Electronic Supplementary Material (ESI) for Natural Product Reports.

Supporting Information

Medicinal Plant Resin Natural Products: Structure Diversity and their Biological Activities

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Contents

Table S1 Physicochemical properties, and biological activities of compounds derived from *Commiphora* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV λ_{max} (logε)	Biological Activity	Activity status	Ref.
	Sesquiterpenoids				-	-	
1	Isofuranogermacrene	$C_{15}H_{20}O$	-	Isooctane: 221 nm	-	-	21
2	Lindestrene	$C_{15}H_{18}O$	-	Isooctane: 220 nm	-	-	21
3	Furanoeudesma-l,3-diene	$C_{15}H_{18}O$	-	Isooctane: 218 nm	-	-	21
4	Furanodiene	$C_{15}H_{20}O$	-	Isooctane: 218 nm	-	-	21
5	1,2-Epoxyfurano-10(15)-gemacren-6-one	$C_{15}H_{20}O_3$	-	-	-	-	22
6	Furanogermacrene I	$C_{16}H_{22}O_3$	-	-	-	-	22
7	Furanogermacrene II	$C_{18}H_{24}O_5$	-	-	-	-	22
8	Furanogermacrene III	$C_{16}H_{20}O_3$	-	-	-	-	22
9	1,2-Epoxy-furanogermacr-10(15)-en-6-one	$C_{15}H_{18}O_3$	$[\alpha]_D$ –160.0 (*c* 2.5, $CHCl_3$)	-	Cytotoxicity (MCF-7 cells)	Weak activity	23,24,25
10	*rel*-2*R*-Methyl-5*S*-acetoxy-4*R*-furanogermacr-1(10)*Z*-en-6-one	$C_{18}H_{24}O_5$	$[\alpha]_D$ +113.6 (*c* 2.3, $CHCl_3$)	-	Cytotoxicity (MCF-7 cells)	Inactive	23
11	*rel*-3*R*-Methoxy-4*S*-furanogermacra-1*E*,10(15)-dien-6-one	$C_{16}H_{20}O_3$	$[\alpha]_D$ +74.4 (*c* 0.8, $CHCl_3$)	-	Cytotoxicity (MCF-7 cells)	Inactive	23
12	2-Methoxy-furanogermacra-1(10)*E*-en-6-one	$C_{16}H_{22}O_3$	$[\alpha]_D$ –174.0 (*c* 1.0, $CHCl_3$)	-	Cytotoxicity (MCF-7 cells)	Inactive	23,25
13	Furanogermacr-1(10)*Z*,4*Z*-dien-6-one	$C_{15}H_{18}O_2$	$[\alpha]_D$ –9.8 (*c* 0.5, $CHCl_3$)	-	Cytotoxicity (MCF-7 cells)	Inactive	23
14	Curzerenone [6,7-dihydro-5*β*-isopropenyl-3,6*β*-dime-thyl-6-vinylbenzofuran-4(5H)-one]	$C_{15}H_{18}O_2$	-	-	Cytotoxicity (MCF-7 cells)	Inactive	23
15	(1*E*)-8,12-Epoxygermacra-1,7,10,11-tetraen-6-one	$C_{15}H_{18}O_2$	$[\alpha]^{22}_D$ +6.0 (*c* 0.05, $CHCl_3$)	-	-	-	26
16	Furanodienone	$C_{15}H_{18}O_2$	$[\alpha]^{22}_D$	-	Antimicrobial (On	Weak activity	26,27

			±0 (*c* 0.25, $CHCl_3$)		*Fusarium culmorum*)		
17	(1*E*)-3-Methoxy-8,12-epoxygermacra-1,7,10,11-tetraen-6-one	$C_{16}H_{20}O_3$	$[\alpha]^{22}_D$ +8.0 (*c* 0.05, $CHCl_3$)	-	-	-	26,24
18	(1(10)*E*,2*R**,4*R**)-2-Methoxy-8,12-epoxygermacra-1(10),7,11-trien-6-one	$C_{16}H_{22}O_3$	-	-	-	-	26
19	Dihydropyrocurzerenone	$C_{15}H_{18}O$	$[\alpha]^{22}_D$ –34.0 (*c* 0.05, $CHCl_3$)	-	-	-	26
20	T-Cadinol	$C_{15}H_{26}O$	$[\alpha]^{22}_D$ –2 (*c* 1.0, $CHCl_3$)	-	-	-	28,29
21	2-Methoxyfuranodienone	$C_{16}H_{20}O_3$	-	-	-	-	30
22	2-Acetoxyfuranodienone	$C_{17}H_{20}O_4$	-	-	-	-	30
23	6-Hydroxy-2-methyl-5-(5′-hydroxy-19(*R*),5′-di-methylhex-3′-enyl)-phenol	$C_{15}H_{22}O_3$	$[\alpha]^{25}_D$ -35 (*c* 1.0, CH_2Cl_2)	MeOH: 274 (2.90) nm	-	-	31
24	2-Methyl-5-(4′(*S*)-hydroxy-1′(*R*),5′-dimethylhex-5′-enyl)-phenol	$C_{15}H_{22}O_2$	$[\alpha]^{25}_D$ -13.5 (*c* 1.0, CH_2Cl_2)	(MeOH) 275 (2.85) nm	Antimicrobial (*Staphylococcus aureus* strains: SA1199B, ATCC25923, XU212, RN4220, and EMRSA15)	Weak active	31
25	2*α*-Methoxy-6-oxogermacra-1(10),7(11)-dien-8,12-olide	$C_{16}H_{22}O_4$	$[\alpha]^{20}_D$ +196.2 (*c* 0.053, $CHCl_3$); $[\alpha]^{25}_D$ +107.0 (*c* 1.12, MeOH)	MeOH: 229.0 (4.08) nm			24
26	5*β*-10*α*-Hydroxy-2*α*-methoxy-6-oxoguaia-7(11),8-dien-8,12-olide	$C_{16}H_{20}O_5$	$[\alpha]^{20}_D$ –46.1 (*c* 0.065, $CHCl_3$)	MeOH: 220.0 (3.82), 304 (3.89) nm			24
27	Furanocadina-1(10),6,8-triene-4-ol	$C_{15}H_{18}O_2$	$[\alpha]^{20}_D$ –27.2 (*c* 0.058, $CHCl_3$)	MeOH: 215.0 (4.21), 246.0 (3.80), 253 (3.79) nm			24
28	6*α*,7*α*-Epoxy-1*β*-guai-10(14)-en-4*α*-ol	$C_{15}H_{24}O_2$	-	-	-	-	24
29	(1*R*,4*S*,5*R*)-Guaia-6,10(14)-diene	$C_{15}H_{24}$	-	-	-	-	24

30	*β*-Elemene	$C_{15}H_{24}$	-	-	Antimicrobial (*Staphylococcus aureus* strains: SA1199B, ATCC25923, XU212, RN4220, and EMRSA15)	Weak active	29
					Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	
31	Myrrhanolide A	$C_{15}H_{16}O_3$	$[\alpha]^{20}_D$ −16.4 (*c* 0.04, MeOH)	-	Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	32
32	Myrrhanolide B	$C_{15}H_{18}O_4$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	32
33	Myrrhanolide C	$C_{15}H_{18}O_4$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	32
34	Hydroxylindestrenolide	$C_{15}H_{18}O_3$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	32
35	8-Hydroxyisogermafurenolide	$C_{15}H_{20}O_3$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Weak active Weak active	32
36	Myrrhone	$C_{15}H_{16}O_2$	-	-			32
37	2-Methoxy-5-acetoxy-furanogermacr-1(10)-en-6-one	$C_{19}H_{24}O_6$	-	-			32
38	4*α*-Methoxy-6-guaien-10*α*-ol	$C_{16}H_{28}O_2$	-	-			32
39	Myrrhterpenoid A	$C_{15}H_{18}O_3$	$[\alpha]^{25}_D$ +3.4 (*c* 0.19, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	 Moderate active	33
40	Myrrhterpenoid B	$C_{15}H_{18}O_3$	$[\alpha]^{25}_D$ +1.5 (*c* 0.22, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	 Moderate active	33
41	Myrrhterpenoid C	$C_{16}H_{22}O_4$	$[\alpha]^{25}_D$ +301.8 (*c* 0.65, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	 Moderate active	33,34
42	Myrrhterpenoid D	$C_{18}H_{24}O_6$	$[\alpha]^{25}_D$ +51.7 (*c* 0.31, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	 Moderate active	33

43	Myrrhterpenoid E	$C_{16}H_{20}O_4$	$[\alpha]^{25}_D$ +160.0 (*c* 0.08, CH_2Cl_2)	- -	Cytotoxicity (PC-3 cells) Neuroprotective SH-SY5Y cells	Active Moderate active	33,34
44	Myrrhterpenoid F	$C_{17}H_{20}O_4$	$[\alpha]^{25}_D$ +24.7 (*c* 0.29, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Moderate active	33
45	Myrrhterpenoid G	$C_{16}H_{18}O_3$	$[\alpha]^{25}_D$ +14.1 (*c* 0.43, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Moderate active	33
46	Myrrhterpenoid H	$C_{16}H_{20}O_4$	$[\alpha]^{25}_D$ +2.0 (*c* 0.83, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Moderate active	33
47	Myrrhterpenoid I	$C_{16}H_{22}O_4$	$[\alpha]^{25}_D$ +7.8 (*c* 1.28, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Moderate active	33
48	Myrrhterpenoid J	$C_{16}H_{20}O_3$	$[\alpha]^{25}_D$ +4.2 (*c* 0.22, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Moderate active	33
49	Chlorantene C	$C_{15}H_{18}O_4$	-	-	Neuroprotective SH-SY5Y cells	Moderate active	33
50	Chlomultin B	$C_{15}H_{18}O_3$	-	-	Neuroprotective SH-SY5Y cells	Moderate active	33,34
51	Dihydrocurcolone	$C_{15}H_{20}O_3$	-	-	Neuroprotective SH-SY5Y cells	Moderate active	33,34
52	Furanogermacra-1,10(15)-dien-6-one (Furanogermacradienone)	$C_{15}H_{18}O_2$	-	-	-	-	27,25
53	3-Methoxy-furanogermacra-1E,10(15)-dien-6-one	$C_{16}H_{20}O_3$	-	-	Antioxidant Antiinflammatory	EC_{50}: 2.56 mg/mL 26% edema	27,25
54	2-Methoxy-furanogermacren-6-one	$C_{16}H_{22}O_3$	-	-	Antioxidant Antiinflammatory	EC_{50}: 1.08 mg/mL 32% edema	27
55	Myrrhterpenoid K	$C_{15}H_{18}O_3$	$[\alpha]^{20}_D$ −5.3 (*c* 0.2, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Significant active	35
56	Myrrhterpenoid L	$C_{15}H_{20}O_4$	$[\alpha]^{20}_D$ −9.1 (*c* 0.1, CH_2Cl_2)	-	-	-	35
57	Myrrhterpenoid M	$C_{16}H_{22}O_4$	$[\alpha]^{20}_D$ +15.0 (*c* 0.1, CH_2Cl_2)	-	-	-	35
58	Myrrhterpenoid N	$C_{15}H_{18}O_3$	$[\alpha]^{20}_D$ +30.7 (*c* 0.3, CH_2Cl_2)	-	Neuroprotective SH-SY5Y cells	Significant active	35,34
59	1*β*,8*β*-Epoxy-2*α*-methoxy-6-oxogermacra-9(10),7(11)-dien-8,12-olide	$C_{16}H_{20}O_5$	$[\alpha]^{20}_D$ −36.0 (*c* 0.2, acetone)	Acetone: 230 (3.02) nm	Cytotoxicity HeLa cells	Moderate active	36

