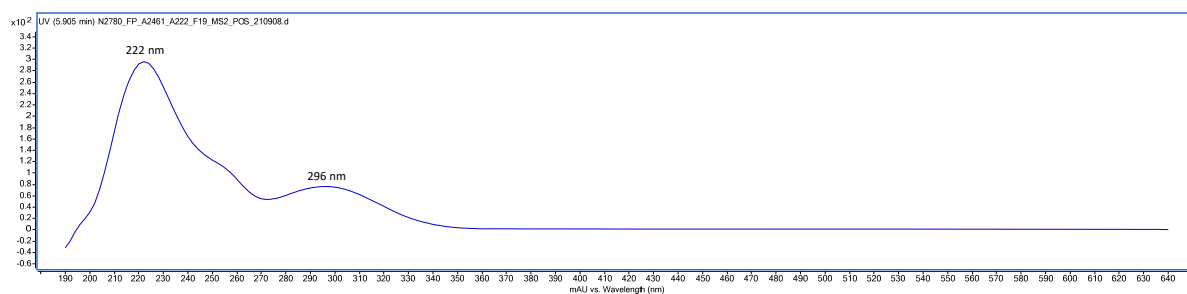
**Figure S9.** HMBC spectrum of tetronomycin.

**Figure S10.** Dose response curve against *Staphylococcus aureus* Rosenbach (SA25923), *Klebsiella aerogenes* (EA13048), *Pseudomonas aeruginosa* (PA9027), *Candida albicans* (CA10231) and *Aspergillus fumigatus* (AF46645). A) Nonactin, B) Monactin, C) Dinactin, D) 4E-Deacetylchromomycin A3, E) Chromomycin A2, F) Lysolipin I, G) Soyasaponin II and H) Naphthomevalin.

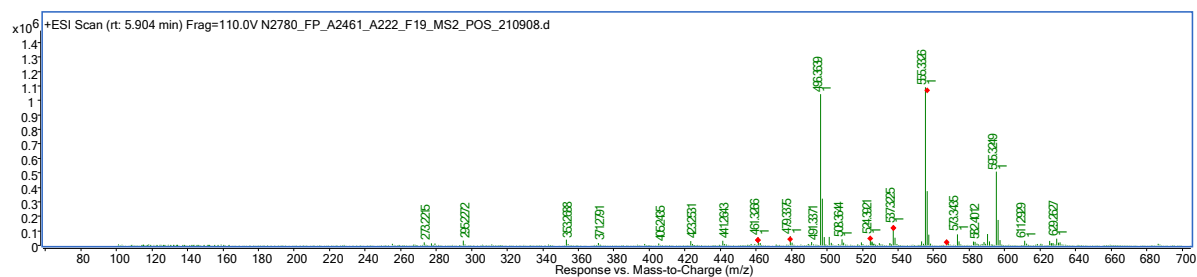
**Figure S11.** Dose response curve against A549 human lung carcinoma cells, and two pancreatic cancer cell lines MIA PaCa-2 and PANC-1 cells. A) Nonactin, B) Monactin, C) Dinactin, D) 4E-Deacetylchromomycin A3, E) Chromomycin A2, F) Lysolipin I, G) Soyasaponin II and H) Naphthomevalin.

**Figure S12.** Dose response curve against *Klebsiella aerogenes* (EA13048), *Pseudomonas aeruginosa* (PA9027), *Candida albicans* (CA10231) and *Aspergillus fumigatus* (AF46645). A) **1** and B) Tetronomycin.

