

Supporting Information

Rec. Nat. Prod. X:X (2019) XX-XX

Bioassay-Guided Isolation of Topoisomerase I Poison from *Paphiopedilum callosum* (Rchb.f.) Stein

**San Yoon Nwe¹, Chayapol Tunghatthong^{1,2}, Areerat Laorpaksa³,
Boonchoo Sritularak¹, Witchuda Thanakijcharoenpath¹,
Somboon Tanasupawat³ and Suchada Sukrong^{1,2,*}**

¹*Department of Pharmacognosy and Pharmaceutical Botany, Chulalongkorn University Drug and Health Products Innovation Promotion Center (CU.D. HIP), Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, 10330 Thailand*

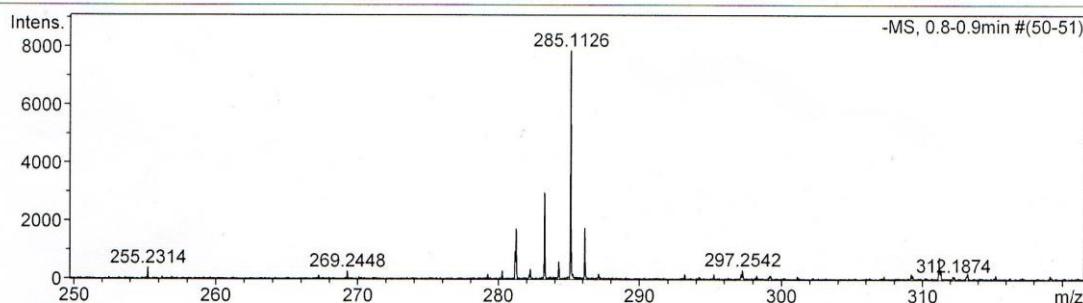
²*Research Unit of DNA Barcoding of Thai Medicinal Plants, Chulalongkorn University, 10330, Thailand*

³*Department Biochemistry and Microbiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, 10330, Thailand*

Table of Contents	Page
Figure S1: ESI-MS spectrum of compound 1	2
Figure S2: ^1H -NMR (500 MHz, Acetone- d_6) spectrum of compound 1	3
Figure S3: ^1H -NMR (500 MHz, Acetone- d_6) spectrum of compound 1 (from 6.3- 7.5)	4
Figure S4: ^{13}C -NMR (125 MHz, Acetone- d_6) spectrum of compound 1	5
Figure S5: HSQC (500 MHz) spectrum of compound 1	6
Figure S6: New compound search report of SciFinder	7

Acquisition Parameter

Source Type	ESI	Ion Polarity	Negative	Set Corrector Fill	75 V
Scan Range	n/a	Capillary Exit	-120.0 V	Set Pulsar Pull	372 V
Scan Begin	50 m/z	Hexapole RF	400.0 V	Set Pulsar Push	372 V
Scan End	3000 m/z	Skimmer 1	-50.0 V	Set Reflector	1300 V
		Hexapole 1	-25.0 V	Set Flight Tube	9000 V
				Set Detector TOF	2295 V



#	m/z	I	I %	S/N	Res.
1	113.7204	52	0.7	4.0	4742
2	143.8712	52	0.7	4.1	4377
3	174.7592	44	0.6	3.2	7331
4	184.4298	32	0.4	2.3	7792
5	198.6564	38	0.5	2.6	6512
6	234.4761	35	0.4	2.3	8166
7	246.8008	48	0.6	3.0	7397
8	255.2314	370	4.7	23.2	6859
9	269.2448	252	3.2	15.4	4870
10	280.2592	273	3.5	16.4	5231
11	281.2405	1708	21.8	102.6	5369
12	283.2625	2956	37.7	177.0	5853
13	285.1126	7842	100.0	468.3	5885
14	286.1155	1741	22.2	103.8	5831
15	290.3796	29	0.4	1.7	9304
16	293.1758	159	2.0	9.4	5299
17	297.2542	296	3.8	17.3	3929
18	312.1874	104	1.3	5.9	3616
19	325.1859	1377	17.6	77.2	5559
20	339.2016	1584	20.2	85.5	5536
21	353.3313	348	4.4	18.2	4464
22	367.3583	821	10.5	41.2	5476
23	393.2770	1420	18.1	65.8	5728
24	411.3439	384	4.9	16.9	6184
25	421.1897	246	3.1	10.5	3451
26	437.1793	322	4.1	13.2	4734
27	443.2486	218	2.8	8.8	4178