					HepG2 cells	Moderate active	
60	1*β*,8*β*-epoxy-2*α*-methoxy-12*α*-hydroxy-6-oxogermacra-9(10),7(11)-dien-8,12-olide	$C_{16}H_{22}O_5$	Mixture: $[\alpha]^{20}_D$ −76.0 (*c* 0.05, acetone)	-			36
61	1*β*,8*β*-Epoxy-2*α*-methoxy-12β-hydroxy-6-oxogermacra-9(10),7(11)-dien-8,12-olide	$C_{16}H_{22}O_5$		-			36
62	2*α*-Methoxy-8*α*-hydroxy-6-oxogermacra-1(10), 7(11)-dien-8, 12-olide	$C_{16}H_{22}O_5$	$[\alpha]^{20}_D$ −15.0 (*c* 0.1, acetone)	Acetone: 231 (3.26) nm	Cytotoxicity HeLa cells HepG2 cells	 Moderate active Moderate active	36
63	Guaia-4*β*,7*β*,10*α*-trihydroxy-5-ene	$C_{15}H_{26}O_3$	$[\alpha]^{20}_D$ −120.0 (c 0.03, acetone)	-	Cytotoxicity HeLa cells HepG2 cells	Active IC_{50}: 15.4 μM IC_{50}: 8.7 μM	36
64	Commipholinone	$C_{14}H_{16}O_3$	$[\alpha]^{20}_D$ −130.0 (*c* 0.05, acetone)	-	Cytotoxicity HeLa cells HepG2 cells	 Moderate active Moderate active	36
65	1*β*,4*β*-epoxy-eudesmane-11-ol	$C_{15}H_{26}O_2$	$[\alpha]^{20}_D$ −40.0 (*c* 0.05, acetone)	-	Cytotoxicity HeLa cells HepG2 cells	 Moderate active Moderate active	36
66	11-Hydroxy-4*α*-methoxyselinane	$C_{16}H_{30}O_2$	-	-	Cytotoxicity HeLa cells HepG2 cells	 Moderate active Moderate active	36
67	*ent*-4(15)-Eudesmene-1*β*,6*α*-diol	$C_{15}H_{26}O_2$	-	-	-	-	36
68	Agarsenone	$C_{15}H_{18}O_2$	$[\alpha]^{22}_D$ −78.3 (*c* 0.64, TBME); $[\alpha]^{26}_D$ −30.6 (*c* 1.10, benzene)	-	-	-	37
69	Myrrhanolide D	$C_{18}H_{22}O_7$	$[\alpha]^{20}_D$ +46.9 (*c* 0.15, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	38
70	Myrrhasin A	$C_{17}H_{22}O_5$	$[\alpha]^{20}_D$ −38.3 (*c* 0.26, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	38
71	7*α*,11-Dihydroxycadin-10(14)-ene	$C_{15}H_{26}O_2$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	38
72	4*α*,10*α*-Dihydroxy-1*α*,5*α*H-guaia-6-ene	$C_{15}H_{26}O_2$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	38
73	9-Methoxymyrrhone	$C_{16}H_{18}O_3$	$[\alpha]^{20}_D$ −15.2 (*c*	-	Antioxidant	IC_{50}: 240.2 μM	39,40

			2.52, CH_2Cl_2)				
74	*rel*-(1*S*,2*S*,3*R*,4*S*)-1,2-Epoxy-3-methoxy-furanogermacr-10(15)-en-6-one	$C_{16}H_{20}O_4$	$[\alpha]^{20}_D$ +11.7 (*c* 0.29, CH_2Cl_2)	-	-	-	39
75	*rel*-(1*E*,3*R*,4*S*)-Methoxy-4-furanogermacra-1,10(15)-dien-6-one	$C_{16}H_{20}O_3$	-	-	-	-	39
76	2*α*-Methoxy-8*α*-hydroxy-6-oxogermacra-1(10),7(11)-dien-12,8-olide	$C_{16}H_{22}O_5$	-	-	-	-	39
77	Alismol	$C_{15}H_{24}O$	-	-	-	-	39
78	Commiphorane C	$C_{17}H_{20}O_5$	$[\alpha]^{25}_D$ +48.7 (*c* 0.05, MeOH)	MeOH: 273 (3.37), 204 (4.55) nm	Anti-renal fibrosis (rat renal proximal tubular cells)	Active	41
79	Commiphorane D	$C_{17}H_{20}O_5$	$[\alpha]^{22}_D$ +29.1 (*c* 0.1, MeOH)	MeOH: 373 (3.06), 205 (4.31) nm	Anti-renal fibrosis (rat renal proximal tubular cells)	Inactive	41
80	Commiphorane E1	$C_{15}H_{20}O_4$	$[\alpha]^{24}_D$ −23.3 (*c* 0.05, MeOH)	MeOH: 269 (3.48), 205 (4.05) nm	Anti-renal fibrosis (rat kidney tubular epithelial cells)	Inactive	42
81	Commiphorane E2	$C_{15}H_{16}O_4$	$[\alpha]^{24}_D$ −63.0 (*c* 0.40, MeOH)	MeOH: 291 (3.70), 249 (3.80), 220 (4.06) nm	Anti-renal fibrosis (rat kidney tubular epithelial cells)	Inactive	42
82	Commiphorane E3	$C_{15}H_{14}O_3$	$[\alpha]^{26}_D$ −138.8 (*c* 0.28, MeOH)	MeOH: 307 (3.29), 250 (3.84), 204 (3.86) nm	Anti-renal fibrosis (rat kidney tubular epithelial cells)	Inactive	42
83	Curcolonol	$C_{15}H_{20}O_4$	-	-	Anti-renal fibrosis (rat kidney tubular epithelial cells)	Inactive	42
84	8-Hydroxy-12-norcardina-4,6,8,10-tetraen-11-one	$C_{14}H_{16}O_2$	-	-	-	-	43
85	Commipholactam A	$C_{15}H_{15}NO_2$	$[\alpha]^{20}_D$ +5.0 (*c* 0.07, MeOH)	MeOH: 249 (3.72), 217 (3.59) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 IC_{50}: 21.73 μM IC_{50}: 128.5 μM Inactive	44
86	Commiphorane H	$C_{17}H_{18}O_4$	$[\alpha]^{20}_D$ +89.9 (*c* 0.07, MeOH)	MeOH: 316 (1.98), 294 (1.83), 240 (3.24), 206 (2.68) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	44
87	Commiphorane I	$C_{15}H_{26}O_2$	$[\alpha]^{20}_D$ −11.0 (*c* 0.06, MeOH)	MeOH: 200 (2.86) nm	Cytotoxicity HepG2 cells	 Inactive	44

					A549 cells BGC-823 cells	Inactive Inactive	
88	Commiphorane J	$C_{15}H_{24}O_2$	$[\alpha]^{20}_D$ –12.0 (*c* 0.1, MeOH)	MeOH: 200 (2.94) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	44
89	Myrrhalactone B	$C_{15}H_{18}O_4$	$[\alpha]^{25}_D$ +9.4 (*c* 1.03, MeOH)	MeOH: 280 (3.98), 232 (4.07), 213 (4.11) nm	Lipid accumulation inhibition (PPARα and CPT1 activation)	Active	45
90	Myrrhalactone C	$C_{12}H_{14}O_3$	$[\alpha]^{25}_D$ –35.5 (*c* 0.75, MeOH)	MeOH: 313 (3.57), 265 (3.80), 260 (3.44), 214 (3.94), 196 (3.81) nm	Lipid accumulation inhibition (PPARα and CPT1 activation)	Active	45
91	Commiphoranoid A	$C_{15}H_{18}O_3$	$[\alpha]^{20}_D$ –8.6 (*c* 0.08, MeOH)	MeOH: 235 (3.79), 200 (3.91) nm	-	-	46
92	Commiphoranoid B	$C_{15}H_{16}O_2$	$[\alpha]^{25}_D$ –63.0 (*c* 0.05, MeOH)	MeOH: 355 (3.75), 340 (3.80), 265 (4.06), 232 (4.03), 200 (4.05) nm	-	-	47
93	2-Methoxyfuranodiene	$C_{16}H_{22}O_2$	-	-	-	-	47
94	2-Acetoxyfuranodiene	$C_{17}H_{22}O_3$	-	-	-	-	47
95	Myrrhterpene A	$C_{15}H_{18}O_5$	$[\alpha]^{20}_D$ –18.2 (*c* 0.1, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 1.35 μM	48
96	Myrrhterpene B	$C_{15}H_{16}O_3$	$[\alpha]^{20}_D$ –9.3 (*c* 0.1, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 0.80 μM	48
97	Commiphorane L	$C_{17}H_{22}O_4$	$[\alpha]^{20}_D$ +64.6 (*c* 0.03, MeOH)	MeOH: 310 (2.97), 271 (3.19) nm	Antiinflammatory (RAW 264.7 cells)	Dose dependent activity	49
98	Commiphorane M	$C_{18}H_{28}O_5$	$[\alpha]^{20}_D$ +36.4 (*c* 0.06, MeOH)	MeOH: 230 (3.83), 213 (3.68) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	49
99	Commiphorane N	$C_{18}H_{26}O_5$	$[\alpha]^{20}_D$ +133.3 (*c* 0.04, MeOH)	MeOH: 253 (3.40), 224 (4.19) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	49
100	Commiphorane O	$C_{16}H_{22}O_4$	$[\alpha]^{20}_D$ +60.0 (*c*	MeOH: 299	-	-	49