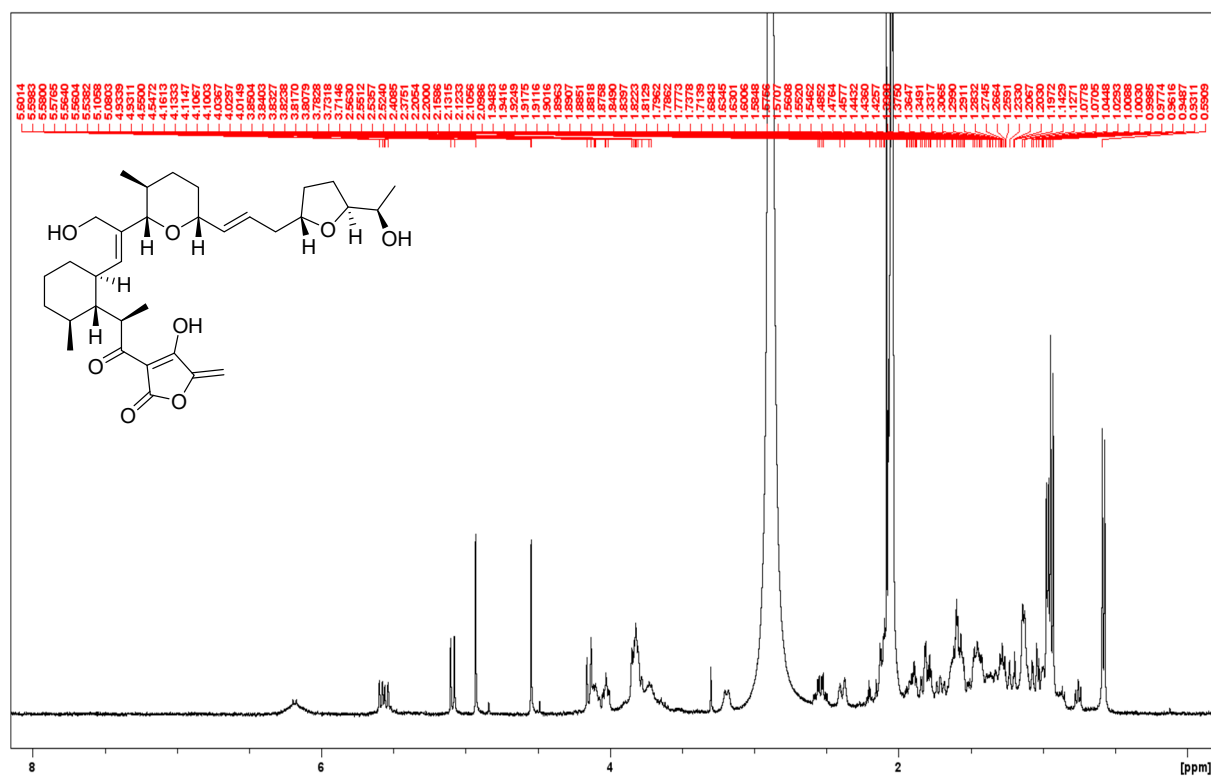
**Table S1.** Antimicrobial and cytotoxicity primary screening results of 4 actinobacteria strains grown in 5 different growth media.



