

Supporting Information

Antiplatelet and antithrombotic effects of isaridin E isolated from the marine-derived fungus via down-regulating PI3K/Akt signaling pathway

Ni Pan^{1,2}, Zi-Cheng Li¹, Zhi-Hong Li¹, Sen-Hua Chen³, Ming-Hua Jiang³, Han-Yan Yang¹, Yao-Sheng Liu¹, Rui Hu¹, Yu-Wei Zeng¹, Le-Hui Dai⁴, Lan Liu^{3, *}, and Guan-lei Wang^{1, *}

¹ Department of Pharmacology, Zhongshan School of Medicine, Sun Yat-sen University, Guangzhou, 510080, China.

² Institute of Pediatrics, Guangzhou Women and Children's Medical Centre, Guangzhou Medical University, Guangzhou, 510080, China.

³ School of Marine Sciences, Sun Yat-sen University, Guangzhou 510006, China.

⁴ Department of Basic Medical Sciences, Zhongshan School of Medicine, Sun Yat-sen University, Guangzhou, 510080, China.

* Correspondence: wangglei@mail.sysu.edu.cn (W.G.L); cesllan@mail.sysu.edu.cn (L.L). Tel. : +86-20-87330300.

Contents

Figure S1. The HR-ESIMS spectrum of compound 1.....	2
Figure S2. The ¹ H NMR (400MHz) spectrum of compound 1 in CDCl ₃	2
Figure S3. The ¹³ C NMR (100MHz) spectrum of compound 1 in CDCl ₃	3
Table S1. Effects of isaridin E on the hematologic parameters.	3
Table S2. Effects of isaridin E on the coagulation parameters.	4

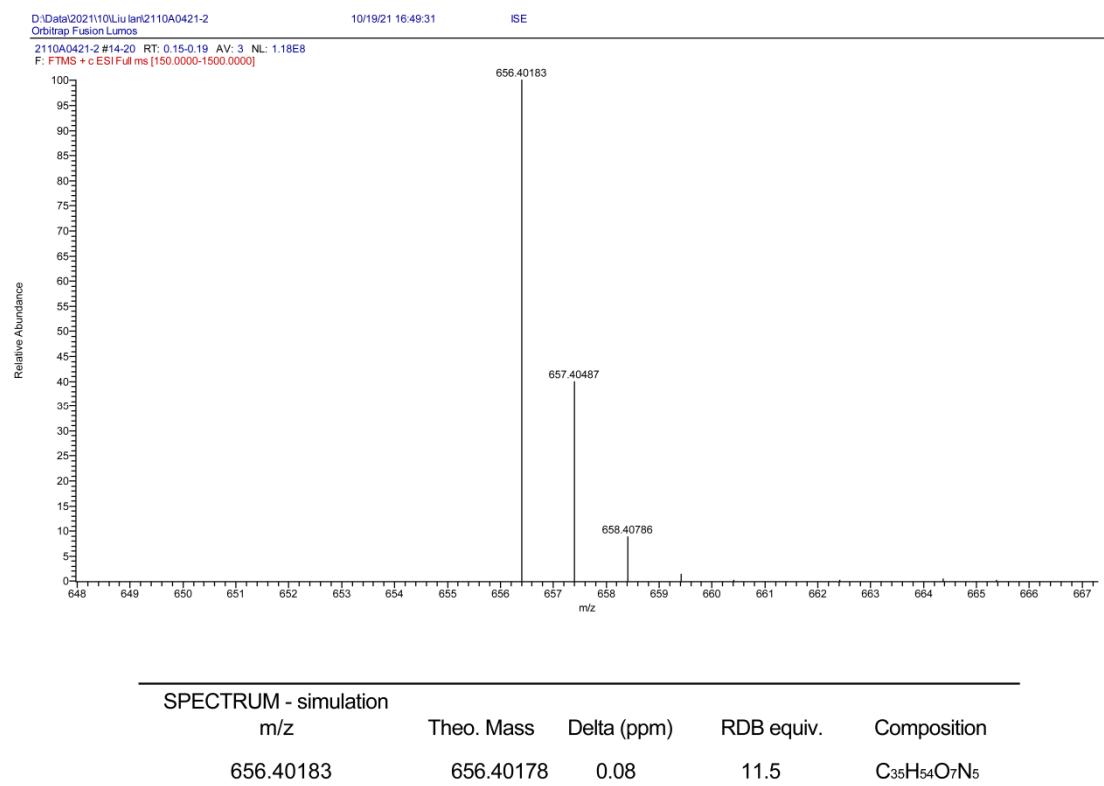


Figure S1. The HR-ESIMS spectrum of compound 1 (isaridin E).