			0.04, MeOH)	(2.99), 209 (3.70) nm			
101	Commipharane	$C_{15}H_{20}O_3$	-	-	Antioxidant	Moderate active	40
102	Myrrhterpeniod	$C_{15}H_{18}O_3$	-	-	Antioxidant	Moderate active	40
103	9-Methoxymyrrhone	$C_{16}H_{18}O_3$	-	-	Antioxidant	Moderate active	40
104	9,10-*seco*-Isolindestrenolide	$C_{15}H_{18}O_2$	$[\alpha]^{22}_D$ +238.0 (*c* 1.1, MeOH)	MeOH: 203 (3.97) nm	-	-	50
105	9-Oxo-9,10-*seco*-isolindestrene	$C_{15}H_{16}O_2$	-	286 (3.43) nm	-	-	50
106	*rel*-8*S*-Acetyloxy-7*R*-hydroxy-5*R*,10*R*-*β*-elemene	$C_{17}H_{26}O_3$	$[\alpha]^{22}_D$ +36.0 (*c* 1.28, MeOH)	202 (3.80), 276 (3.57) nm	-	-	50
107	Commiterpene E	$C_{16}H_{20}O_3$	$[\alpha]^{25}_D$ +18.0 (*c* 0.90, MeOH)	MeOH: 203 (4.26) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
108	2*β*-Methoxyglechomanolide	$C_{16}H_{22}O_3$	$[\alpha]^{25}_D$ +53.0 (*c* 0.9, MeOH)	MeOH: 218 (3.98) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
109	8-*epi*-2*β*-Methoxyglechomanolide	$C_{16}H_{22}O_3$	$[\alpha]^{25}_D$ −69.0 (*c* 2.23, MeOH)	MeOH: 215 (4.17) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
110	Dehydroisolindestrenolide	$C_{15}H_{16}O_2$	$[\alpha]^{24}_D$ +34.0 (*c* 1.94, MeOH)	MeOH: 202 (3.94), 275 (3.79) nm			50
111	Glechomanolide	$C_{15}H_{20}O_2$	$[\alpha]^{25}_D$ +6.0 (*c* 1.84, MeOH)	MeOH: 214 (4.10) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
112	2*β*-Acetyloxyglechomanolide	$C_{17}H_{22}O_4$	$[\alpha]^{25}_D$ +26.0 (*c* 2.31, MeOH)	MeOH: 216 (4.15), 285 (2.91) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
113	8-*epi*-2*β*-Acetyloxyglechomanolide	$C_{17}H_{22}O_4$	$[\alpha]^{25}_D$ +26.0 (*c* 2.27, MeOH)	214 (4.20) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
114	1(10)*Z*,4*E*-isofuranodienone	$C_{15}H_{18}O_2$	-	-			50
115	3*S*-Methoxy-4*R*-furanogermacra-1*E*,10(14)-dien-6-one	$C_{16}H_{20}O_3$	$[\alpha]^{23}_D$ +43.0 (*c* 2.20, MeOH)	MeOH: 216 (3.97) nm			50
116	2-Methoxy-5-acetoxyfuranogermacr-1(10)-en-6-one	$C_{18}H_{24}O_5$	$[\alpha]^{25}_D$ −21.0 (*c* 2.22, MeOH)	MeOH: 207 (4.19), 284 (3.27) nm			50
117	(1*S*,4*S*,5*S*,10*S*)-Germacron-1(10),4-diepoxide	$C_{15}H_{22}O_3$	$[\alpha]^{25}_D$ +3.0 (*c* 2.22, MeOH)	MeOH: 248 (3.50) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
118	Dehydrolindestrenolide	$C_{15}H_{16}O_2$	$[\alpha]^{23}_D$ +60.0 (*c* 1.86, MeOH)	MeOH: 202 (3.96), 204 (3.91), 276 (3.74) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
119	Tubipolide B	$C_{15}H_{18}O_2$	-	-			50

120	Atractylenoide II	$C_{15}H_{20}O_2$	$[\alpha]^{25}_D$ +16.0 (*c* 1.31, MeOH)	MeOH: 202 (3.52), 205 (3.51), 221 (3.94) nm	Antiinflammatory (HMEC-1 cells)	Inactive	50
121	8-*epi*-Isogermafurenolide	$C_{15}H_{20}O_2$	-	-			50
122	Myrrhterpenoid O	$C_{16}H_{20}O_3$	$[\alpha]^{23}_D$ +152.0 (*c* 0.66, MeOH)	-			50
123	Commiphorene A	$C_{18}H_{20}O_4$	$[\alpha]^{25}_D$ +36.1 (*c* 0.36, MeOH)	MeOH: 276 (5.86) nm	Cytotoxicity HepG2 cells	Active IC_{50}: 48.67 µM	51
124	Commiphorene B	$C_{15}H_{16}O_3$	$[\alpha]^{25}_D$ –21.6 (*c* 0.07, MeOH)	MeOH: 290 (3.23), 253 (3.48), 206 (4.18) nm	Cytotoxicity HepG2 cells	Inactive	51
125	Commiphorane M1	$C_{18}H_{24}O_6$	$[\alpha]^{24}_D$ +263.7 (*c* 0.56, MeOH)	MeOH: 241 (3.92), 202 (3.84) nm	Cytotoxicity PC-3 cells	Inactive	34
126	Commiphorane M2	$C_{17}H_{22}O_5$	$[\alpha]^{25}_D$ +156.7 (*c* 0.60, MeOH)	MeOH: 233 (3.94), 202 (3.90) nm	Cytotoxicity PC-3 cells	Inactive	34
127	Commiphorane M3	$C_{18}H_{24}O_6$	$[\alpha]^{25}_D$ –9.4 (*c* 0.14, MeOH)	MeOH: 220 (3.94), 263 (3.07) nm	Cytotoxicity PC-3 cells	Inactive	34
128	Commiphorane M4	$C_{15}H_{18}O_4$	$[\alpha]^{25}_D$ –17.7 (*c* 0.3, MeOH)	MeOH: 206 (4.11), 221 (3.90), 271 (3.53) nm	Cytotoxicity PC-3 cells	Inactive	34
129	(+)-1-Hydroxy-isofuranodienone	$C_{15}H_{18}O_3$	$[\alpha]^{26}_D$ –7.8 (*c* 0.1, MeOH)	-	Cytotoxicity PC-3 cells	Inactive	34
130	(–)-1-Hydroxy-isofuranodienone	$C_{15}H_{18}O_3$	$[\alpha]^{26}_D$ –30.7 (*c* 0.1, MeOH)	-	Cytotoxicity PC-3 cells	Inactive	34
131	Zederone epoxide	$C_{15}H_{18}O_4$	-	-	Cytotoxicity PC-3 cells	Inactive	34
132	[4a*R*-(4a*α*,5*β*,8*β*,8a*β*)]-5,6,7,8,8a,9-Hexahydro-8-hydroxy-3,5,8a-trimethyl-naphtho[2,3-b]furan-4(4aH)-one	$C_{15}H_{20}O_3$	-	-	Cytotoxicity PC-3 cells	Inactive	34
133	Curcodione	$C_{15}H_{18}O_4$	-	-	Cytotoxicity PC-3 cells	Inactive	34
134	4*R*-Hydroxy-8,12-epoxyeudesma-7,11-diene-1,6-dione	$C_{15}H_{18}O_4$	-	-	Cytotoxicity PC-3 cells	Inactive	34
135	1*α*-Hydroxy-8,12-epoxyeudesma-4,7,11-triene-3,6-dione	$C_{15}H_{16}O_4$	-	-	Cytotoxicity PC-3 cells	Inactive	34

136	(+)-Curcolone	$C_{15}H_{18}O_3$	$[\alpha]^{26}_D$ +69.6 (*c* 0.24, MeOH)	-	Cytotoxicity PC-3 cells	Active >40% of apoptosis	34
137	(–)-Curcolone	$C_{15}H_{18}O_3$	$[\alpha]^{26}_D$ –76.4 (*c* 0.24, MeOH)	-	Cytotoxicity PC-3 cells	Inactive	34
138	1*β*-Hydroxy-*β*-cyperone	$C_{15}H_{22}O_2$	-	-	Cytotoxicity PC-3 cells	Inactive	34
139	Aphanamol I	$C_{15}H_{24}O_2$	-	-	Cytotoxicity PC-3 cells	Inactive	34
140	Litseachromolaevane B	$C_{15}H_{22}O_2$	-	-	Cytotoxicity PC-3 cells	Inactive	34
Diterpenoids							
141	Cembrene-A	$C_{20}H_{32}$	-	210 nm	-	-	52,53,54
142	Mukulol	$C_{20}H_{34}O$	$[\alpha]^{25}_D$ +53.0 ($CHCl_3$)	-	-	-	52,53
143	(1*E*,4*E*,8*E*)-4,8,14-Trimethyl-11-(1-methylethyl)-14-methoxycyclotetradeca-1,4,8-triene	$C_{21}H_{36}O$	-	MeOH: 210 (3.7), 235 (2.3) nm	COX enzyme inhibition	Moderate (at 100 ppm)	55
144	(2*E*,12*E*)-2,7,13-Trimethyl-9-(1-methylethyl)-15-oxabicyclo [12.1.0]pentadeca-2,12-dien-7-ol	$C_{20}H_{34}O_2$	-	MeOH: 210 (3.5), 235 (2.9) nm	COX enzyme inhibition	(at 100 ppm) 57% of reduction	55
145	(2*E*,6*E*,10*E*)-3,7,11-Trimethyl-14-(1-methylethenyl)cyclotetradeca-2,6,10-trien-1-ol	$C_{20}H_{32}O$	-	-	COX enzyme inhibition	Moderate (at 100 ppm)	55
146	(1*E*,3*E*,6*E*,10*E*)-3,7,11-Trimethyl-14-(1-methylethyl)cyclotetradeca-1,3,6,10-tetraene	$C_{20}H_{32}$	-	-	COX enzyme inhibition COX-1 COX-2	(at 100 ppm) 79% of reduction 83% of reduction	55
147	Cembrene (thunbergene)	$C_{20}H_{32}$	-	-	-	-	54,56
148	Cembrene-1-ol (cembreneol)	$C_{20}H_{34}O$	-	-	-	-	54
149	Isocembrol (thunbergol)	$C_{21}H_{36}O$	-	-	Antiinflammatory (RAW 264.7 cells)	Inactive	57
150	4-Epiisocembrol	$C_{21}H_{36}O$	-	-	Antiinflammatory (RAW 264.7 cells)	Inactive	57
151	(4*Z*,6*E*)-4,7,12,15,15-Pentamethylbicyclo[9.3.1]pentadeca-4,6-dien-12-ol (verticillol)	$C_{20}H_{34}O$	-	MeOH: 210 (4.0), 235 (3.1) nm	COX enzyme inhibition	Moderate (at 100 ppm)	55,54
152	Pimaric acid	$C_{20}H_{30}O_2$	-	-	Antirenal fibrosis	Inactive at 20 µM	42