**Figure S1.** UV spectrum for **1**.



**Figure S2.** (+)-HRESIMS spectrum for **1**.



**Figure S3.**  $^1\text{H}$  NMR spectrum ( $(\text{CD}_3)_2\text{CO}$ , 400 MHz) of **1**.

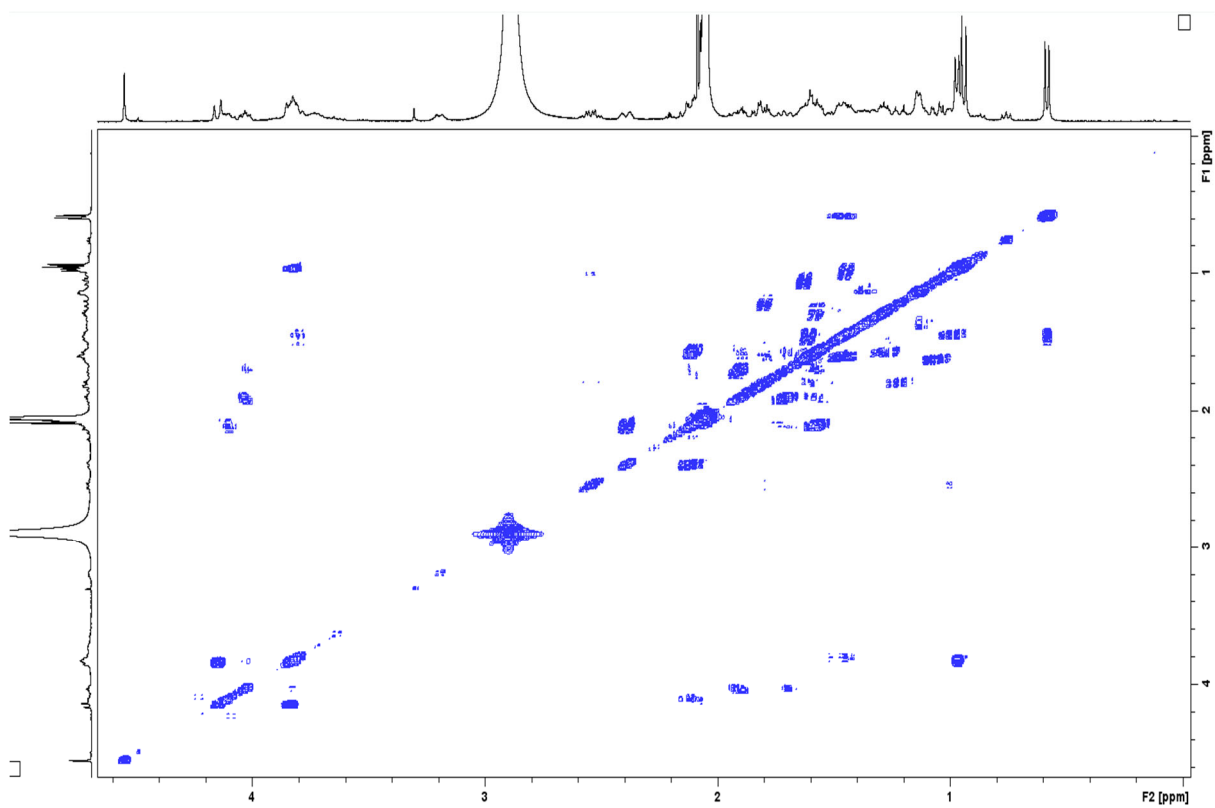


Figure S4. COSY spectrum of 1.

