

*Supporting Information for*

# **The Marine Depsipeptide Nobilamide I Inhibits Cancer Cell Motility and Tumorigenicity via Suppressing Epithelial-Mesenchymal Transition and MMP2/9 Expression**

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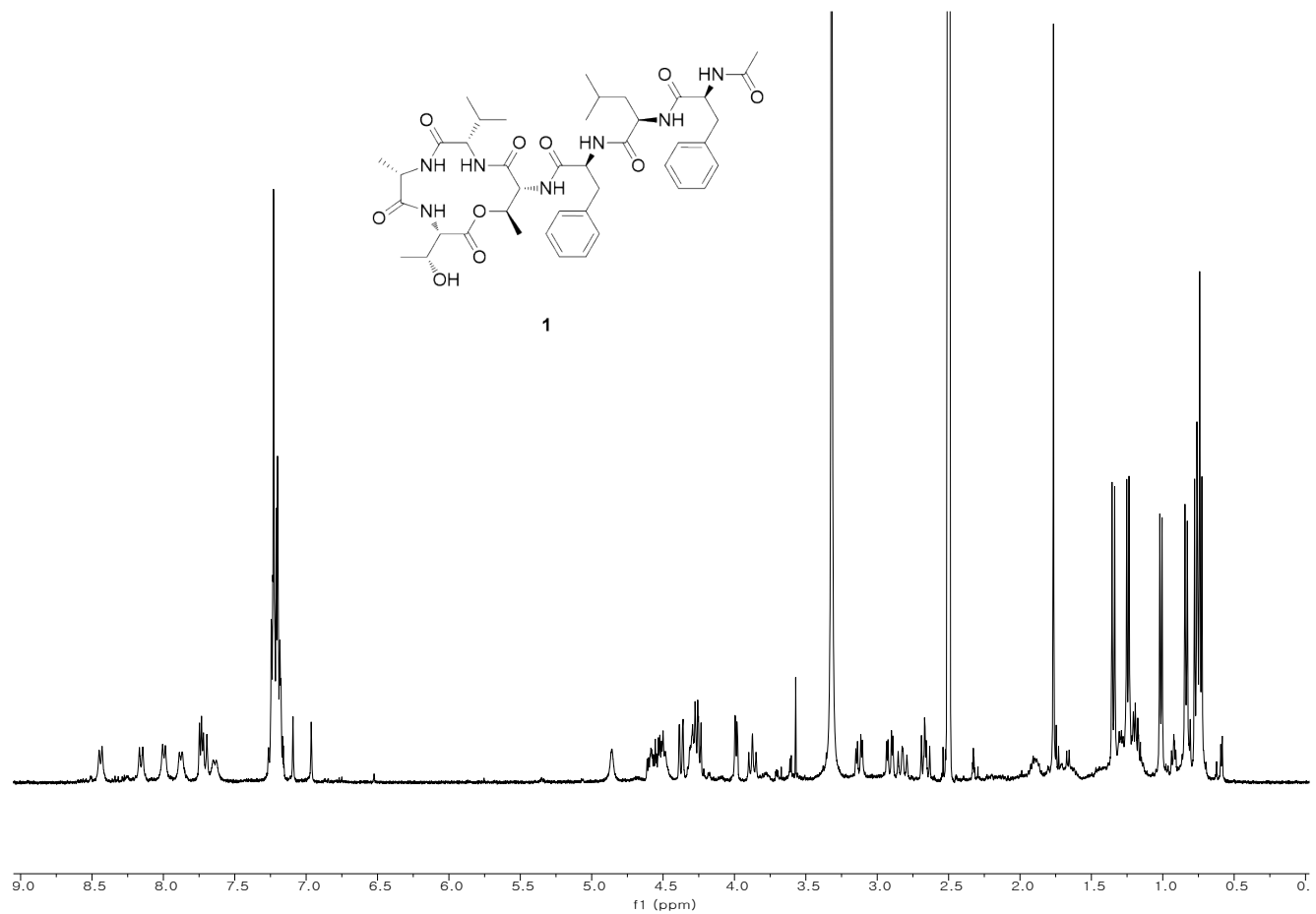
