

Supplementary Materials

Table S1: IC₅₀ values of antioxidant activities, DPPH and ABTS radical scavenging and total phenolic content of ethyl acetate extracts of *Xylaria* spp. and standard BHT and Trolox. Data expressed as means ± standard deviation. Means within each graph with different letters (a–g) differ significantly (P < 0.05)

Samples	DPPH	ABTS	TPC
	IC ₅₀ value (mg/ml)	IC ₅₀ value (mg/ml)	(g GAE/g extract)
<i>X. subintraflava</i> SWUF16-11.1	0.654 ± 0.032 ^e	0.054 ± 0.006 ^{bc}	1.954 ± 0.088 ^{bc}
<i>X. subintraflava</i> SWUF17-24.2	0.879 ± 0.040 ^f	0.119 ± 0.014 ^d	1.563 ± 0.031 ^{cde}
<i>X. siamensis</i> SWUF17-20.2	0.484 ± 0.017 ^d	0.047 ± 0.008 ^{bc}	2.232 ± 0.176 ^b
<i>X. chaiyaphumensis</i> SWUF17-49.2	0.831 ± 0.060 ^f	0.187 ± 0.030 ^e	1.278 ± 0.058 ^{ef}
<i>X. chaiyaphumensis</i> SWUF16-4.1	>1.00 ^g	0.283 ± 0.021 ^f	0.826 ± 0.123 ^f
<i>X. chaiyaphumensis</i> SWUF16-11.4	0.834 ± 0.012 ^f	0.109 ± 0.006 ^d	1.204 ± 0.043 ^{ef}
<i>X. thienhirunae</i> SWUF17-44.1	0.512 ± 0.012 ^d	0.047 ± 0.003 ^{bc}	2.009 ± 0.054 ^{bc}
<i>X. thienhirunae</i> SWUF16-10.1	0.541 ± 0.018 ^d	0.070 ± 0.004 ^c	1.789 ± 0.211 ^{bcd}
<i>X. thienhirunae</i> SWUF16-7.2	0.885 ± 0.022 ^f	0.133 ± 0.005 ^d	1.423 ± 0.124 ^{de}
<i>X. vinacea</i> SWUF18-2.3	0.194 ± 0.031 ^c	0.020 ± 0.004 ^{ab}	3.629 ± 0.381 ^a
BHT	0.105 ± 0.006 ^b	0.006 ± 0.000 ^a	-
Trolox	0.004 ± 0.000 ^a	0.003 ± 0.000 ^a	-

Data expressed as means ± standard deviation. Means within each column with different letters (a–g) differ significantly (P < 0.05).

Table S2: Cytotoxicity of EtOAc extracts of *Xylaria* spp. against four different cell lines, A549, HepG2, HeLa and PNT2, at concentration of 100 µg/mL. Data expressed as means ± standard deviation. Means within each graph with different letters (a–g) differ significantly (P < 0.05)

Samples	% Cell viability			
	A549	HepG2	HeLa	PNT2
<i>X. subintraflava</i> SWUF16-11.1	13.16 ± 3.59 ^a	11.15 ± 0.32 ^a	11.97 ± 1.28 ^a	13.17 ± 2.37 ^a
<i>X. subintraflava</i> SWUF17-24.2	28.58 ± 0.95 ^b	38.54 ± 1.90 ^b	34.86 ± 5.05 ^b	59.94 ± 6.76 ^{bc}
<i>X. siamensis</i> SWUF17-20.2	83.09 ± 7.79 ^{ef}	83.85 ± 8.50 ^{ef}	64.15 ± 9.35 ^{cd}	80.95 ± 2.63 ^{de}
<i>X. chaiyaphumensis</i> SWUF17-49.2	45.14 ± 2.53 ^c	51.92 ± 3.27 ^{bc}	61.20 ± 4.20 ^{cd}	73.10 ± 2.45 ^{cd}
<i>X. chaiyaphumensis</i> SWUF16-4.1	69.64 ± 4.37 ^{de}	75.38 ± 5.30 ^{de}	63.74 ± 2.02 ^{cd}	72.00 ± 5.55 ^{cd}
<i>X. chaiyaphumensis</i> SWUF16-11.4	73.66 ± 7.56 ^{def}	67.02 ± 5.81 ^{cd}	55.46 ± 0.60 ^c	60.57 ± 8.52 ^{bc}
<i>X. thienhirunae</i> SWUF17-44.1	86.47 ± 2.97 ^{fg}	78.05 ± 5.58 ^{de}	66.69 ± 3.83 ^{cd}	88.84 ± 3.48 ^{ef}
<i>X. thienhirunae</i> SWUF16-10.1	87.26 ± 7.45 ^{fg}	104.12 ± 6.55 ^g	91.82 ± 1.91 ^e	99.68 ± 4.67 ^f
<i>X. thienhirunae</i> SWUF16-7.2	66.44 ± 5.85 ^d	77.28 ± 11.26 ^{de}	71.23 ± 4.41 ^d	79.67 ± 0.57 ^{de}
<i>X. vinacea</i> SWUF18-2.3	72.72 ± 1.33 ^{de}	75.06 ± 4.47 ^{de}	42.65 ± 3.32 ^b	49.78 ± 6.32 ^b
Doxorubicin	20.32 ± 1.09 ^{ab}	19.47 ± 0.37 ^a	15.99 ± 0.55 ^a	18.47 ± 4.40 ^a
Medium	100.00 ^g	100.00 ^{fg}	100.00 ^e	100.00 ^f