153	Pimarol	$C_{20}H_{32}O$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
154	7-Oxo-13*α*-hydroxyabiet-8(14)-en-18-oic acid	$C_{20}H_{30}O_4$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
155	7-Oxo-13*β*-hydroxyabiet-8(14)-en-18-oic acid	$C_{20}H_{30}O_4$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
156	7-Oxo-13*α*-methoxyabiet-8(14)-en-18-oic acid	$C_{21}H_{32}O_4$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
157	7-Oxo-13*β*-methoxyabiet-8(14)-en-18-oic acid	$C_{21}H_{32}O_4$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
158	Dehydroabietic acid	$C_{20}H_{28}O_2$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
159	7-Oxocallitrisic acid	$C_{20}H_{26}O_3$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
160	Abieta-8,11,13,15-tetraen-18-oic acid	$C_{20}H_{26}O_2$	-	-	Antirenal fibrosis	Inactive at 20 μM	42
161	Nepetaefolin F	$C_{20}H_{28}O_3$	-	-	Antimicrobial (clinical MDR isolates: C-200-7, C-200 29, and C-200-39; sensitive strains: H37Ra, H37Rv)	Significant inhibition	43
					Cytotoxicity THP-1 A549	 Inactive Inactive	
162	Oxocallitrisic acid	$C_{20}H_{26}O_4$	-	-	Antimicrobial (clinical MDR isolates: C-200-7, C-200 29, and C-200-39; sensitive strains: H37Ra, H37Rv)	Significant inhibition	43
					Cytotoxicity THP-1 cells A549 cells	 Inactive Inactive	
Nor-diterpenoids							
163	19-Norabieta-5,8,11,13-tetraen-7-one	$C_{19}H_{24}O$	-	-	-	-	42
164	8(14)-Podocarpen-13-on-18-oic acid	$C_{17}H_{24}O_3$	-	-	-	-	42
165	Commiphorane F	$C_{17}H_{22}O_3$	$[\alpha]^{24}_D$ +6.5 (*c* 0.55, MeOH)	MeOH: 288 (4.30), 209 (3.54), 192 (3.63) nm	-	-	42
166	Commiphorane K1	$C_{19}H_{22}O_2$	$[\alpha]^{20}_D$ –222.0 (*c* 0.06, MeOH)	MeOH: 357 (2.63), 250 (2.88), 200 (3.07) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells HUVEC cells	 Inactive Inactive Inactive Inactive	44

167	Commiphorane K2	$C_{19}H_{26}O_3$	$[\alpha]^{20}_D$ −121.0 (*c* 0.08, MeOH)	MeOH: 289 (3.18), 201 (2.89) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells HUVEC cells	IC_{50} > 160 (all cells) Inactive Inactive Inactive Inactive	44
168	Commiphorane A	$C_{18}H_{20}O_5$	$[\alpha]^{22}_D$ −67.5 (*c* 0.23, MeOH)	MeOH: 277 (4.12), 230 (4.18) 213 (4.13) nm	Antirenal fibrosis (collagen I, α-SMA)	Active	41
169	Commiphorane B	$C_{18}H_{20}O_5$	$[\alpha]^{22}_D$ +69.8 (*c* 0.15, MeOH)	MeOH: 276 (4.25), 230 (4.32), 213 (4.25), 196 (4.10) nm	Antirenal fibrosis (collagen I, α-SMA)	Active	41
170	Commiphoranoid C	$C_{19}H_{26}O_4$	$[\alpha]^{22}_D$ −2.4 (*c* 0.03, MeOH)	MeOH: 230 (3.66), 196 (3.82) nm	Lipid accumulation inhibition	Increase CPT1α expression	46
171	Commiphorane K	$C_{20}H_{30}O_4$	$[\alpha]^{22}_D$ +64.6 (*c* 0.08, MeOH)	MeOH: 293 (4.54), 247 (4.37), 216 (4.09) nm	-	-	49
Triterpenoids							
	Ursane-type triterpenoids						
172	Comic acid A	$C_{31}H_{50}O_4$	-	-	-	-	58,59
173	Comic acid B	$C_{30}H_{48}O_3$	-	-	-	-	58,59
174	Comic acid D	$C_{30}H_{48}O_4$	-	-	-	-	58,60
175	Comic acid E	$C_{30}H_{48}O_5$	-	-	-	-	58,61
176	Commiphorane G3	$C_{29}H_{46}O_2$	$[\alpha]^{24}_D$ +75.7 (*c* 0.18, MeOH)	MeOH: 363 (1.43), 203 (3.68) nm	Antirenal fibrosis	Inactive	42
177	28-*nor*-Urs-12-ene-3*β*,17*β*-diol	$C_{29}H_{48}O_2$	-	-	Antirenal fibrosis	Inactive	42
178	3,22-Dioxo-20-taraxastene	$C_{30}H_{46}O_2$	-	-	Antirenal fibrosis	Inactive	42
	Oleanane-type triterpenoids						
179	Comic acid C	$C_{30}H_{48}O_4$	-	-	-	-	58,60
180	*β*-Amyrin	$C_{30}H_{50}O$	-	-	-	-	30
181	3*β*-Amyrin acetate	$C_{32}H_{52}O_2$	-	-	-	-	30
	Polypodane-type triterpenes						
182	Myrrhanol A	$C_{30}H_{52}O_3$	$[\alpha]^{27}_D$ +12.2 (MeOH)	-	Antiinflammatory	Active	62,63
183	Myrrhanone A	$C_{30}H_{50}O_3$	$[\alpha]^{27}_D$ +11.9 (MeOH)	-	Antiinflammatory	Active	62,63

184	Myrrhanol B	$C_{30}H_{50}O_4$	$[\alpha]^{28}_D$ +10.6 (*c* 1.0, MeOH)	-	Antiinflammatory	Active	57
185	Myrrhanone B	$C_{30}H_{48}O_4$	$[\alpha]^{28}_D$ +13.5 (*c* 1.0, MeOH)	-	Antiinflammatory	Inactive	57
186	Myrrhanone A acetate	$C_{32}H_{52}O_4$	$[\alpha]^{23}_D$ +17.1 (*c* 1.0, MeOH)	-	Antiinflammatory	Inactive	57
187	(8*R*)-3*β*,8-Dihydroxy-polypoda-13*E*,17*E*,21*E*-triene (myrrhanol C)	$C_{30}H_{52}O_2$	-	-	Antiinflammatory	Inactive	57
188	(8*R*)-3-Oxo-8-hydroxy-polypoda-13*E*,17*E*,21*E*-triene	$C_{30}H_{50}O_2$	-	-	Antiinflammatory	Inactive	57
	Dammarane-type triterpenoids						
189	16(*S*),20(*R*)-Dihydroxydammar-24-en-3-one	$C_{30}H_{50}O_3$	$[\alpha]^{25}_D$ +55.0 (*c* 0.85, $CHCl_3$)	-	-	-	64
190	(20*S*)-3*β*-Acetoxy-12*β*,16*β* -trihydroxydammar-24-ene	$C_{32}H_{54}O_5$	$[\alpha]^{25}_D$ +46.7 (*c* 1.0, CH_2Cl_2)	-	-	-	30
191	(20*S*)-12*β*,16*β* -trihydroxy-dammar-24-ene-3*β*-O-*β* -glucopyranoside	$C_{36}H_{62}O_9$	$[\alpha]^{25}_D$ +40.0 (*c* 0.5, CH_2Cl_2)	-	-	-	30
192	(20*S*)-3*β*-Acetoxy-12*β*,16*β*, 25-tetrahydroxydammar-23-ene	$C_{32}H_{54}O_5$	$[\alpha]^{25}_D$ +76.0 (*c* 1.0, CH_2Cl_2)	-	-	-	30
193	(20*S*)-3*β*,12*β*,16*β*,25-Pentahydroxydammar-23-ene	$C_{30}H_{52}O_4$	$[\alpha]^{25}_D$ +47.6 (*c* 0.5, CH_2Cl_2)	-	-	-	30
194	(20*R*)-3*β*-Acetoxy-16*β*-dihydroxydammar-24-ene	$C_{32}H_{54}O_4$	-	-	-	-	30
195	(20*R*)-3*β*,16*β*-Trihydroxydammar-24-ene	$C_{30}H_{52}O_3$	-	-	-	-	30
196	3*β*-Acetoxy-16*β*-hydroxydammar-24-ene	$C3_2H_{54}O_3$	-	-	-	-	30
197	3*β*-Hdroxydammar-24-ene	$C_{30}H_{52}O_2$	-	-	-	-	30
198	3*β*-Acetoxydammar-24-ene	$C_{32}H_{54}O_2$	-	-	-	-	30
199	3*β*,16*β*,20(*S*),25-tetrahydroxy-dammar-23-ene	$C_{30}H_{52}O_4$	$[\alpha]^{25}_D$ +13.6 (*c* 1.0, CH_2Cl_2)	-	-	-	31
200	3*β*-acetoxy-16*β*,20(*S*),25-trihydroxydammar-23-ene	$C_{32}H_{54}O_5$	$[\alpha]^{25}_D$ +38.3 (*c* 0.5, CH_2Cl_2)	-	-	-	31
201	Commiphorane G1	$C_{30}H_{46}O_2$	$[\alpha]^{24}_D$ +54.5 (*c* 0.35, MeOH)	MeOH: 245 (4.29), 202 (4.09) nm	Antirenal fibrosis	Inactive	42
202	*rel*-20*S*-Hydroxy-dammar-24-en-3,16-dione	$C_{30}H_{48}O_3$	$[\alpha]^{25}_D$ –111.3 (*c* 0.08, MeOH)	MeOH: 295 (2.80), 256 (3.37), 204 (3.56) nm	-	-	50
203	Hydroxydammarenone II	$C_{30}H_{50}O_2$	$[\alpha]^{24}_D$ +75.7 (*c*	MeOH: 363	-	-	50

			0.18, MeOH)	(1.43), 203 (3.68) nm			
204	Myrrhasin	$C_{30}H_{50}O_2$	$[\alpha]^{20}_D$ –112.0 (*c* 0.041, MeOH)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	32
	Cycloartane-type triterpenoids						
205	l*α*-Acetoxy-9,19-cyclolanost-24-en-3*β*-ol	$C_{32}H_{52}O_3$	-	-	-	-	65
206	Cycloartan-24-ene-1*α*,2*α*,3*α*-triol	$C_{30}H_{52}O_3$	$[\alpha]^{25}_D$ +38.0 (*c* 1.74, MeOH); $[\alpha]^{23}_D$ +62.0 (*c* 0.12, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Moderate active Moderate active	66
207	3*β*-acetoxycycloartan-24-ene-1*α*,2*α*-diol	$C_{32}H_{52}O_4$	$[\alpha]^{23}_D$ +30.0 (*c* 0.115, $CHCl_3$)		Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
208	1*α*-Acetoxycycloartan-24-ene-2*α*,3*β*-diol	$C_{32}H_{52}O_4$	$[\alpha]^{25}_D$ +30.0 (*c* 1.92, MeOH)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
209	3*β*-Isovaleroyloxycycloartan-24-ene-1*α*,2*α*-diol	$C_{35}H_{58}O_4$	$[\alpha]^{23}_D$ +33.0 (*c* 0.12, $CHCl_3$)		Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
210	Cycloartan-24-ene-1*α*,3*β*-diol	$C_{30}H_{50}O_2$	$[\alpha]^{25}_D$ +64.0 (*c* 2.02, MeOH); $[\alpha]^{23}_D$ +58.0 (*c* 0.145, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Moderate active Moderate active	66
211	Cycloartan-23*E*-ene-1*α*,2*α*,3*β*,25-tetrol	$C_{30}H_{50}O_4$	$[\alpha]^{23}_D$ +48.0 (*c* 0.11, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
212	24*R*,25-Epoxycycloartane-1*α*,2*α*,3*β*-triol	$C_{30}H_{50}O_4$	Mixture: $[\alpha]^{23}_D$ +49.0 (*c* 0.14, $CHCl_3$)	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
213	24*S*,25-Epoxycycloartane-1*α*,2*α*,3*β*-triol	$C_{30}H_{50}O_4$		-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
214	Cycloartan-24-ene-1*α*,2*α*,3*β*-triol	$C_{30}H_{50}O_3$	-	-	Cytotoxicity PC-3 cells DU145 cells	 Inactive Inactive	66
215	Cycloartan-24-ene-1*S*,3*R*-diol	$C_{30}H_{50}O_2$	$[\alpha]^{20}_D$ +68.0 (*c* 0.2, acetone)	-	Cytotoxicity HeLa cells	 Inactive	36