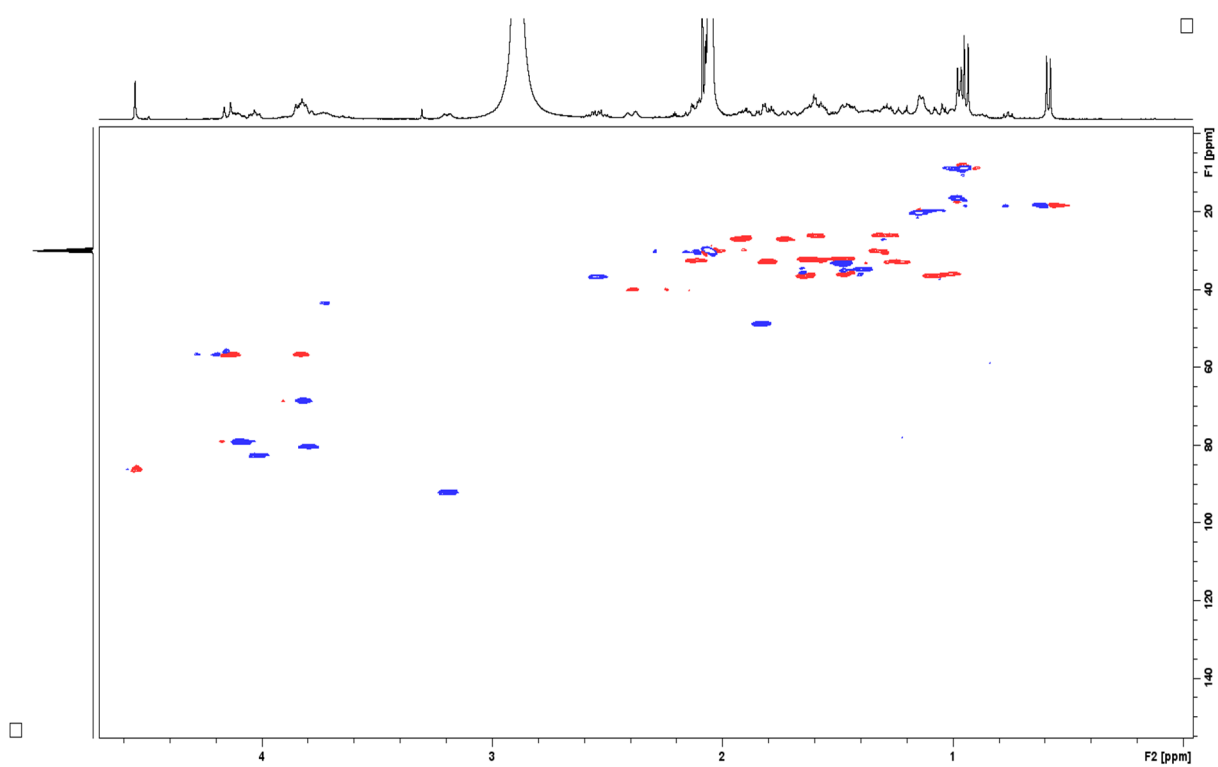
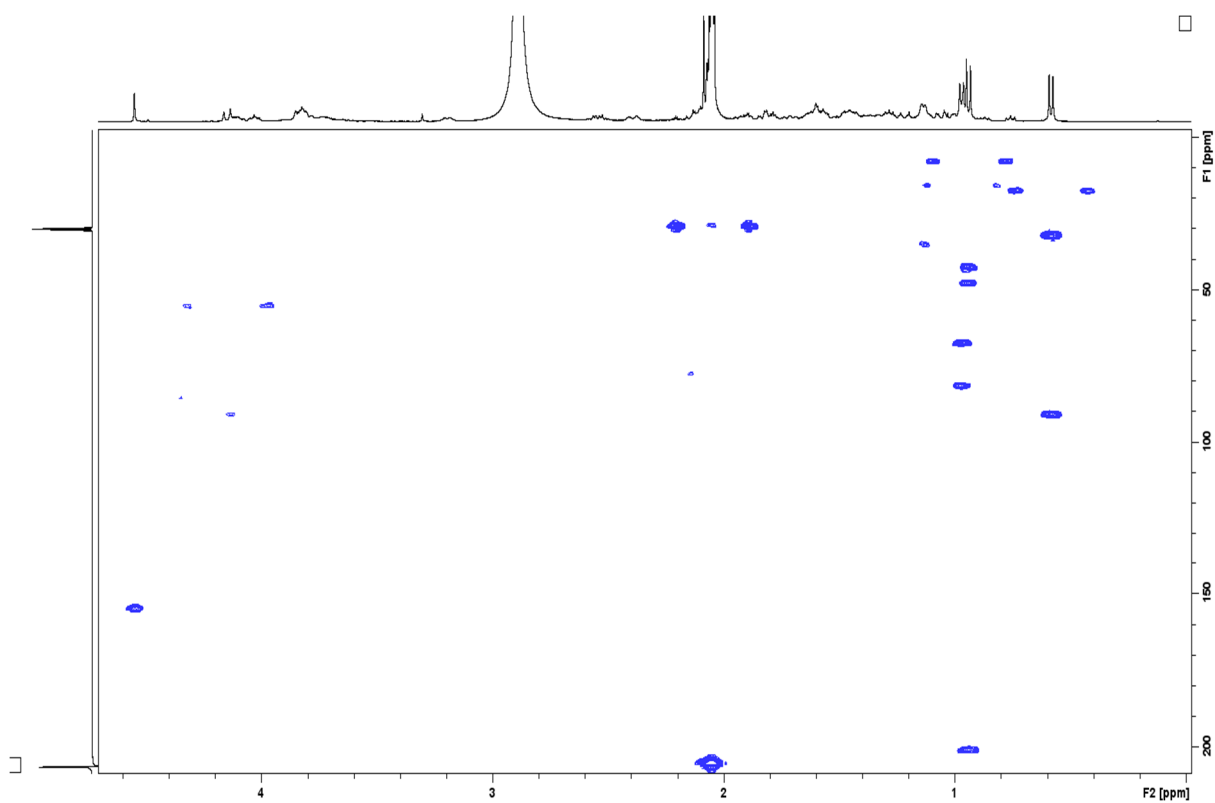
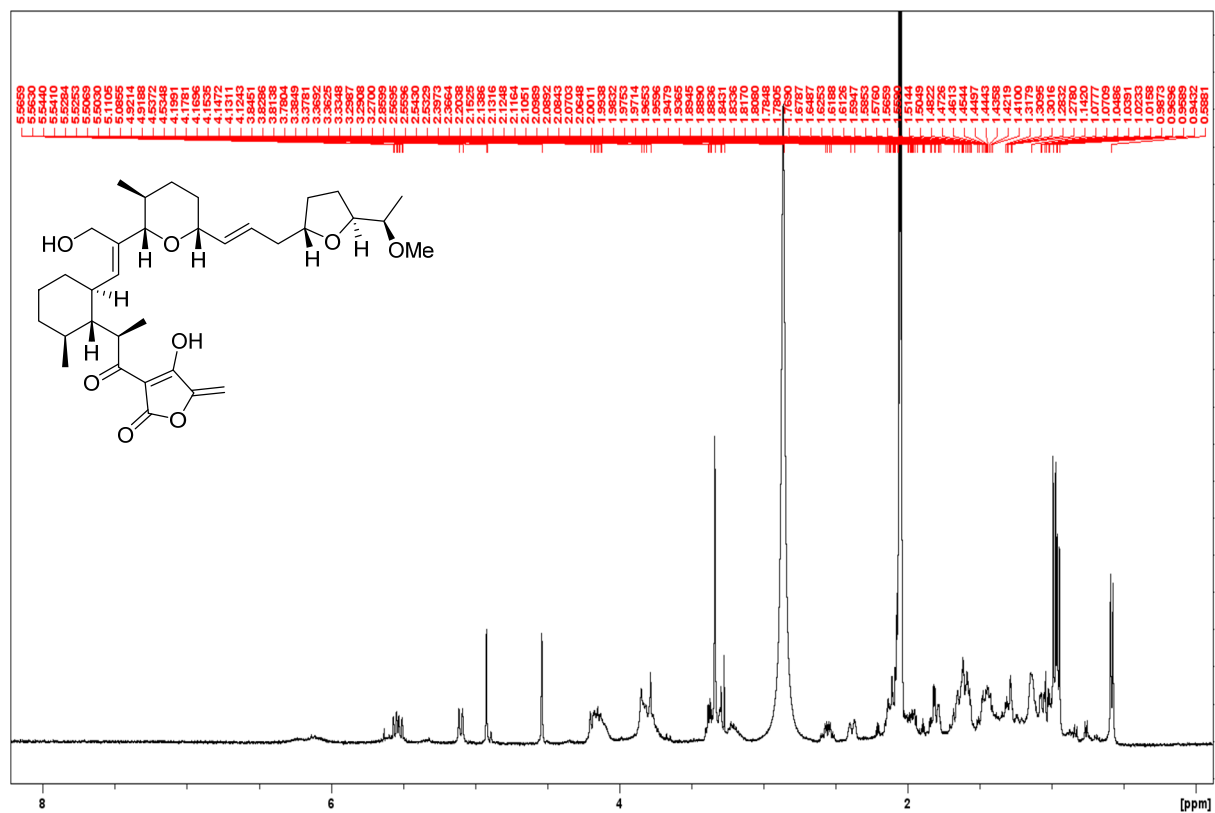