Data expressed as means ± standard deviation. Means within each column with different letters (a–g) differ significantly (P < 0.05).

Table S3: Mass spectra data of peaks from *Xylaria* species and identified compounds

Peak No.	<i>t_R</i> (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
1	2.14-2.20	197.1, 227.1, 261.1	all		prednisone	steroids derivatives	
2	3.19-3.42	183.1, 211.1	all		xylaropyrone	pyrone	
3	4.24-4.35	154.0, 217.1, 245.1, 331.0	all		unknown 1		
4	6.54	233.0, 389.1, 411.0, 799.1	SWUF18-2.3		unknown 2		
5	9.31-9.72	402.2, 556.2, 562.2, 578.2, 1103.4, 1133.4	SWUF16-11.1		unknown 3		
6	10.27	217.1, 245.1, 313.1	SWUF17-24.2		unknown 4		
7	10.32	185.0, 222.1, 268.1, 302.0, 375.1	SWUF18-2.3		unknown 5		
8	10.52	151.0, 183.1, 225.1, 285.1, 331.1	SWUF16-7.2		unknown 6		
9	11.22-11.29	404.2, 428.2, 446.2, 524.2, 546.2, 1069.5	SWUF16-11.1, SWUF17-24.2	524.2, [M+H] ⁺ , 546.2, [M+Na] ⁺	19,20-epoxy cytochalasin C or derivative	cytochalasin	[1]
10	11.37	233.0, 373.1,	SWUF18-2.3		11- α -acetoxyprogesterone	progesterone	

Peak No.	t_R (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
		395.0, 767.1					
11	11.67-11.69	173.0, 285.1, 343.1, 469.1, 627.1	SWUF16-10.1, SWUF16-7.2		unknown 7		
12	11.71	173.0, 309.1, 469.1, 627.1	SWUF16-11.4		unknown 8		
13	11.84	267.1, 285.1, 357.2	SWUF17-44.1		lagochilin	diterpene	
14	12.46	188.1, 343.2, 665.4, 695.3	SWUF17-24.2		unknown 9		
15	12.86-12.94	370.1, 404.2, 524.2, 546.2, 562.2, 1069.5	SWUF16-11.1	524.2, [M+H] ⁺ , 546.2, [M+Na] ⁺	19,20-epoxy cytochalasin C or derivative	cytochalasin	[1]
16	13.18	223.1, 322.2, 325.1, 385.2, 398.2	SWUF16-10.1		unknown 10		
17	13.48-13.61	404.2, 428.2, 446.2, 524.2, 546.2, 562.2, 1069.5	SWUF16-11.1, SWUF17-24.2	524.2, [M+H] ⁺ , 546.2, [M+Na] ⁺	19,20-epoxy cytochalasin C or derivative	cytochalasin	[1]
18	14.28	287.1, 373.1	SWUF18-2.3		unknown 11		
19	14.34-14.38	169.1, 225.1, 285.1, 325.1, 357.2	SWUF17-44.1, SWUF16-10.1		colchicine	tropones	

Peak No.	t_R (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
20	14.51-14.58	418.2, 434.3, 597.3 , 619.3	SWUF16-11.1		unknown 12		
21	14.53	263.1 , 327.1, 437.2	SWUF17-20.2		unknown 13		
22	14.71	287.1, 315.1, 701.2 , 1051.4, 1401.5	SWUF18-2.3		andrographolide	diterpenoid	
23	14.78	196.0, 352.2, 431.2 , 453.2, 883.4	SWUF17-49.2	431.2 [M + H] ⁺ , 883.5 [2 M + Na] ⁺	euphyperin B	triterpenoids	[2]
24	14.81	287.2 , 345.0 , 437.2, 501.2, 675.2	SWUF16-7.2		unknown 14		
25	14.86	321.2, 357.2 , 437.2	SWUF16-10.1		unknown 15		
26	14.91	287.1, 509.2 , 675.2, 995.5	SWUF16-11.4		unknown 16		
27	15.54-15.59	265.1, 402.2, 430.2, 530.2 , 546.2, 1037.5	SWUF16-11.1		unknown 17		
28	15.89	367.2 , 383.2	SWUF18-2.3		tofisopam	benzodiazepines	
29	16.14	151.1, 243.1, 370.2, 517.3 , 539.3	SWUF17-24.2		rottlerin	polyphenol	