Figure S1: ESI-MS spectrum of compound 1

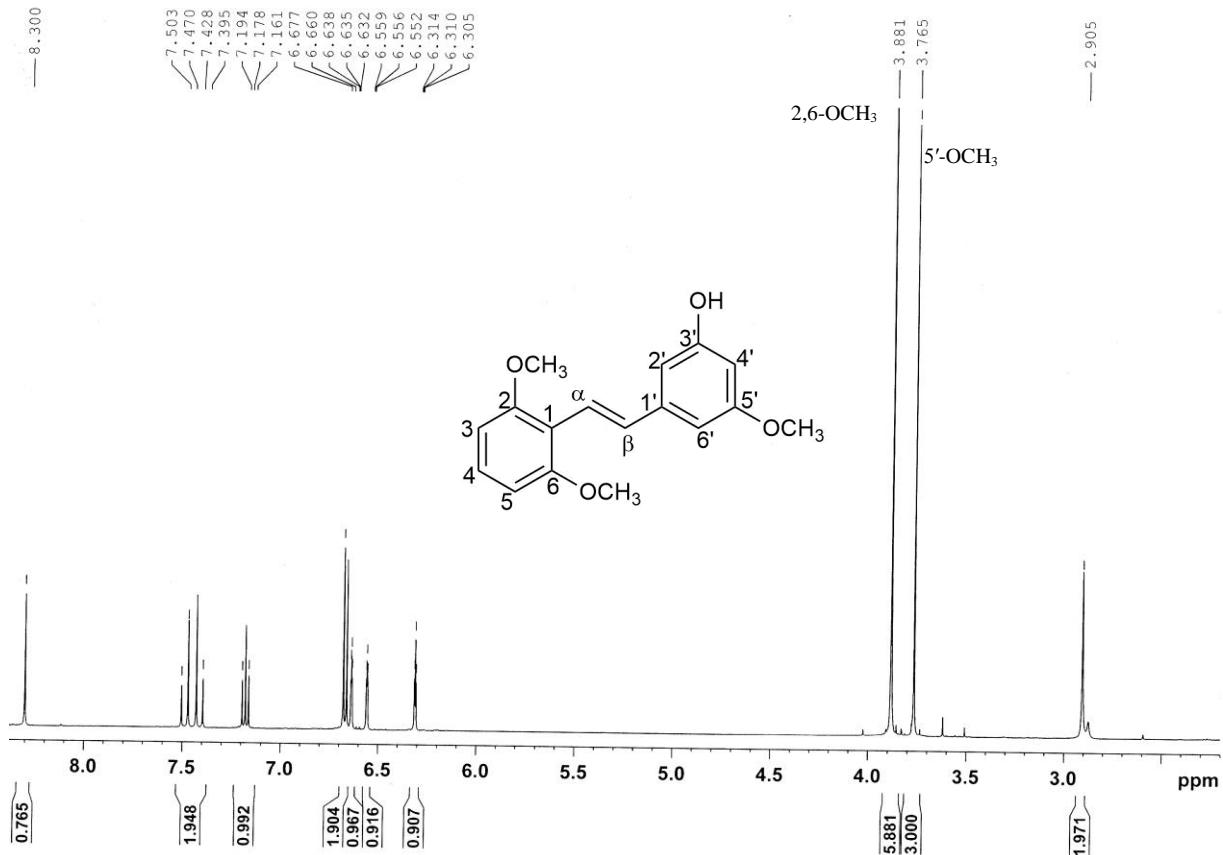


Figure S2: ¹H-NMR (500 MHz, Acetone-*d*₆) spectrum of compound 1

3'-hydroxy-2,6,5'-trimethoxystilbene: yellowish brown semisolid. ¹H-NMR (Acetone-*d*₆, 500 MHz), δ : 3.77 (1H, s, OCH₃-5'), 3.88 (2H, s, OCH₃-2 / 6), 6.31 (1H, t, H-4'), 6.56 (1H, t, H-6'), 6.64 (1H, t, H-2'), 6.67 (2H, d, H-3/5), 7.18 (1H, t, H-4), 7.41 (1H, d, H- α), 7.49 (1H, d, H- β), 8.30 (1H, s, OH-3'). ¹³C-NMR (Acetone-*d*₆, 125 MHz), δ : 55.4 (OCH₃-5'), 56.1(OCH₃-2 / 6), 101.2 (C-4'), 104.5 (C-6'), 104.9 (C-3/5), 106.2 (C-2'), 115.1(C-1), 120.8 (C- α), 129.3 (C-4), 132.9 (C- β), 142.4 (C-1'), 159.5 (C-3'), 159.6 (C-2/6), 162.1 (C-5'). ESIMS: *m/z* = 285.1126 [M] for formula C17H18O4.