					HepG2 cells	Inactive	
216	Cycloartan-23-ene-1*S*′,3*R*′,25-triol	$C_{30}H_{50}O_3$	$[\alpha]^{20}_D$ +96.0 (*c* 0.15, acetone)	-	-	-	36
217	Cycloartane-24-en-1*α*,2*α*,3*β*-triol-1,2-acetonide	$C_{33}H_{54}O_3$	$[\alpha]^{20}_D$ –37.0 (*c* 0.1, acetone)	-	Cytotoxicity HeLa cells HepG2 cells	 Inactive Inactive	36
218	*α*-Acetoxy-9,19-cyclolanost-24-ene-3*β*-ol	$C_{32}H_{52}O_3$	$[\alpha]^{25}_D$ +46.0 (*c* 2.07, MeOH)	-	-	-	50
219	Commikuanoid A	$C_{31}H_{46}O_3$	-	MeOH: 240 (4.27), 236 (4.20) nm	Carbonic anhydrase II	Active IC_{50}: 4.9 μM	67
220	Commikuanoid B	$C_{31}H_{46}O_3$	-	MeOH: 242 (4.02), 236 (4.22) nm	Carbonic anhydrase II	Active IC_{50}: 12.5 μM	67
221	Commikuanoid C	$C_{31}H_{46}O_3$	-	MeOH: 240 (4.27), 236 (4.20) nm	Carbonic anhydrase II	Active IC_{50}: 14.2 μM	67
	Lanostanoid-type triterpenoid						
222	7-Oxo-ganoderic acid Z	$C_{30}H_{46}O_4$	-	-	Cytotoxicity THP-1 cells A549 cells	 Weak active Inactive	43
	Nor-triterpenoids						
223	29-*nor*-Lanost-8,24-dien-l*α*,2*α*,3*β*-triol	$C_{29}H_{48}O_3$	$[\alpha]_D$ +38.2 (*c* 0.1, $CHCl_3$)	-	-	-	65
224	Lophenol	$C_{28}H_{48}O$	-	-	Carbonic anhydrase II	Active IC_{50}: 19.6 μM	67
225	Lophenone	$C_{28}H_{46}O$	-	-	Carbonic anhydrase II	Active IC_{50}: 7.1 μM	67
226	3*β*-Isovaleroyloxy-29-nor-lanost-8,24-diene-1*α*,2*α*-diol	$C_{34}H_{56}O_4$	$[\alpha]^{25}_D$ +28.0 (*c* 2.0, MeOH)	-	-	-	50
227	29-Nor-1,2-*cis*-epoxylanost-8,24-diene-3*β*-triol	$C_{29}H_{46}O_2$	$[\alpha]^{25}_D$ +32.0 (*c* 1.7, MeOH)	-	-	-	50
228	Mansumbinone	$C_{22}H_{34}O$	$[\alpha]^{22}_D$ +16 (*c* 1.0, $CHC1_3$)	-	-	-	64
229	Mansumbinol	$C_{22}H_{36}O$	$[\alpha]^{22}_D$ –23 ($CHC1_3$, *c* 0.18); $[\alpha]^{22}_D$ –19 (*c* 2.64, MeOH)	-	-	-	64

230	15α-Hydroxymansumbinone	$C_{22}H_{34}O_2$	$[\alpha]^{22}_D$ +18.0 (*c* 0.8, $CHCl_3$)	EtOH: 206 (3.46) nm	-	-	28
231	28-Acetoxy-15α-hydroxymansumbinone	$C_{24}H_{36}O_4$	$[\alpha]^{22}_D$ +25.0 (*c* 1.0, $CHCl_3$)	EtOH: 207 (3.52) nm	-	-	28
232	Epimansumbinol	$C_{22}H_{36}O$	$[\alpha]^{24}_D$ –28.1 (*c* 1.0, MeOH)	-	-	-	57
233	Commiphorane G2	$C_{22}H_{34}O$	$[\alpha]^{24}_D$ –111.3 (*c* 0.08, MeOH)	MeOH: 295 (2.80), 256 (3.37), 204 (3.56) nm	Antirenal fibrosis	Inactive	42
					Antiinflammatory	Inactive	
234	3-Oxo-commiphorane G2	$C_{22}H_{32}O$	$[\alpha]^{23}_D$ +11.3 (*c* 0.13, MeOH)	-	-	-	43
235	3,4-*seco*-Mansumbinoic acid	$C_{22}H_{34}O_2$	$[\alpha]^{25}_D$ +1.0 (*c* 1.85, MeOH)	-	Antimicrobial (*Staphylococcus aureus* strains: SA1199B, ATCC25923, XU212, RN4220, and EMRSA15)	SA1199B more active (MIC: 4 μg/mL)	64,29
	Sesquiterpene dimers						
236	Commiphoroid A	$C_{33}H_{48}O_6$	$[\alpha]^{22}_D$ –76.5 (*c* 0.24, MeOH)	MeOH: 249 (3.24), 204 (3.59) nm	Wound healing (Adipose-derived stem cells)	Active at 10 μM	68
237	Commiphoroid B	$C_{33}H_{48}O_6$	$[\alpha]^{22}_D$ –260.5 (*c* 0.66, MeOH)	MeOH: 252 (3.32), 204 (3.72) nm	Wound healing (Adipose-derived stem cells)	Active at 10 μM	68
238	Commiphoroid C	$C_{27}H_{28}O_4$	$[\alpha]^{22}_D$ +37.9 (*c* 0.06, MeOH)	MeOH: 344 (3.36), 310 (3.29) 243 (3.76), 218 (3.77) nm	Wound healing (Adipose-derived stem cells)	Active at 10 μM	68
239	Commiphoroid D	$C_{33}H_{48}O_6$	$[\alpha]^{22}_D$ –190.7 (*c* 0.17, MeOH)	MeOH: 249 (3.46), 203 (3.66) nm	Wound healing (Adipose-derived stem cells)	Active at 10 μM	68
240	Commiphoratone A	$C_{30}H_{32}O_6$	$[\alpha]^{23}_D$ +151.1 (*c* 0.14, MeOH)	MeOH: 278 (3.95), 237 (3.97) nm	Lipid-lowering	Active	68
241	Commiphoratone B	$C_{31}H_{46}O_4$	$[\alpha]^{24}_D$ +58.5 (*c* 0.22, MeOH)	280 (3.29), 195 (3.72) nm	Lipid-lowering	Active	68
242	Commiphoroid E	$C_{30}H_{42}O_4$	$[\alpha]^{25}_D$ +8.8 (*c* 0.04, MeOH)	MeOH: 226 (0.43) nm	Anti-mycobacterial (sensitive strains:	Active at 200 μM	43

					H37Ra, H37Rv; MDR isolated strains: C-200-7, C-200-29, C-200-39)		
243	Commiphoroid F	$C_{30}H_{42}O_4$	$[\alpha]^{25}_D$ +26.58 (*c* 0.16, MeOH)	MeOH: 248 (3.72), 203 (4.05) nm	-	-	43
244	Commiphorine A	$C_{31}H_{38}O_5$	$[\alpha]^{25}_D$ –29.0 (*c* 0.09, MeOH)	MeOH: 307 (3.29), 250 (3.84), 204 (3.86) nm	Lipid-lowering	Active	45,50
					Antiinflammatory	Inactive	
245	Commiphorine B	$C_{27}H_{28}O_5$	$[\alpha]^{25}_D$ +197.3 (*c* 0.16, MeOH)	MeOH: 274 (4.13), 214 (4.35) nm	Lipid-lowering	Active	45
					Antiinflammatory	Active	
246	Commiphoranoid E	$C_{31}H_{36}O_7$	$[\alpha]^{24}_D$ +28.6 (*c* 0.10, MeOH)	MeOH: 289 (4.01), 237 (3.98), 195 (4.15) nm	Lipid-lowering	Active	46
247	Commiphomyrone A	$C_{31}H_{44}O3$	$[\alpha]^{25}_D$ +84.0 (*c* 0.1, MeOH)	MeOH: 228 (4.47), 210 (4.46) nm	Cytotoxic HGC-27 cells	Inactive	70
248	Commiphomyrone B	$C_{31}H_{44}O_3$	$[\alpha]^{25}_D$ –48.0 (*c* 0.1, MeOH)	MeOH: 228 (4.38), 208 (4.39) nm	Cytotoxic HGC-27 cells	Inactive	70
249	Commiphomyrone C	$C_{33}H_{48}O_6$	$[\alpha]^{25}_D$ –186.0 (*c* 0.1, MeOH)	MeOH: 253 (3.94), 208 (4.32) nm	Cytotoxic HGC-27 cells	Active (IC_{50}: 22.76 µM)	70
250	Commiphomyrone D	$C_{32}H_{40}O_6$	$[\alpha]^{25}_D$ +53.0 (*c* 0.1, MeOH)	MeOH: 258 (4.01), 219 (4.46) nm	Cytotoxic HGC-27 cells	Inactive	70
251	Commiphomyrone E	$C_{31}H_{38}O_5$	$[\alpha]^{25}_D$ +32.0 (*c* 0.1, MeOH)	MeOH: 262 (3.93), 216 (4.39) nm	Cytotoxic HGC-27 cells	Inactive	70
252	Commiphomyrone F	$C_{34}H_{44}O_8$	$[\alpha]^{25}_D$ –208.0 (*c* 0.1, MeOH)	MeOH: 254 (4.20), 208 (4.40) nm	Cytotoxic HGC-27 cells	Inactive	70
253	Commiphomyrone G	$C_{30}H_{42}O_4$	$[\alpha]^{25}_D$ +36.0 (*c* 0.1, MeOH)	MeOH: 253 (4.09), 203 (4.03) nm	Cytotoxic HGC-27 cells	Active (IC_{50}: 25.01 µM)	70
254	Commiphorine C	$C_{32}H_{40}O_6$	$[\alpha]^{27}_D$ –33.0 (*c* 0.97, MeOH)	MeOH: 202 (4.06), 277 (3.48)	-	-	51