Peak No.	t_R (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
30	16.21	177.1, 269.1, 297.1, 315.1 , 369.2	SWUF16- 11.4		unknown 18		
31	16.23	151.1, 243.1, 370.2, 517.3 , 539.3	SWUF16- 11.1		rottlerin	polyphenol	
32	16.69	269.1, 287.1 , 437.2	SWUF16- 7.2		unknown 19		
33	16.76- 16.84	271.2, 317.2	SWUF16- 4.1, SWUF16- 11.4		unknown 20		
34	17.19- 17.21	275.2, 402.2, 581.2 , 603.3	SWUF16- 11.1, SWUF17- 24.2		naringin	flavonoids	
35	17.78	231.1, 475.2 , 927.5	SWUF16- 11.4		unknown 21		
36	17.91- 17.98	151.1, 284.3, 389.1	SWUF16- 11.1, SWUF17- 24.2		unknown 22		
37	18.28	369.2 , 747.2	SWUF18- 2.3		unknown 23		
38	18.3	231.1, 284.3, 475.2 , 927.5	SWUF16- 11.4		unknown 24		
39	18.41- 18.48	243.1, 370.2, 585.3 , 607.3	SWUF16- 11.1, SWUF17- 24.2		unknown 25		
40	18.48	284.3, 385.2, 425.2	SWUF17- 20.2		unknown 26		

Peak No.	t_R (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
41	18.78	367.2, 743.4	SWUF18-2.3		unknown 27		
42	19.08	369.2, 693.5, 747.4, 1039.7	SWUF18-2.3		unknown 28		
43	19.15-19.18	275.1, 565.3, 649.3, 671.3	SWUF16-11.1, SWUF17-24.2		unknown 29		
44	19.36	299.1, 371.2	SWUF16-11.4		unknown 30		
45	19.83	389.1, 489.1	SWUF18-2.3		unknown 31		
46	19.83-19.90	181.1, 296.2	SWUF16-11.1, SWUF17-24.2		unknown 32		
47	20.83	402.3, 549.3, 571.3	SWUF17-24.2, SWUF16-11.1, SWUF17-49.2		animicin A	antimycin	
48	21.43	268.2, 591.3, 613.3	SWUF17-20.2		unknown 33		
49	21.5	304.2, 309.2, 595.4	SWUF17-24.2		tiliroside	flavones	
50	21.78	797.4, 819.4	SWUF16-11.4		4'-O-(2'-Z-Feruloyl GluA(1-2)GluA) apigenin (NMR)	flavones	
51	21.95	425.2, 443.2, 625.3, 1205.7	SWUF16-11.1		unknown 34		
52	22.01	603.3, 625.3, 694.4	SWUF17-49.2		unknown 35		

Peak No.	t_R (min)	MS data (m/z)	Isolates	m/z of predicted compounds	Predicted compounds	Group of compounds	References
53	22.35	233.0, 353.2	SWUF18- 2.3		unknown 36		
54	22.48- 22.53	402.2, 470.3, 617.3, 639.3, 1255.7	SWUF16- 11.1, SWUF17- 49.2, SWUF16- 4.1		unknown 37		
55	23.11- 23.16	825.5, 847.5	SWUF17- 49.2, SWUF16- 4.1, SWUF16- 11.4		unknown 38		
56	23.55	231.1, 489.2	SWUF16- 11.4		unknown 39		
57	24.28- 24.33	853.5, 875.5	SWUF17- 49.2, SWUF16- 4.1, SWUF16- 11.4		unknown 40		
58	25.28- 25.30	881.5, 903.5	SWUF17- 49.2, SWUF16- 4.1		unknown 41		
59	25.98	355.2, 909.6, 931.6	SWUF17- 49.2, SWUF16- 4.1	[M+Na] ⁺ m/ z 931.6	bassianolide	cyclodepsipep tide	[3]
60	28.20- 28.32	181.0, 195.0, 413.2, 445.3, 803.5	all		unknown 42		
61	29.13	338.3, 360.3	SWUF17- 44.1		unknown 43		

References

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