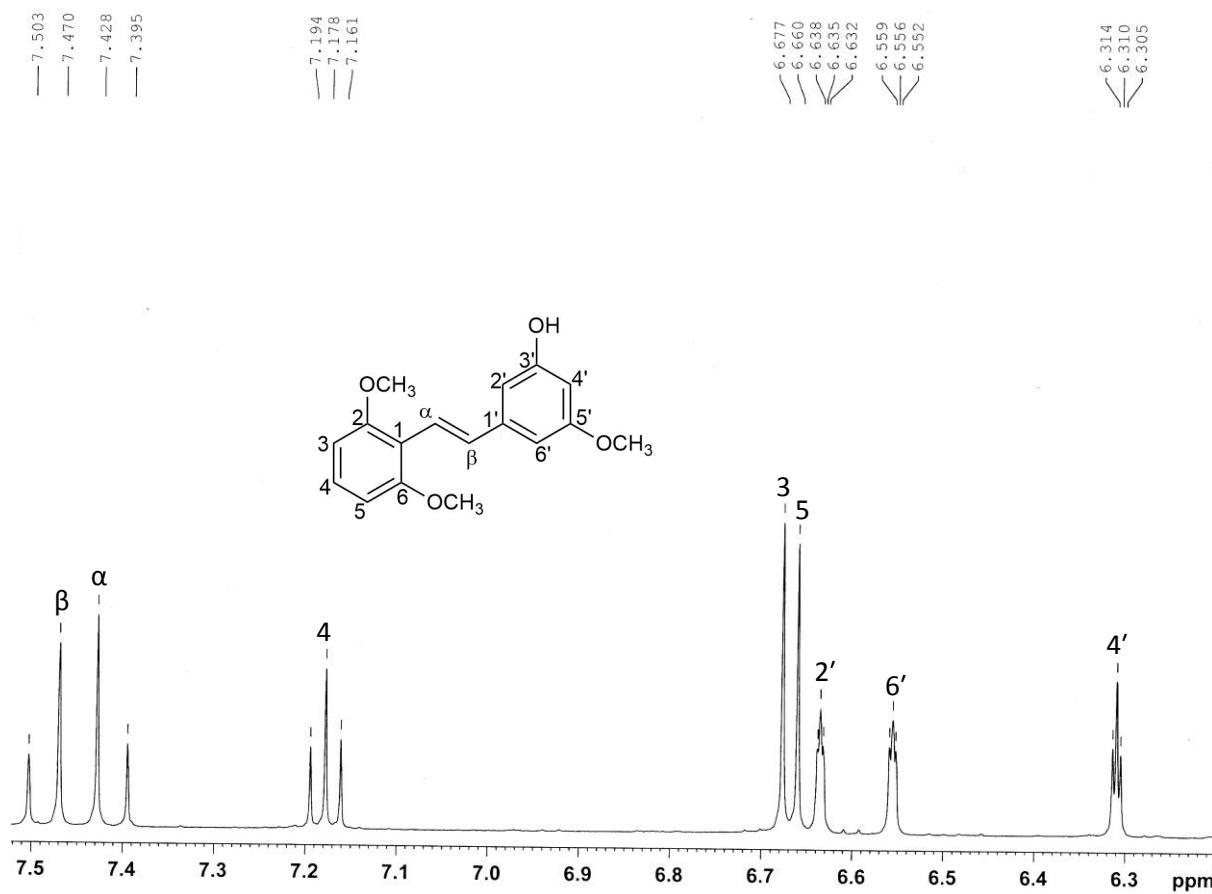


Figure S3: ^1H -NMR (500 MHz, Acetone- d_6) spectrum of compound **1** (from 6.3-7.5)