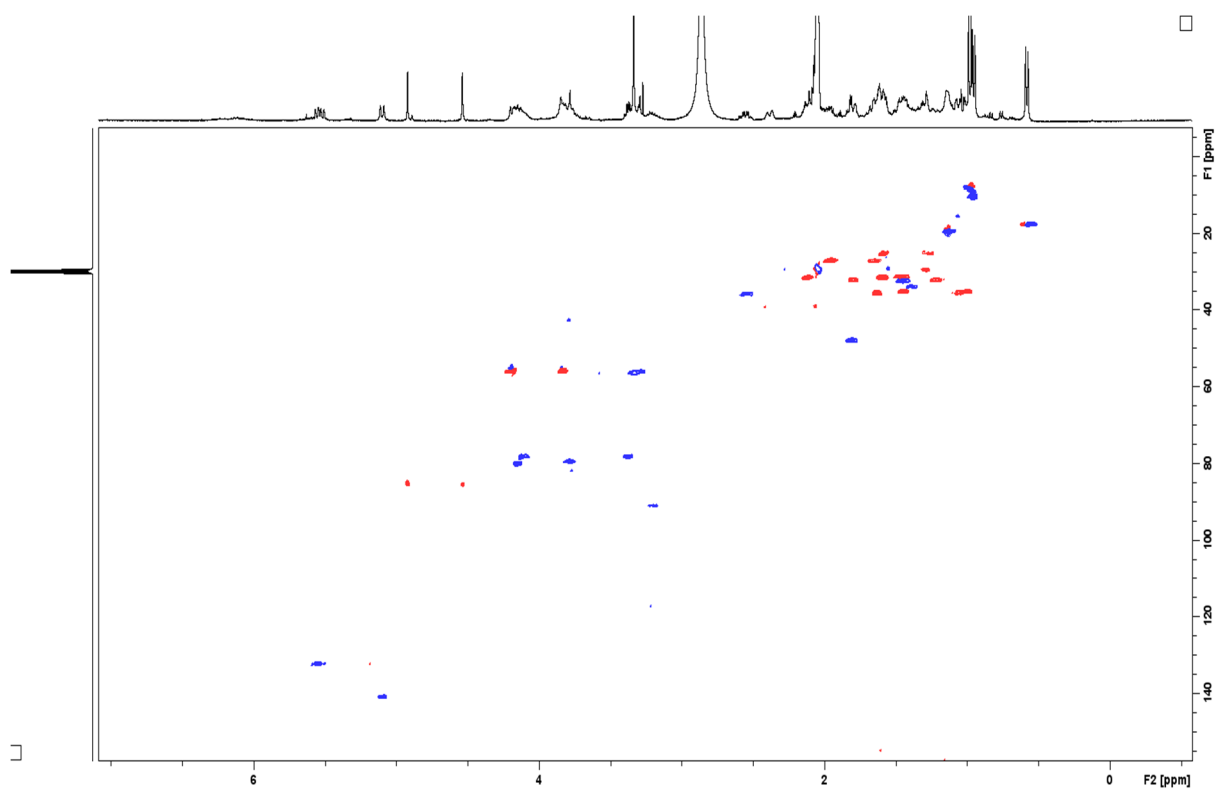
Figure S5. HSQC spectrum of 1.