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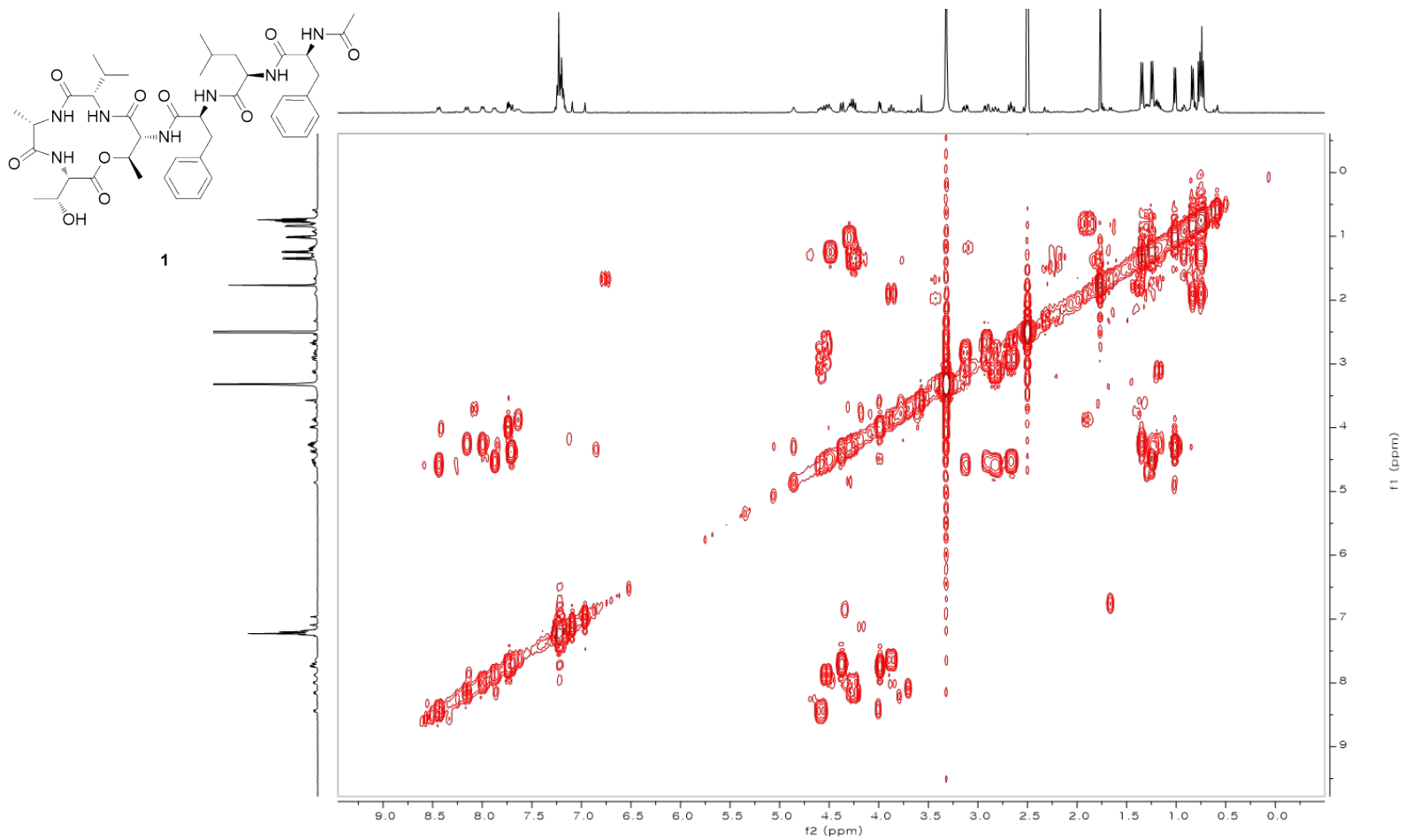
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**Figure S1.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-}d_6$ ) of nobilamide I (**1**)