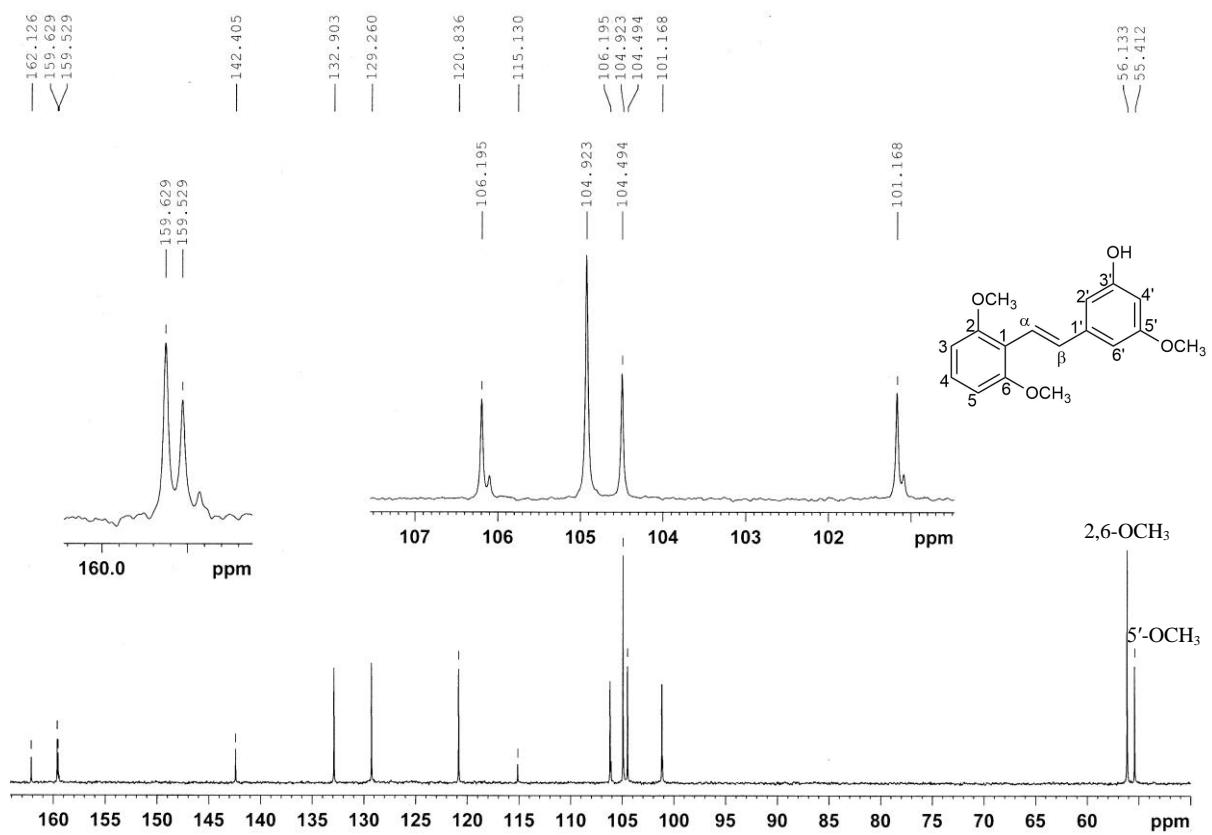


Figure S4: ^{13}C -NMR (125 MHz, Acetone- d_6) spectrum