				nm			
255	Spirocommiphorfuran A	$C_{31}H_{38}O_6$	$[\alpha]^{25}_D$ +9.6 (*c* 0.18, MeOH)	MeOH: 252 (5.32) nm	Cytotoxic	Inactive	51
256	Commiphoroid G1	$C_{30}H_{42}O_3$	$[\alpha]^{24}_D$ +76.9 (*c* 0.18, MeOH)	MeOH: 244 (3.76), 204 (4.21) nm	Antirenal fibrosis		71
257	Commiphoroid G2	$C_{31}H_{44}O_4$	$[\alpha]^{25}_D$ +61.7 (*c* 0.18, MeOH)	MeOH: 244 (3.76), 204 (4.21) nm	Antirenal fibrosis	Inactive	71
258	Commiphoroid G3	$C_{31}H_{44}O_5$	$[\alpha]^{25}_D$ +135.4 (*c* 0.18, MeOH)	MeOH: 244 (3.76), 204 (4.22) nm	Antirenal fibrosis	Inactive	71
259	Commiphoroid H	$C_{30}H_{34}O_5$	$[\alpha]^{24}_D$ +98.7 (*c* 0.17, MeOH)	MeOH: 290 (4.06), 205 (4.27) nm	Antirenal fibrosis	Inactive	71
260	Commiphoratone C	$C_{31}H_{46}O_5$	$[\alpha]^{26}_D$ −131.8 (*c* 0.19, MeOH)	MeOH: 253 (3.83), 202 (3.99) nm	Lipid-lowering	Active	72
261	Commiphoratone D	$C_{33}H_{48}O_6$	$[\alpha]^{22}_D$ −258.2 (*c* 0.20, MeOH)	MeOH: 255 (3.77), 200 (4.10) nm	Lipid-lowering	Active	72
262	Commiphoratone E	$C_{31}H_{44}O_4$	$[\alpha]^{26}_D$ +14.3 (*c* 0.14, MeOH)	MeOH: 229 (4.03), 203 (4.01) nm	Lipid-lowering	Active	72
	Heteroterpenoid dimers						
263	Commiphoranoid D	$C_{39}H_{56}O_6$	$[\alpha]^{20}_D$ −27.0 (c 0.05, MeOH)	MeOH: 233 (3.81), 200 (4.22) nm	Lipid-lowering	Active	46
264	Spiromyrrhene A	$C_{35}H_{42}O_5$	$[\alpha]^{22}_D$ −8.4 (c 0.18, MeOH)	MeOH: 266 (4.01), 197 (4.38) nm	Cytotoxic esophageal cancer	Active (Hippo/Yap pathway inactivation)	73
265	Spiromyrrhene B	$C_{35}H_{42}O_5$	$[\alpha]^{22}_D$ −123.7 (*c* 0.20, MeOH)	MeOH: 266 (4.08), 218 (4.42), 197 (4.48) nm	Cytotoxic esophageal cancer	Active (Hippo/Yap pathway inactivation)	73
266	Spiromyrrhene C	$C_{35}H_{42}O_6$	$[\alpha]^{22}_D$ −76.6 (*c* 0.20, MeOH)	MeOH: 267 (2.03), 217 (2.39) nm	Cytotoxic esophageal cancer	Active (Hippo/Yap pathway inactivation)	73
267	Spiromyrrhene D	$C_{36}H_{46}O_6$	$[\alpha]^{23}_D$ +1.2 (*c* 0.16,	MeOH: 312	-	-	73

			MeOH)	(3.62), 198 (4.30) nm			
268	Commiphoroid I	$C_{36}H_{48}O_6$	$[\alpha]^{24}_D$ +51.3 (*c* 0.35, MeOH	MeOH: 267 (3.49), 203 (3.17) nm	Antirenal fibrosis	Active	71
Steroids							
269	Guggulsterol – I	$C_{27}H_{44}O_4$	-	-	-	-	74
270	Guggulsterol – II	$C_{27}H_{46}O_3$	-	-	-	-	74
271	Guggulsterol – III	$C_{27}H_{44}O_3$	-	-	-	--	74
272	Cholesterol	$C_{27}H_{46}O$	-	-	-	-	74
273	*β*-Sitosterol	$C_{29}H_{50}O$	-	-	-	-	30,24
274	Guggulsterol Y	$C_{27}H_{46}O_4$	$[\alpha]_D$ −28.8 (*c* 0.5, MeOH	MeOH: 210 (5.1) nm	Antiinflammatory J774.1 cells	Inactive	63
275	20*R*,22*R*-dihydroxycholest-4-en-3-one	$C_{27}H_{44}O_3$	-	-	Antiinflammatory J774.1 cells	Active IC_{50}: 20 µM	57
276	Stigmasterol	$C_{29}H_{48}O$	-	-	-	-	38
277	Lathosterol	$C_{27}H_{46}O$	-	-	Carbonic anhydrase II	Active IC_{50}: 7.1 µM	67
278	Δ^7-Stigmastenol	$C_{29}H_{50}O$	-	-	-	-	67
279	4,17(20)-(*trans*)-Pregnadiene-3,16-dione (*Z*-Guggulsterone)	$C_{21}H_{28}O_2$	-	-	Antiinflammatory J774.1 cells	Active IC_{50}: 16.4 mg/mL	74,63
280	4,17(20)-(*cis*)-Pregnadiene-3,16-dione (*E*-guggulsterone)	$C_{21}H_{28}O_2$	-	-	Antiinflammatory J774.1 cells	Active IC_{50}: 12.8 mg/mL	74,63
281	20*α*-Hydroxy-4-pregnen-3-one	$C_{21}H_{32}O_2$	$[\alpha]_D$ +96.54 (*c* 2%)	EtOH: 242 nm	-	-	75
282	20*β*-Hydroxy-4-pregnen-3-one	$C_{21}H_{32}O_2$	$[\alpha]_D$ +88.0 (*c* 2.5%)	EtOH: 242 nm	-	-	75
283	16*β*-Hydroxy-4,17(20)Z-pregnadien-3-one	$C_{21}H_{30}O_2$	$[\alpha]_D$ +137.6 (*c* 1.6%)	EtOH: 242 nm	-	-	75
284	16*α*-Hydroxy-4-pregnadien-3-one	$C_{21}H_{32}O_2$	-	-	-	-	75
285	Guggulsterone M	$C_{22}H_{30}O_3$	$[\alpha]_D$ +93.0 (*c* 0.65, MeOH)	MeOH: 240 (4.3), 275 (4.5) nm	Antiinflammatory J774.1 cells	Active	63
286	Dehydroguggulsterone M	$C_{22}H_{28}O_3$	$[\alpha]_D$ +36.5 (*c* 0.76, MeOH)	MeOH: 210(3.9),245(3.9), 265(4.1) nm	Antiinflammatory J774.1 cells	Active	63
287	Progesterone	$C_{21}H_{30}O_2$	-	-	Antiinflammatory J774.1 cells	Active IC_{50}: 11.0 µM	57
288	4-Pregnene-3,16-dione	$C_{21}H_{30}O_2$	-	-	Antiinflammatory	Active	57

					J774.1 cells	IC_{50}: 40.0 µM	
289	20*S*-Acetyloxy-4-pregnene-3,16-dione	$C_{23}H_{32}O_4$	-	-	Antiinflammatory J774.1 cells	Active IC_{50}: 56.0 µM	57
290	16*β*-Acetyloxy-pregn-4,17(20)-trans-dien-3-one	$C_{23}H_{32}O_3$	-	-	Antiinflammatory J774.1 cells	Active	57
291	3*α*-Acetyloxy-5*α*-pregnan-16-one	$C_{23}H_{34}O_3$	-	-	Antiinflammatory J774.1 cells	Active	57
292	(10*R*,13*S*)-7,8,9,10,11,12,13,14,15,17-Decahydro-17-ethyl-10,13-dimethyl-1H-cyclopenta[a]phenanthrene-3,16(2H,6H)-dione	$C_{21}H_{30}O_2$	-	MeOH: 210 (3.3), 238 (3.7) nm	-	-	55
293	20-Acetyloxy-4-pregnene-3,16-dione	$C_{23}H_{32}O_4$	-	-	-	-	55
Lignans							
294	Erlangerin A	$C_{27}H_{28}O_{11}$	$[\alpha]^{22}_D$ +55 (*c* 0.15, $CHCl_3$)	EtOH: 208 (2.86), 223 (2.88), 284 (2.32) nm	Cytotoxicity HeLa cells EAhy926 cells L929 cells RAW 264.7 cells	 Moderate active Moderate active Moderate active Moderate active	76,77
295	Erlangerin B	$C_{24}H_{24}O_9$	$[\alpha]^{22}_D$ +131 (*c* 0.2, $CHCl_3$)	EtOH: 205 (2.67), 283 (1.62) nm	Cytotoxicity HeLa cells EAhy926 cells L929 cells RAW 264.7 cells	 Moderate active Moderate active Moderate active Moderate active	76,77
296	Erlangerin C	$C_{24}H_{24}O_9$	$[\alpha]^{22}_D$ +35 (*c* 0.34, $CHCl_3$)	EtOH: 205 (2.71), 292 (1.68) nm	Cytotoxicity HeLa cells EAhy926 cells L929 cells RAW 264.7 cells	Active IC_{50}: 68.0 µM IC_{50}: 40.0 µM IC_{50}: 90.0 µM IC_{50}: 44.0 µM	76,77
297	Erlangerin D	$C_{24}H_{24}O_{10}$	$[\alpha]^{22}_D$ +70 (*c* 0.2, $CHCl_3$)	EtOH: 211 (2.82), 290 (2.03) nm	Cytotoxicity HeLa cells EAhy926 cells L929 cells RAW 264.7 cells	Active IC_{50}: 23.0 µM IC_{50}: 4.0 µM IC_{50}: 68.0 µM IC_{50}: 28.0 µM	76,77
298	5,5′-Tetrahydro-1H,3H-furo[3,4-c]furan-1,4-diylbis[7-(methoxy)-1,3-benzodioxole]	$C_{22}H_{22}O_8$	-	MeOH: 210 (4.4), 245 (3.5), 280 (2.9) nm	Antiinflammatory	58% inhibition at 100 ppm	55
299	Diayagambin	$C_{24}H_{30}O_8$	-	-	Antiinflammatory	Inactive	57

Miscellaneous compounds							
300	Octadecan-1,2,3,4-tetrol (Guggultetrol-18)	$C_{18}H_{38}O_4$	-	-	-	-	78,79
301	Eicosan-1,2,3,4-tetrol (guggultetrol-20)	$C_{20}H_{42}O_4$	-	-	-	-	78,79
302	Cerotic acid	$C_{26}H_{52}O_2$	-	-	-	-	24
303	Myrrhain A	$C_{16}H_{22}O_2$	-	MeOH: 287 (2.42) nm	DPPH assay	Moderate activity 126.1 µM	40