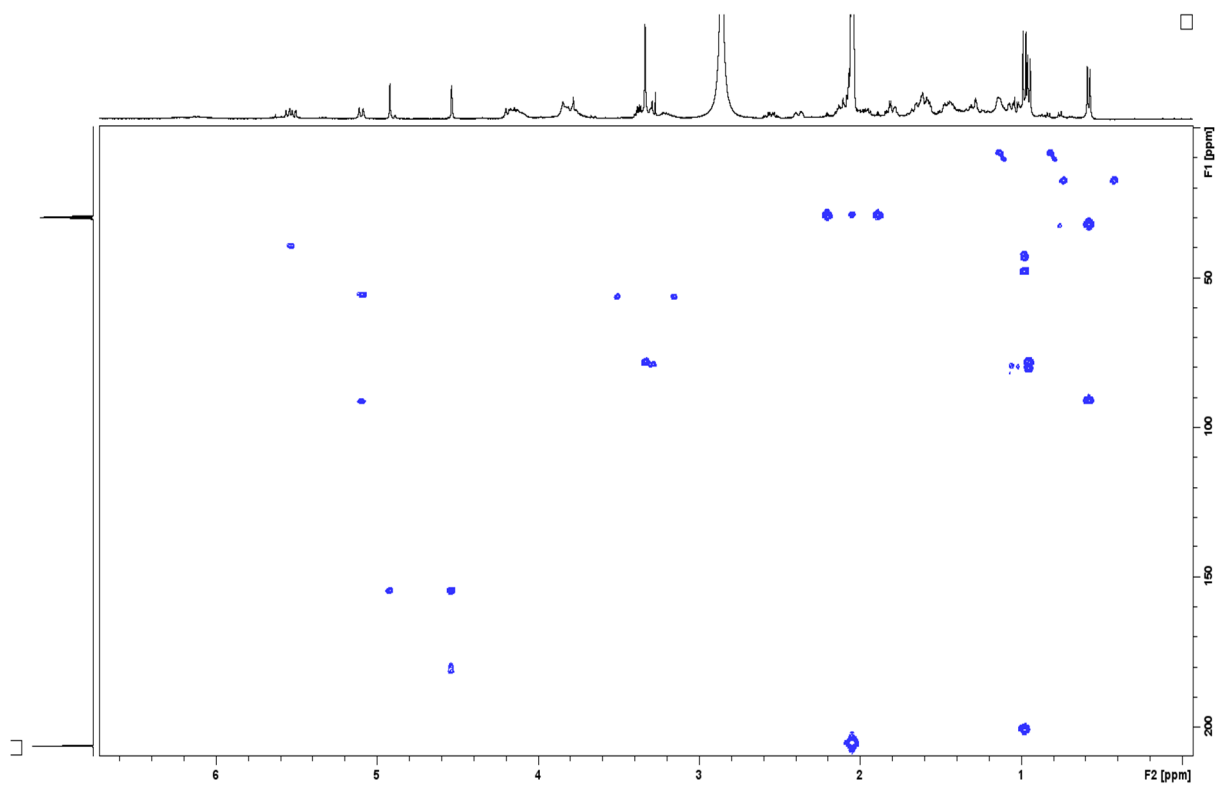
**Figure S6.** HMBC spectrum of **1**.