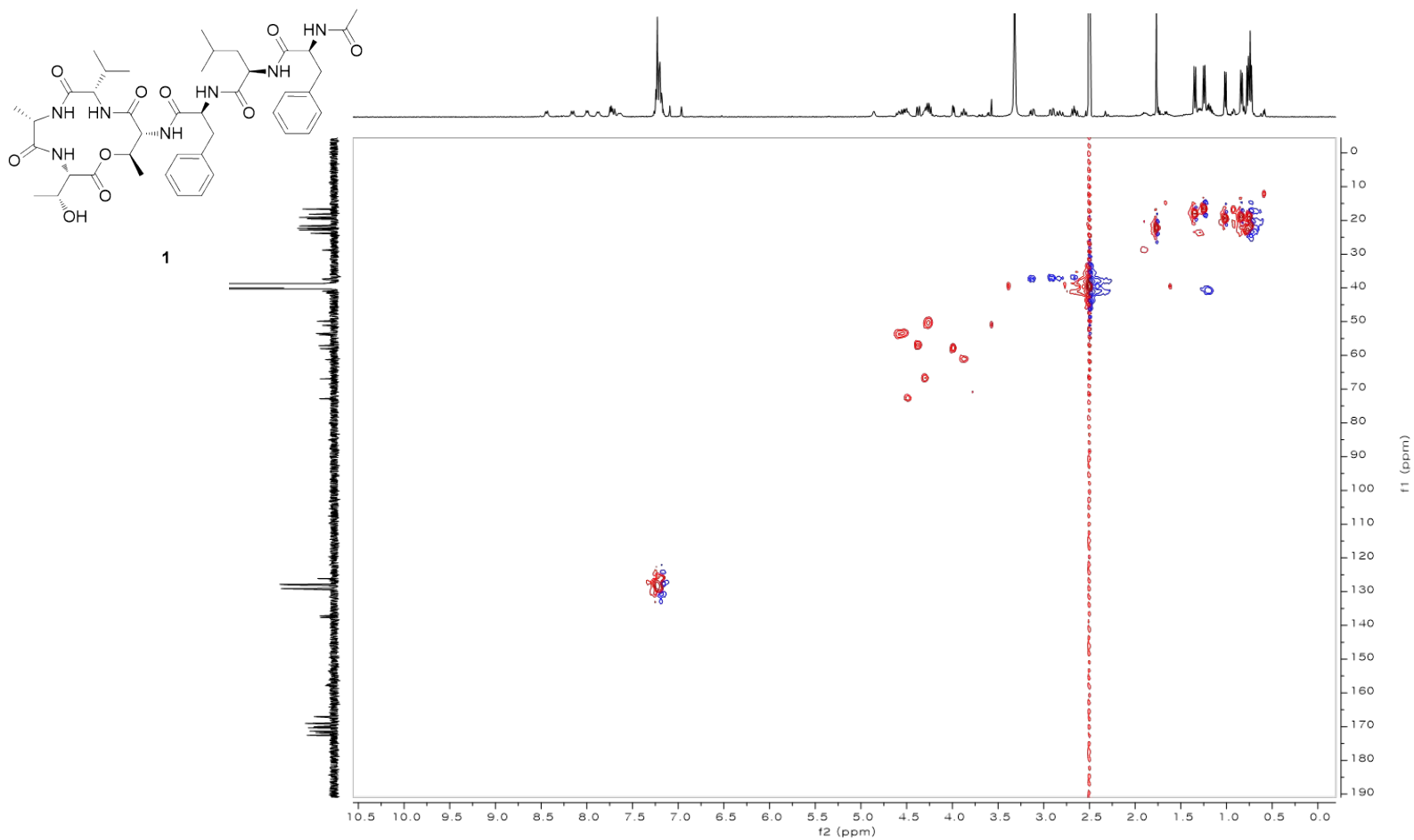




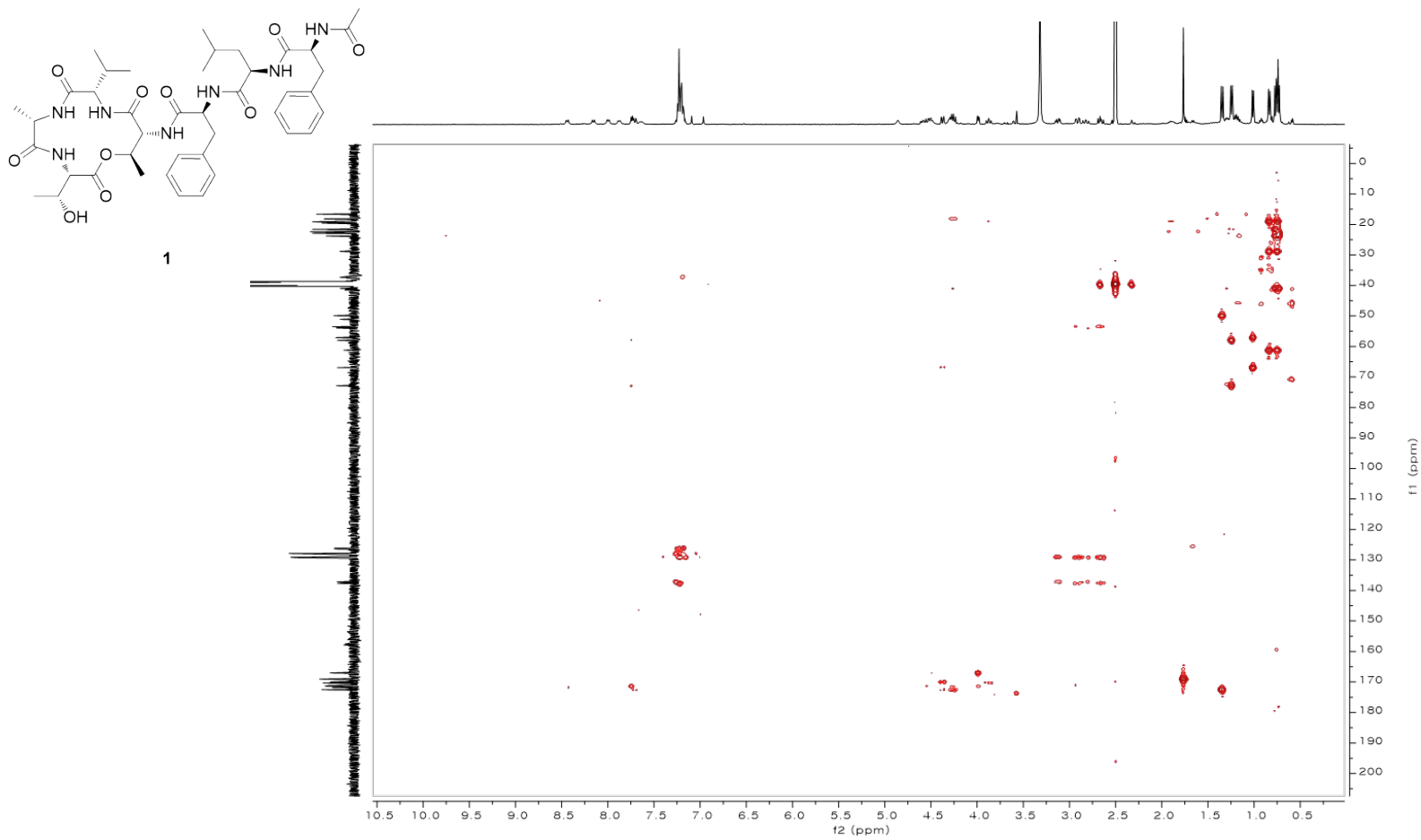
**Figure S3.** COSY spectrum (500 MHz, DMSO-*d*<sub>6</sub>) of nobilamide I (**1**)