Table S2 Physicochemical properties, and biological activities of compounds derived from *Boswellia* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV λ_{max} (logε)	Biological Activity	Activity status	Ref.
Mono terpenoids							
304	1,2,4-Trihydroxy-*p*-menthane	$C_{10}H_{20}O_3$	$[\alpha]^{23}_D$ +345.0 (*c* 1.94, EtOH)	-	-	-	91
305	5-Hydroxy-*p*-menth-6-en-2-one	$C_{10}H_{16}O_2$	-	-	-	-	92
306	Olibanumol A	$C_{10}H_{18}O_3$	$[\alpha]^{28}_D$ +7.6 (*c* 1.0, MeOH)	-	Anti-inflammatory activity	Active (at 30 µM)	93
307	Olibanumol B	$C_{10}H_{18}O_2$	$[\alpha]^{24}_D$ –72.7 (*c* 1.0, MeOH)	-	Anti-inflammatory activity	Inactive	93
308	Olibanumol C	$C_{10}H_{18}O_2$	$[\alpha]^{22}_D$ –6.8 (*c* 1.0, MeOH)	-	Anti-inflammatory activity	Inactive	93
309	3,6-Dihydroxy-*p*-menth-1-ene	$C_{10}H_{18}O_2$	-	-	Anti-inflammatory activity	Inactive	93
310	*p*-Menth-1-en-4*α*,6*β*-diol	$C_{10}H_{18}O_2$	-	-	Anti-inflammatory activity	Inactive	93
311	(–)-*trans*-Sobrerol	$C_{10}H_{18}O_2$	-	-	Anti-inflammatory activity	Inactive	93
312	*p*-Menth-4-en-1,2-diol	$C_{10}H_{18}O_2$	-	-	Anti-inflammatory activity	Inactive	93
313	*p*-Menth-5-en-1,2-diol	$C_{10}H_{18}O_2$	-	-	Anti-inflammatory activity	Inactive	93
314	Carvacrol	$C_{10}H_{14}O$	-	-	-	-	94
Sesquiterpenoids							
315	10-Hydroxy-4-cadinen-3-one	$C_{15}H_{24}O_2$	-	-	-	-	92
316	Rotundone	$C_{15}H_{22}O$	-	-	-	-	95
317	Mustakone	$C_{15}H_{22}O$	-	-	-	-	95

318	(1*R*,6*S*,9*S*,10*R*)-2,2,10-Trimethyl-7-methylenedecahydro-10H-benzo[4,5]cyclo hepta[9,10]oxirene	$C_{15}H_{24}O$	$[\alpha]^{25}_{D}$ –20.7 (*c* 1.4, $CHCl_3$)	-	Antiinflammatory	Inactive	96
319	*β*-Bourbonene	$C_{15}H_{24}$	-	-	-	-	94
Diterpenoids							
	Cembrane-type						
320	Incensole (Incensol)	$C_{20}H_{34}O_2$	$[\alpha]^{25}_{D}$ –11.8 (*c* 0.06, CH_2Cl_2)	-	Antiinflammatory (RAW 264.7 cells)	Active	97,98,99,100,101,102
321	Incensole-oxide	$C_{20}H_{34}O_3$	$[\alpha]^{25}_{D}$ –25 (*c* 0.2, MeOH)	MeOH: 204 (3.62) nm	-	-	98,103
322	Isoincensole-oxide	$C_{20}H_{34}O_3$	-	-	Antiplasmodial	Active IC_{50}: 9.6 µM	104,105,99,94,106
323	Incensole acetate	$C_{22}H_{36}O_3$	-	-	Antiinflammatory (RAW 264.7 cells)	Active	100,101
324	Isoincensole acetate	$C_{22}H_{36}O_3$	-	-	Cytotoxicity Bel cells HeLa cells SW-480 cells	 Inactive Inactive Inactive	107
325	Isoincensolol	$C_{20}H_{36}O_4$	-	-	Cytotoxicity Bel cells HeLa cells SW-480 cells	 Inactive Inactive Inactive	107,102,108
326	Incensole oxide acetate	$C_{22}H_{36}O_4$	-	-	Cytotoxicity Bel cells HeLa cells SW-480 cells	 Inactive Inactive Inactive	107
327	Serratol	$C_{20}H_{34}O$	-	-	Antiplasmodial	Inactive	96,109,94
328	Boscartin A	$C_{20}H_{34}O_4$	$[\alpha]^{25}_{D}$ –18.0 (*c* 0.2, MeOH)	MeOH: 205 (3.77) nm	Antiulcerative colitis	Active EC_{50}: 0.34 µM	110,111

329	Boscartin B	$C_{20}H_{34}O_5$	$[\alpha]^{25}_D$ +62.0 (*c* 0.5, MeOH)	-	Antiulcerative colitis	Inactive	110
330	Boscartin C	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ −6.0 (*c* 0.4, MeOH)	MeOH: 203 (3.69) nm	Antiulcerative colitis	Inactive	110, 111
331	Boscartin D	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ −40.0 (*c* 0.8, MeOH)	MeOH: 206 (3.20), 240 (3.49) nm	Antiulcerative colitis	Inactive	110, 111
332	Boscartin E	$C_{20}H_{32}O_5$	$[\alpha]^{25}_D$ +5.0 (*c* 0.3, MeOH)	MeOH: 204 (3.21), 223 (3.21) nm	Antiulcerative colitis	Active EC_{50}: 1.14 μM	110, 111
333	Boscartin F	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ −13.0 (*c* 0.1, MeOH)	MeOH: 206 (3.54), 231 (3.72) nm	Antiulcerative colitis	Active EC_{50}: 0.88 μM	110, 111, 108
334	Boscartin G	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ +4.0 (*c* 0.1, MeOH)	MeOH: 206 (3.34), 231 (3.53) nm	Antiulcerative colitis	Active EC_{50}: 0.42 μM	110, 111
335	Boscartin H	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ −9.0 (*c* 0.1, MeOH)	MeOH: 202 (3.31), 238 (3.53) nm	Antiulcerative colitis	Inactive	110, 108
141	Cembrene A	$C_{20}H_{32}$	-	-	Antiplasmodial	Active (IC_{50}: 9.9 μM)	94
336	1*S*,3*E*,7*R*,8*R*,11*E*-7,8-Epoxy-cembra-3,11-dien-1-ol	$C_{20}H_{34}O_2$	-	-	Antiplasmodial	Active (IC_{50}: 32.0 μM)	94
337	(1*S*,3*R*,7*E*,11*S*,12*R*)-1,12-Epoxy-4-methylenecembr-7-ene-3,11-diol	$C_{20}H_{34}O_3$	-	-	-	-	94
338	Isodecaryiol	$C_{20}H_{34}O_2$	-	-	Antiplasmodial	Active (IC_{50}: 7.5 μM)	94
339	Incensfuran	$C_{20}H_{34}O_2$	$[\alpha]^{25}_D$ −15.2 (*c* 0.26, MeOH)	-	-	-	112
340	Boscartin I	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_D$ −104.1 (*c* 0.66, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113
341	Boscartin K	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_D$ +56.7 (*c* 0.33, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113
342	Boscartin J	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_D$ −7.0 (*c* 0.5, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113, 108
343	1,4-Epoxy-8,13-cembrandien-5,12-diol	$C_{20}H_{34}O_3$	-	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113

344	Boscartin P	$C_{20}H_{34}O_4$	$[\alpha]^{20}_D$ –74.6 (*c* 0.3, $CHCl_3$)	$CHCl_3$: 232 (1.99) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	
345	Boscartin Q	$C_{22}H_{36}O_5$	$[\alpha]^{20}_D$ –25.4 (*c* 0.14, $CHCl_3$)	$CHCl_3$: 246 (2.44) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Inactive	
346	Boscartin R	$C_{22}H_{38}O_6$	$[\alpha]^{20}_D$ +15.3 (*c* 0.11, $CHCl_3$)	$CHCl_3$: 243 (3.17) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	
					Hepatoprotective HL-7702 cells	Inactive	
347	Boscartin S	$C_{22}H_{38}O_6$	$[\alpha]^{20}_D$ +16.8 (*c* 0.9, $CHCl_3$)	$CHCl_3$: 242 (3.04), 274 (2.85) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Inactive	

348	Boscartin T	$C_{19}H_{30}O_4$	$[\alpha]^{20}_D$ +89.8 (*c* 0.11, $CHCl_3$)	$CHCl_3$: 245 (3.67) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	
349	Boscartin U	$C_{22}H_{36}O_5$	$[\alpha]^{20}_D$ –42.1 (*c* 0.25, $CHCl_3$)	$CHCl_3$: 256 (2.58) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	
350	Boscartin V	$C_{20}H_{34}O_4$	$[\alpha]^{20}_D$ –39.6 (*c* 0.5, $CHCl_3$)	$CHCl_3$: 234 (2.40), 255 (2.50), 274 (2.52) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	
351	Boscartin W	$C_{20}H_{34}O_4$	$[\alpha]^{20}_D$ +2.1 (*c* 0.4, $CHCl_3$)	$CHCl_3$: 245 (2.70), 272 (2.64) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	

352	Boscartin X	$C_{22}H_{36}O_4$	$[\alpha]^{20}_D$ –8.9 (*c* 0.11, $CHCl_3$)	$CHCl_3$: 244 (2.69) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780 Hepatoprotective HL-7702 cells	 Inactive Inactive Inactive Inactive Inactive Moderate active	114
353	Boscartin Y	$C_{20}H_{32}O_3$	$[\alpha]^{20}_D$ –124.1 (*c* 0.1, $CHCl_3$)	$CHCl_3$: 246 (3.58) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780 Hepatoprotective HL-7702 cells	 Inactive Inactive Inactive Inactive Inactive Moderate active	114, 108
354	Boscartin Z	$C_{22}H_{34}O_5$	$[\alpha]^{20}_D$ –10.0 (*c* 0.1, $CHCl_3$)	$CHCl_3$: 246 (3.27) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780 Hepatoprotective HL-7702 cells	 Inactive Inactive Inactive Inactive Inactive Inactive	114
355	Boscartin AA	$C_{20}H_{34}O_4$	$[\alpha]^{20}_D$ –33.7 (*c* 0.54, $CHCl_3$)	$CHCl_3$: 245 (4.47) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780 Hepatoprotective HL-7702 cells	 Inactive Inactive Inactive Inactive Inactive Moderate active	114
356	Boscartin AB	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ –29.6 (*c* 0.45, $CHCl_3$)	$CHCl_3$: 249 (3.30) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114

					Hepatoprotective HL-7702 cells	Moderate active	
357	Boscartin AC	$C_{22}H_{36}O_4$	$[\alpha]^{20}_D$ −47.2 (*c* 0.12, $CHCl_3$)	$CHCl_3$: 246 (2.97) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Inactive	
358	Boscartin AD	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −10.0 (*c* 0.5, $CHCl_3$)	$CHCl_3$: 244 (2.73) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Inactive	
359	Boscartin AE	$C_{20}H_{34}O_4$	$[\alpha]^{20}_D$ −34.8 (*c* 0.45, $CHCl_3$)	$CHCl_3$: 242 (2.46) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	
360	Boscartin AF	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −42.7 (*c* 0.5, $CHCl_3$)	$CHCl_3$: 233 (2.81) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 cells A2780 cells	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Moderate active	