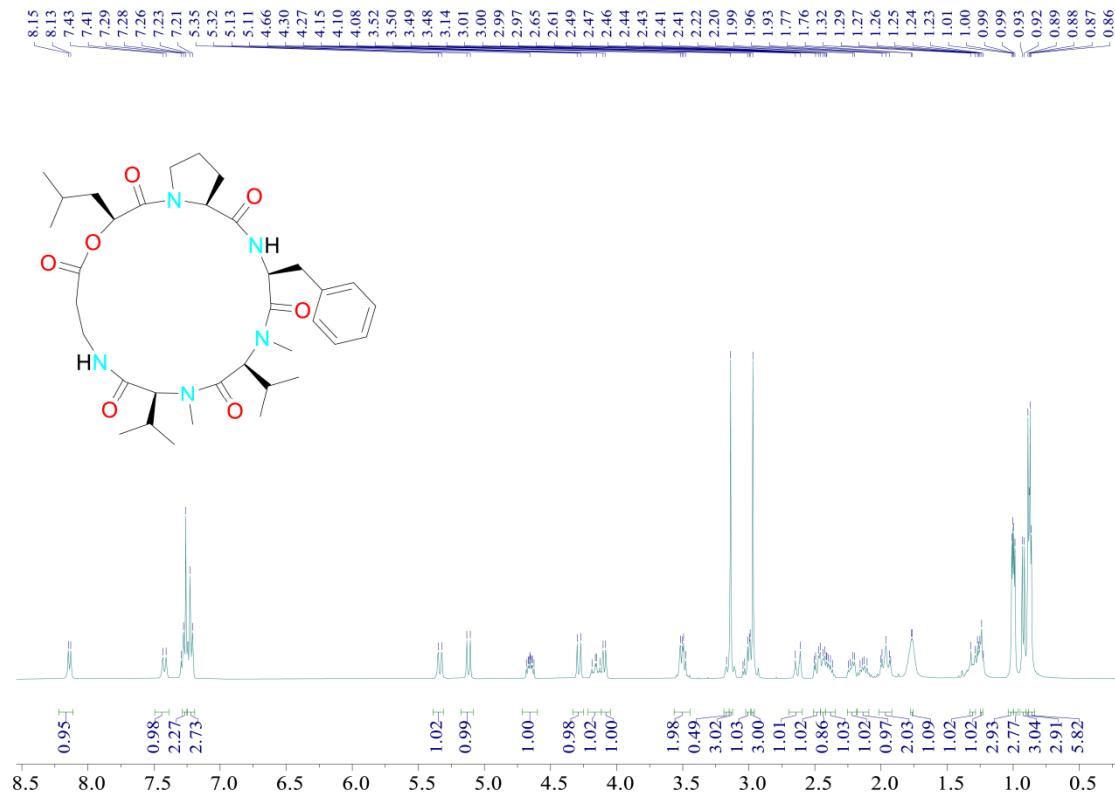


Figure S2. The ¹H NMR (400MHz) spectrum of compound 1 (isaridin E) in CDCl₃.