of compound 1

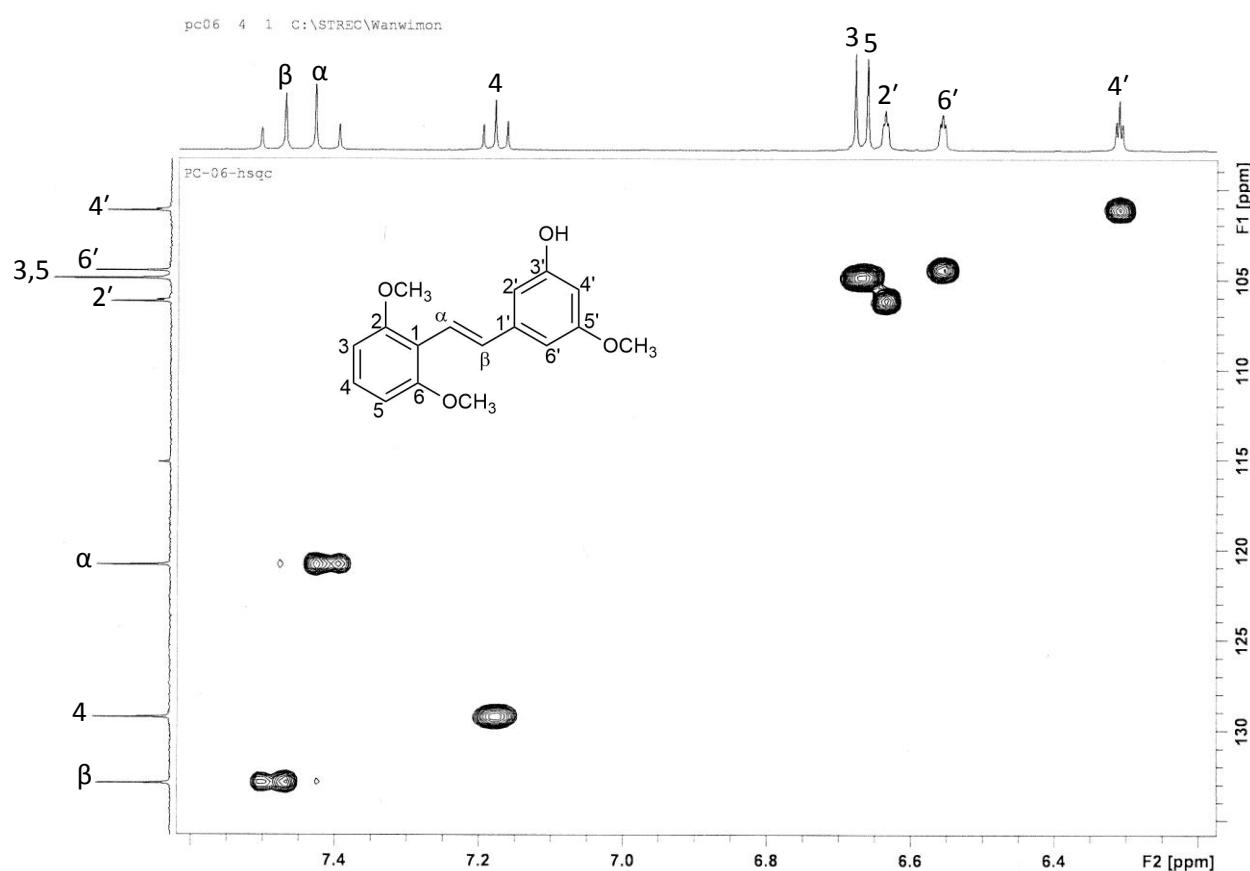
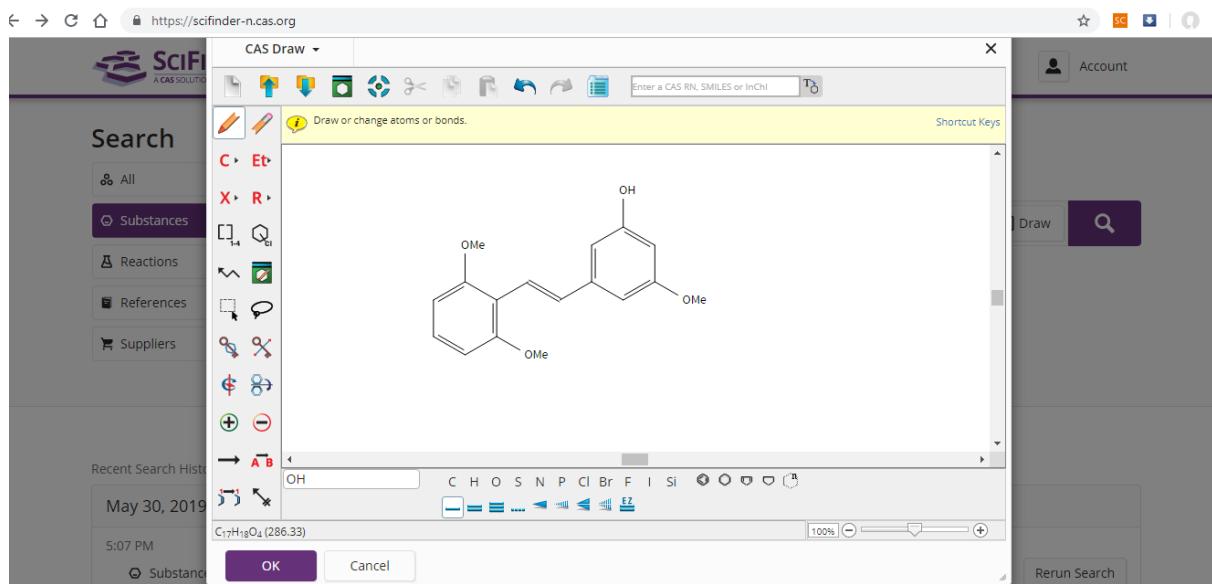