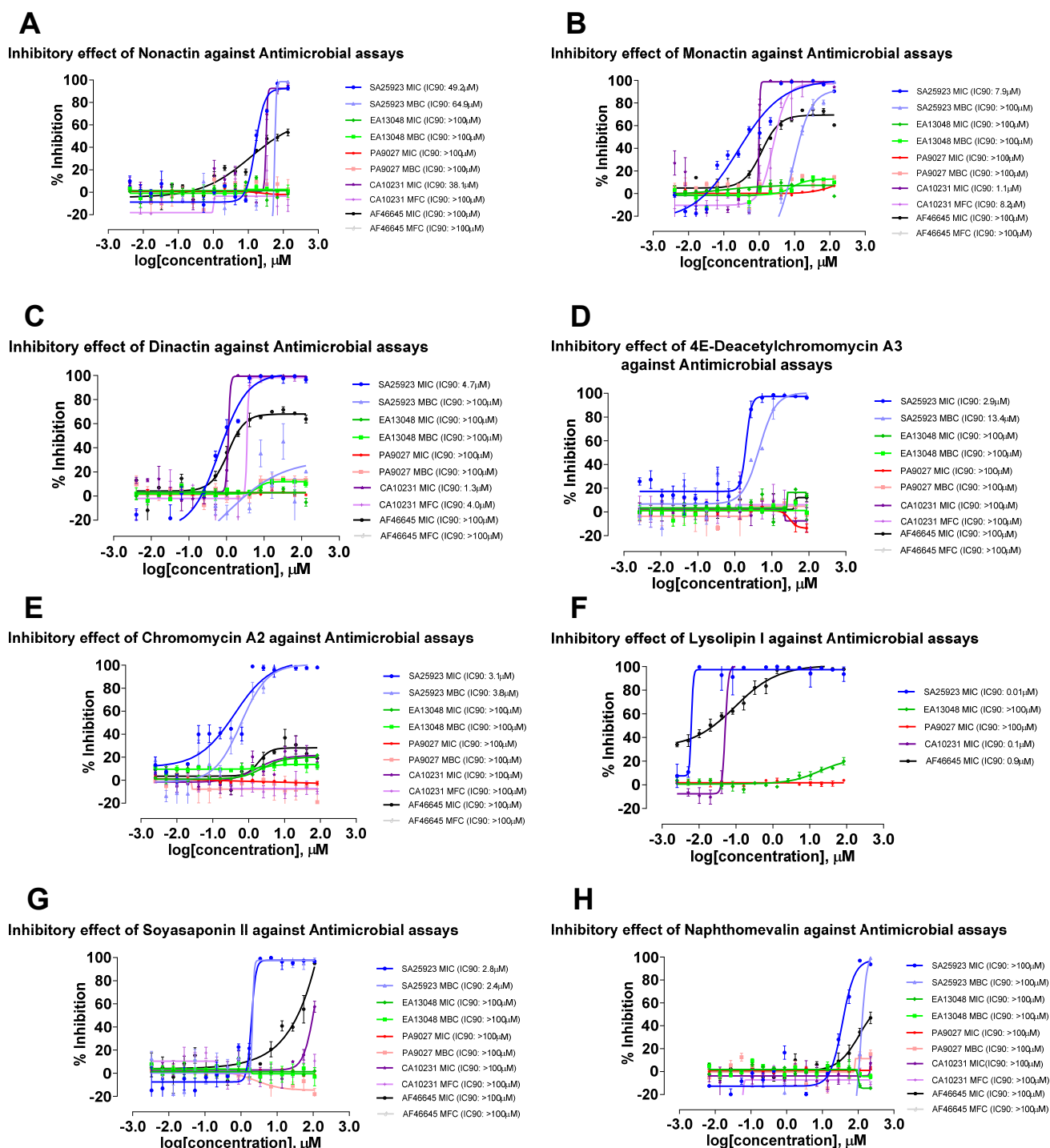
**Figure S7.**  $^1\text{H}$  NMR spectrum ( $(\text{CD}_3)_2\text{CO}$ , 400 MHz) of tetronomycin.



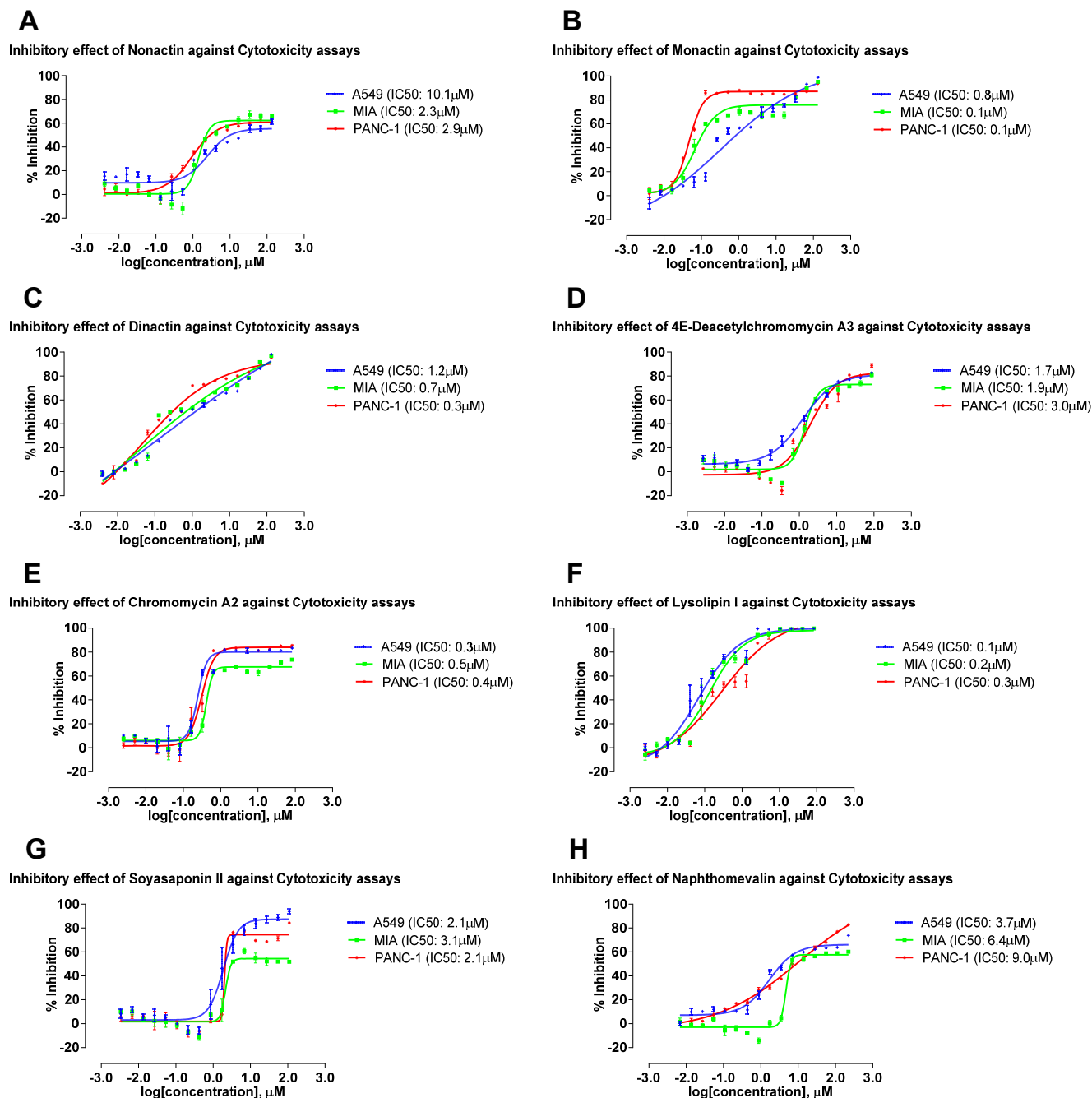
**Figure S8.** HSQC spectrum of tetronomycin.