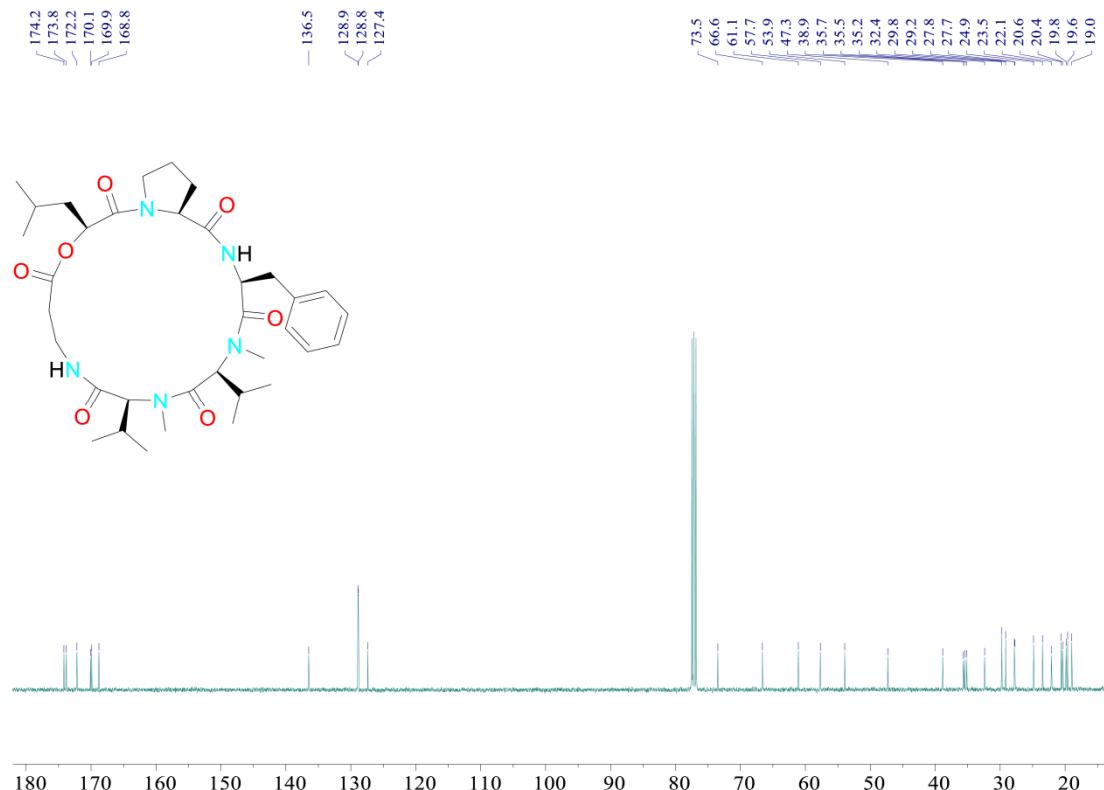


Figure S3. The ^{13}C NMR (100MHz) spectrum of compound 1 (isaridin E) in CDCl_3 .

Table S1. Effects of isaridin E on the hematologic parameters.

	NS	Vehicle	Isaridin E	P^1 value	P^2 value
PLT ($10^9/\text{L}$)	1303 ± 114	1267 ± 77	1233 ± 65	0.8010	0.6100
MPV (fL)	5.1 ± 0.3	4.9 ± 0.3	5.3 ± 0.3	0.6763	0.7896
WBC ($10^9/\text{L}$)	3.3 ± 0.6	2.8 ± 0.4	3.3 ± 0.5	0.4372	0.9799
LY % (%)	84.2 ± 2.2	82.3 ± 3.0	83.1 ± 2.5	0.6325	0.7407
MO % (%)	2.9 ± 0.7	3.4 ± 0.7	2.7 ± 0.6	0.6400	0.8544
NE % (%)	13.1 ± 2.1	14.2 ± 2.0	14.8 ± 2.2	0.7200	0.5984
RBC ($10^{12}/\text{L}$)	8.0 ± 0.4	7.6 ± 0.6	7.8 ± 0.3	0.5521	0.6919
HCT (%)	39.2 ± 0.8	38.3 ± 1.2	39.5 ± 1.4	0.5518	0.8662
MCV (fL)	51.4 ± 0.7	52.1 ± 0.6	51.1 ± 0.8	0.4805	0.7655
MCH (pg)	17.1 ± 0.5	17.5 ± 0.6	17.3 ± 0.4	0.6161	0.7695
MCHC (g/L)	328 ± 8	325.8 ± 5	330 ± 8	0.8287	0.8616
RDW (%)	15.6 ± 0.4	15.9 ± 0.5	15.2 ± 0.5	0.6035	0.5828

Note: Mice were given a single dose of normal saline (NS), vehicle solution (Vehicle) or isaridin E (100 mg/kg) respectively by gavage for 3 h, and then the hematologic parameters were measured. P^1 , NS vs Vehicle; P^2 , NS vs isaridin E, $n=5$ mice for each group. PLT, platelet count; MPV, mean platelet volume; WBC, white blood cell; LY %, lymphocyte percentage; MO %, monocyte percentage; NE %, neutrophil percentage; RBC, red blood cell; HCT, hematocrit; MCV, mean red blood cell volume; MCH, mean red blood cell hemoglobin; MCHC, mean red blood cell hemoglobin concentration; RDW, red cell distribution width.

Table S2. Effects of isaridin E on the coagulation parameters.

	ATPP (s)	PT (s)	TT (s)	FIB (g/L)
NS	30.5 ± 1.5	12.5 ± 0.4	14.6 ± 0.5	3.2 ± 0.1
Vehicle	31.3 ± 1.1	11.8 ± 0.3	15.0 ± 0.6	3.3 ± 0.2
Isaridin E	32.4 ± 1.0	12.1 ± 0.4	14.0 ± 0.8	3.1 ± 0.1
<i>P</i> ¹ value	0.6496	0.2415	0.5909	0.7135
<i>P</i> ² value	0.2924	0.5349	0.5425	0.4417

Note: 3 h after mice were administrated with a single dose of saline (NS), vehicle solution (Vehicle) or isaridin E (100 mg/kg) by oral gavage, coagulation parameters were analyzed. *P*¹, NS vs Vehicle; *P*², NS vs isaridin E, n = 5 mice/group. APTT, activated partial thromboplastin time; TT, thrombin time; FIB, fibrinogen; PT, prothrombin time.