**Figure S4.** HSQC spectrum (500 MHz, DMSO-*d*<sub>6</sub>) of nobilamide I (**1**)

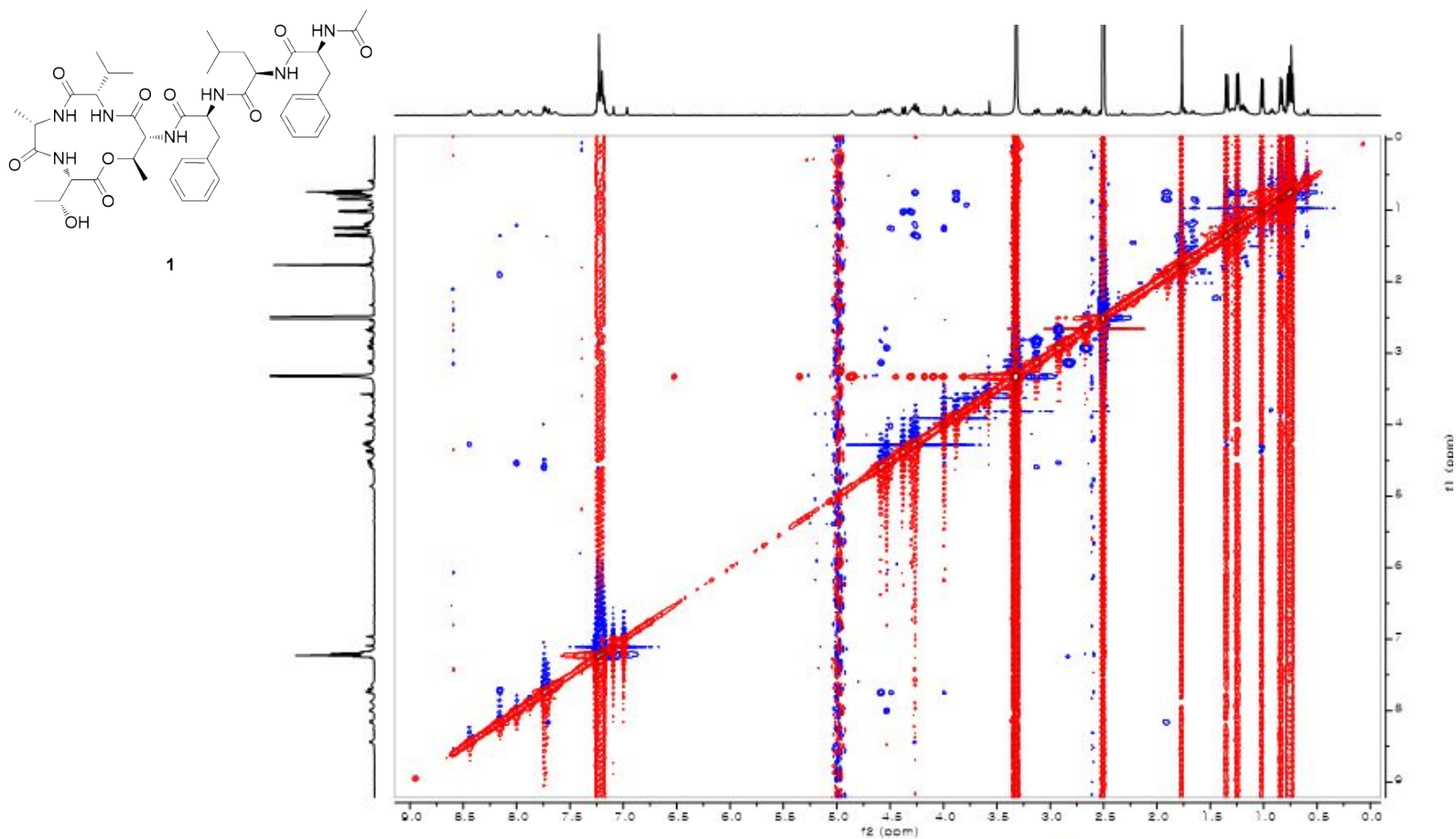


**Figure S5.** HMBC spectrum (500 MHz, DMSO-*d*<sub>6</sub>) of nobilamide I (**1**)

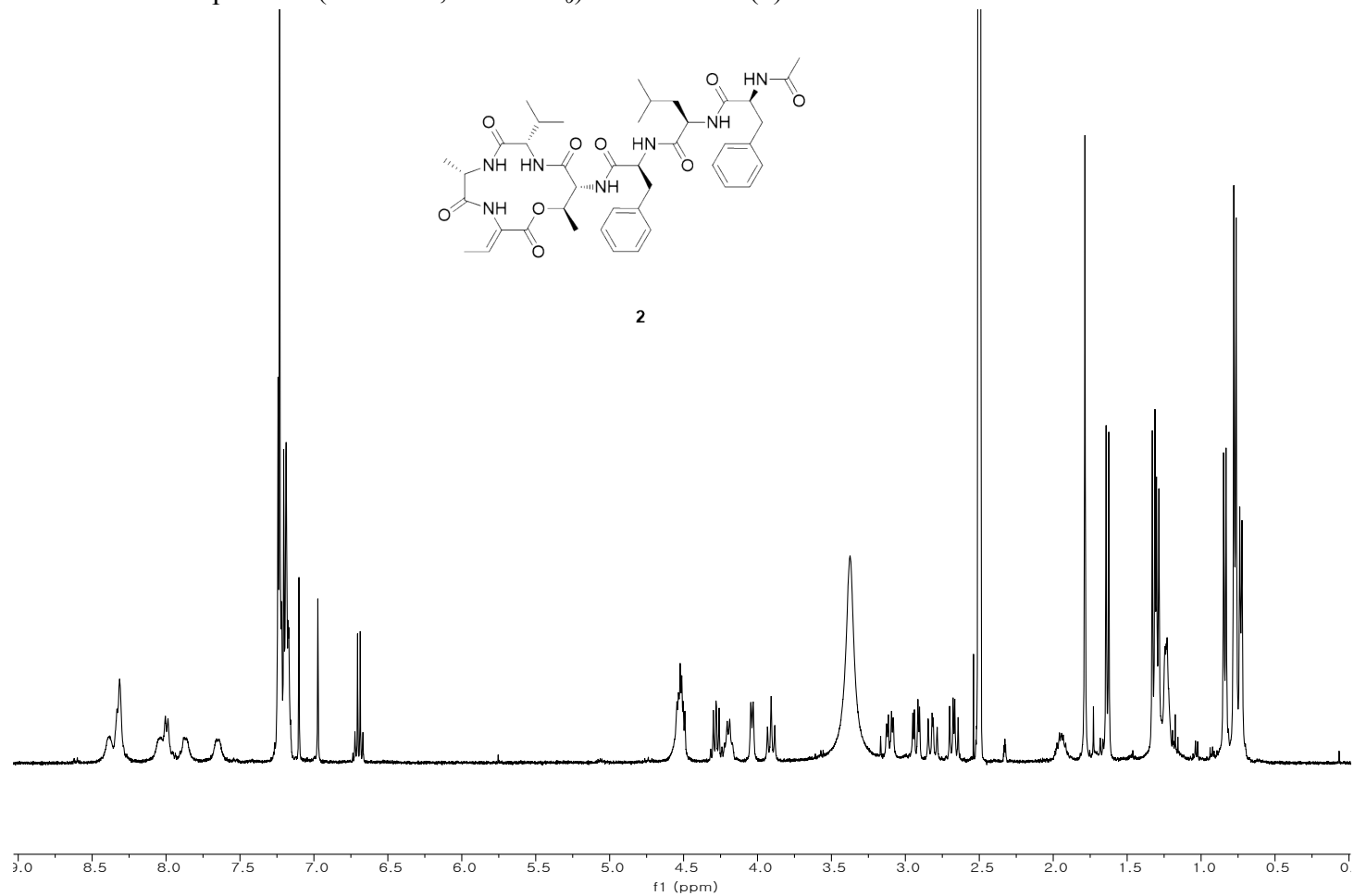




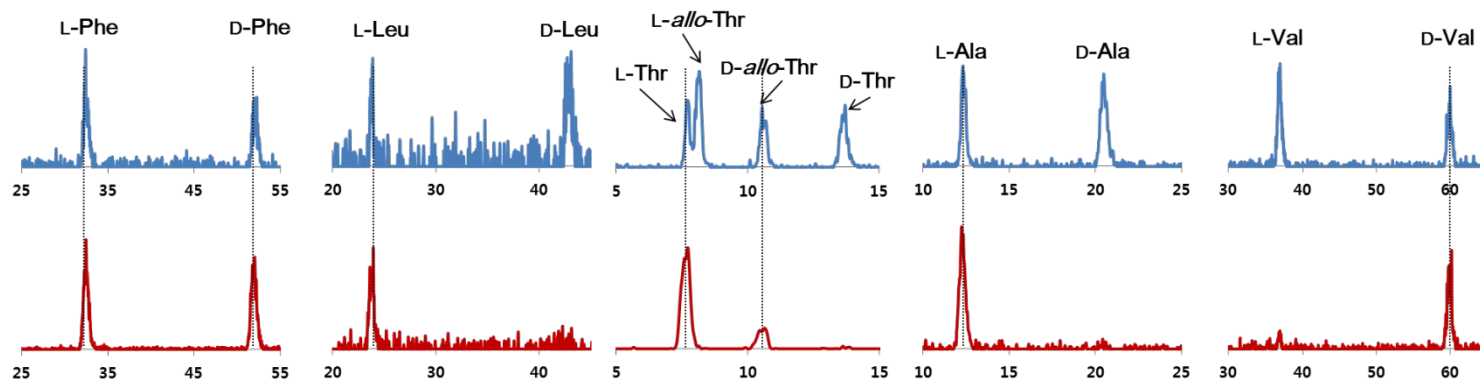
**Figure S6.** ROESY spectrum (500 MHz, DMSO- $d_6$ ) of nobilamide I (**1**)



**Figure S7.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-}d_6$ ) of A-3302-B (**2**)



**Figure S8.** LC-MS chromatograms of L-FDLA derivatives of with authentic standard amino acids (blue) and nobilamide I (1) (red)



**Table S1.** LC/MS analysis of <sub>L</sub>-FDAA derivatives with nobilamide I (**1**) and standard amino acids

Amino acids (AA)	<i>m/z</i> range	Retention time (min)				Absolute configurations
		L-AA-L-FDAA	L- <i>allo</i> -AA-L-FDAA	D- <i>allo</i> -AA-L-FDAA	D-AA-L-FDAA	
Standards	Phe	415-417	32.4		52.0	
	Leu	381-383	36.8		59.9	
	Thr	369-371	7.7	8.2	10.5	13.7
	Ala	339-341	12.3			20.5
	Val	367-369	23.9			42.9
Nobilamide I ( <b>1</b> )	Phe	415-417	32.4		52.0	L/D
	Leu	381-383			59.9	D
	Thr	369-371	7.7		10.5	L-/D- <i>allo</i>
	Ala	339-341	12.3			L
	Val	367-369	23.9			L