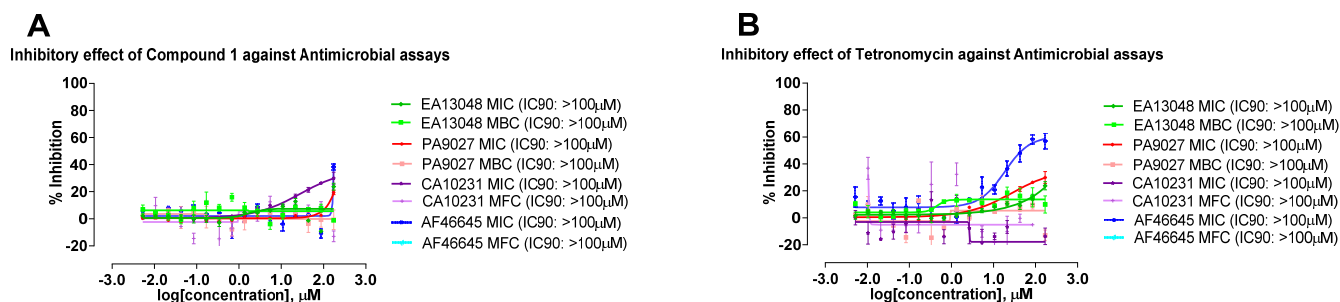
**Figure S9.** HMBC spectrum of tetronomycin.



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**Table S1.** Antimicrobial and cytotoxicity primary screening results of 4 actinobacteria strains grown in 5 different growth media.

Samples	Media	Antimicrobial (% Inhibition)					Cytotoxicity (% Inhibition)		
		KA	PA	SA	CA	AF	A549	MIA	PANC-1
A1099	CA02LB	<80	<80	85.9	96.7	<80	<80	<80	<80
	CA07LB	<80	<80	88.9	96.3	<80	<80	<80	<80
	CA08LB	<80	<80	99.0	99.7	<80	<80	<80	<80
	CA09LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA10LB	<80	<80	<80	<80	<80	<80	<80	<80
A1174	CA02LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA07LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA08LB	<80	<80	98.1	<80	<80	81.8	<80	<80
	CA09LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA10LB	<80	<80	<80	<80	<80	<80	<80	<80
A1301	CA02LB	<80	<80	<80	<80	97.0	<80	<80	<80
	CA07LB	<80	<80	80.9	92.8	<80	99.4	98.8	96.3
	CA08LB	<80	<80	99.5	<80	<80	<80	<80	<80
	CA09LB	<80	<80	99.5	<80	<80	<80	<80	<80
	CA10LB	<80	<80	92.2	98.9	95.5	98.9	96.3	95.6
A2461	CA02LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA07LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA08LB	<80	<80	98.5	<80	<80	<80	<80	<80
	CA09LB	<80	<80	<80	<80	<80	<80	<80	<80
	CA10LB	<80	<80	99.1	<80	<80	<80	<80	<80

<sup>1</sup>KA = *Klebsiella aerogenes*, PA = *Pseudomonas aeruginosa*, SA = *Staphylococcus aureus* Rosenbach, CA = *Candida albicans* and AF = *Aspergillus fumigatus*.

<sup>2</sup>A549 = human lung carcinoma cells, MIA = pancreatic cancer cells and PANC-1 = pancreatic cancer cells.

Antimicrobial effect and cytotoxic activity (average growth inhibition  $\geq$  80%).