Figure S5: HSQC (500 MHz) spectrum of compound **1**



The screenshot shows the SciFinder search results page for the query "OH". The results are categorized under "Substances". There are four results listed:

- 1445898-18-9**: View Detail. Structure: Double bond geometry shown. C22H26O4. Description: 5-[(1E)-2-(2,6-Dimethoxyphenyl)ethenyl]-3-methoxy-2-(3-methyl-2-but-en-1-yl)pheno...
- 1445896-86-5**: View Detail. Structure: Double bond geometry shown. C19H20O6. Description: Benzoic acid, 2-[(1E)-2-(2,6-dimethoxyphenyl)ethenyl]-6-hydroxy-4-methoxymeth...
- 1445897-49-3**: View Detail. Structure: Double bond geometry shown. C23H26O6. Description: 6-[(1E)-2-(2,6-Dimethoxyphenyl)ethenyl]-2-hydroxy-4-methoxy-3-(3-methyl-2-butene-1-yl)phenoxo-6-hydroxy-4-methoxy-3-(3-methyl-2-butene-1-yl)phenylbenzoate...
- 1445897-83-5**: View Detail. Structure: Double bond geometry shown. C22H26O4. Description: 5-[(1E)-2-(2,6-Dimethoxyphenyl)ethenyl]-3-methoxy-2-(3-methyl-2-but-en-1-yl)pheno...

The sidebar on the left shows filters for "Structure Match" (As Drawn (0), Substructure (4), Similarity (56K)), "Analyze Structure Precision", and "Filter by" (Commercial Availability, Reaction Role, Reference Role). The top navigation bar includes "Substances", "Enter a query...", and "Edit" buttons.

Figure S6: New compound search report of SciFinder