361	Boscartin AG	$C_{22}H_{36}O_4$	$[\alpha]^{20}_D$ +11.5 (*c* 0.5, $CHCl_3$)	$CHCl_3$: 245 (3.11) nm	Cytotoxicity Bel-7402 cells HCT-8 cells A549 cells BGC-823 A2780	 Inactive Inactive Inactive Inactive Inactive	114
					Hepatoprotective HL-7702 cells	Inactive	
362	Boscartin L	$C_{22}H_{36}O_4$	$[\alpha]^{20}_D$ –9.7 (*c* 0.27, MeOH)	MeOH: 203 (2.51) nm	-	-	115
363	Boscartin M	$C_{22}H_{36}O_4$	$[\alpha]^{20}_D$ +75.7 (*c* 0.13, MeOH)	MeOH: 205 (2.55) nm	-	-	115
364	Boscartin N	$C_{22}H_{36}O_5$	$[\alpha]^{20}_D$ –38.5 (*c* 0.09, MeOH)	MeOH: 206 (2.42) nm	-	-	115
365	Boscartin O	$C_{20}H_{32}O_2$	$[\alpha]^{20}_D$ +61.0 (*c* 0.19, MeOH)	MeOH: 205 (2.78) nm	-	-	115
366	Boscartins AP	$C_{22}H_{36}O_5$	$[\alpha]^{25}_D$ +40.8 (*c* 0.19, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 13.1 μM	116
					Hepatoprotective HepG2 cells	Active inhibition rate: 30.7% > bicyclol drug	
367	Boscartins AQ	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +1.5 (*c* 0.20, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	 Inactive	
368	Boscartins AR	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +1.14 (*c* 0.175, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	 Inactive	
369	Boscartins AS	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +4.0 (*c* 0.05, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	Active inhibition rate: 26.3% ~ bicyclol drug	
370	Boscartins AT	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +8.2 (*c* 0.225, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	 Inactive	

371	Boscartins AU	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +7.9 (*c* 0.1, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	Active inhibition rate: 25.9% ~ bicyclol drug	
372	Boscartins AV	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +8.8 (*c* 0.125, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	Inactive	
373	Boscartins AW	$C_{22}H_{34}O_4$	$[\alpha]^{25}_D$ +5.33 (*c* 0.075, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 50 μM	116
					Hepatoprotective HepG2 cells	Inactive	
374	Boscartin AL	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −22.4 (*c* 0.17, MeOH)	MeOH: 203.8 (2.85) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Inactive	
375	Boscartin AM	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −98.1 (*c* 0.13, MeOH)	MeOH: 203.6 (2.83) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Inactive	
376	Boscartin AN	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −65.1 (*c* 0.20, MeOH)	MeOH: 204.0 (2.78) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Inactive	
377	Boscartin AO	$C_{20}H_{36}O_4$	$[\alpha]^{20}_D$ −74.2 (*c* 0.13, MeOH)	MeOH: 202.4 (2.85) nm	Hepatoprotective HepG2 cells	Active (viability rate: 80.5%)	106
					Neuroprotective SK-N-SH ceslls	Inactive	
378	Boscartin AP	$C_{20}H_{36}O_4$	$[\alpha]^{20}_D$ +18.7 (*c* 0.18, MeOH)	MeOH: 204.0 (2.92) nm	Hepatoprotective HepG2 cells	Active (viability rate: 77.3%)	106
					Neuroprotective SK-N-SH ceslls	Inactive	
379	Boscartin AS	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ −17.0 (*c* 0.10, MeOH)	MeOH: 203.6 (2.73) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Inactive	

380	(1*S*,3*E*,7*E*,11*S*,12*R*)-1-Isopropyl-4,8,12-trimethyl-11-hydroxyl-15-oxabicyclo [10.2.1] pentadeca-3,7-dien-9-one	$C_{20}H_{32}O_3$	-	-	Hepatoprotective HepG2 cells	Active (viability rate: 72.5%)	106
					Neuroprotective SK-N-SH ceslls	Inactive	
381	Boscartin AQ	$C_{20}H_{36}O_4$	$[\alpha]^{20}_D$ +77.6 (*c* 0.13, MeOH)	MeOH: 203.6 (3.04) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Inactive	
382	Boscartin AR	$C_{20}H_{36}O_4$	$[\alpha]^{20}_D$ –16.2 (*c* 0.08, MeOH)	MeOH: 204.0 (2.55) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Moderate active	
383	Boscartin AT (boscartinaol C)	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ –56.3 (*c* 0.1, MeOH)	MeOH: 204.2 (3.19) nm	Hepatoprotective HepG2 cells	Inactive	106, 1117 ,108
					Neuroprotective SK-N-SH ceslls	Inactive	
384	Boscartin AU	$C_{20}H_{32}O_2$	$[\alpha]^{20}_D$ –87.8 (*c* 0.1, MeOH)	MeOH: 204.0 (3.10) nm	Hepatoprotective HepG2 cells	Inactive	106
					Neuroprotective SK-N-SH ceslls	Moderate active	
385	3,7,15-Cembrantrien-6-ol	$C_{20}H_{32}O$	-	-	Hepatoprotective HepG2 cells	Inactive	
					Neuroprotective SK-N-SH ceslls	Inactive	
386	Boscartins AH	$C_{22}H_{34}O_5$	$[\alpha]^{25}_D$ –40.9 (*c* 0.1, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 μM	106
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 μM	
					Hepatoprotective	Active (> bicyclol drug)	
387	Boscartins AI	$C_{22}H_{34}O_5$	$[\alpha]^{25}_D$ +31.8 (*c* 0.67, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 μM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 μM	

					Hepatoprotective	Active	
388	Boscartins AJ	$C_{22}H_{36}O_5$	$[\alpha]^{25}_D$ +7.8 (*c* 0.57, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 µM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 µM	
					Hepatoprotective	Active	
389	Boscartins AK	$C_{22}H_{36}O_5$	$[\alpha]^{25}_D$ +12.5 (*c* 0.37, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 µM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 µM	
					Hepatoprotective	Active	
390	Boscartins AL	$C_{22}H_{36}O_5$	$[\alpha]^{25}_D$ +40.5 (*c* 0.11, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 µM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 µM	
					Hepatoprotective	Active	
391	Boscartins AM	$C_{22}H_{36}O_5$	$[\alpha]^{25}_D$ +17.0 (*c* 1.0, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 µM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 µM	
					-Hepatoprotective	Active	
392	Boscartins AN	$C_{22}H_{34}O_4$	$[\alpha]^{25}_D$ –27.9 (*c* 0.33, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Weak active IC_{50} > 30 µM	118
					Cytotoxicity HCT-116	Weak active IC_{50} > 100 µM	
					Hepatoprotective	Inactive	
393	Boscartins AO	$C_{22}H_{34}O_5$	$[\alpha]^{25}_D$ –12.0 (*c* 0.13, $CHCl_3$)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 14.8 µM	118
					Hepatoprotective	Inactive	
394	(1*S*,2*E*,4*R*,5*S*,7*E*,11*E*)-4-methoxy-5-hydroxycembrane	$C_{21}H_{36}O_2$	$[\alpha]^{25}_D$ –64 (*c* 0.1, MeOH)	MeOH: 209 (2. 35) nm	-	-	119
395	Pavidolide D	$C_{20}H_{34}O_2$	-	-	-	-	119
396	Sacraoxide A	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +15.0 (*c*	MeOH: 201 (3.88)	Antiinflammatory	Inactive	120

			0.12, MeOH)	nm	(RAW 264.7 cells)		
397	Sacraoxide B	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ –4.1 (*c* 0.1, MeOH)	MeOH: 202 (3.31) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	120
398	Sacraoxide C	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +10.4 (*c* 0.1, MeOH)	MeOH: 201 (3.18) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	120
399	Sacraoxide D	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +47.7 (*c* 0.1, MeOH)	MeOH: 201 (3.09) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	120
400	Sacraoxide E	$C_{22}H_{34}O_4$	$[\alpha]^{25}_D$ +47.7 (*c* 0.1, MeOH)	MeOH: 201 (3.38), 234 (3.08) nm	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 24.9 µM	120
401	Sacraoxide F	$C_{22}H_{34}O_4$	$[\alpha]^{25}_D$ +10.2 (*c* 0.1, MeOH)	MeOH: 201 (3.50), 226 (3.10) nm	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 36.4 µM	120
402	Sacraoxide G	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +115.0 (*c* 0.11, MeOH)	MeOH: 201 (3.29) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	120
403	Boscartinol A	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ –6.25 (*c* 0.8, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	117
					Hepatoprotective	Active (inhibition rate: 51.6% at 10 µM)	
404	Boscartinol B	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +73.5 (*c* 0.6, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 13.4 µM	117
					Hepatoprotective	Inactive at 10 µM	
405	Boscartinol D	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ –12.1 (*c* 0.21, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 14.26 µM	117
					Hepatoprotective	Inactive at 10 µM	
406	Boscartinol E	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ –6.0 (*c* 0.7, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	117
					Hepatoprotective	Active (inhibition rate: 39.8% at 10 µM)	
407	Boscartins AX	$C_{20}H_{32}O_3$	$[\alpha]_D$ +5.0 (*c* 0.2, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 2.39 µM	121
					Hepatoprotective	Active (inhibition rate: 47.81% at 10 µM)	
408	Boscartins AY	$C_{20}H_{34}O_3$	$[\alpha]_D$ –3.2 (*c* 0.25, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	121

					Hepatoprotective	Inactive at 10 µM	
409	Boscartins AZ	$C_{20}H_{32}O_4$	$[\alpha]_D$ –4.8 (*c* 0.125, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	121
					Hepatoprotective	Inactive at 10 µM	
410	Papyrifuranol A	$C_{20}H_{36}O_4$	$[\alpha]^{25}_D$ +29.6 (*c* 0.1, MeOH)	MeOH: 189 (4.06) nm	Wound healing	Active	108
411	Papyrifuranol B	$C_{20}H_{36}O_4$	$[\alpha]^{25}_D$ +8.0 (*c* 0.1, MeOH)	MeOH: 200 (3.17) nm	Wound healing	Active	108
412	Papyrifuranol C	$C_{20}H_{36}O_5$	$[\alpha]^{25}_D$ –53.3 (*c* 0.1, MeOH)	MeOH: 191 (3.62) nm	Wound healing	Active	108
413	Papyrifuranol D	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +35.8 (*c* 0.04, MeOH)	MeOH: 200 (3.81) nm	Wound healing	Active	108
414	Papyrifuranol E	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ –59.0 (*c* 0.1, MeOH)	MeOH: 196 (3.03) nm	Wound healing	Active	108
415	Papyrifuranol F	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +6.7 (*c* 0.05, MeOH)	MeOH: 200 (3.56) nm	Wound healing	Active	108
416	Papyrifuranol G	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +18.0 (*c* 0.05, MeOH)	MeOH: 200 (3.88) nm	Wound healing	Active	108
417	Papyrifuranol H	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +6.7 (*c* 0.05, MeOH)	MeOH: 200 (3.75) nm	Wound healing	Active	108
418	Papyrifuranol I	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ +20.0 (*c* 0.01, MeOH)	MeOH: 226 (3.77), 200 (3.86) nm	Wound healing	Active	108
419	Papyrifuranol J	$C_{20}H_{32}O_3$	$[\alpha]^{25}_D$ +30.0 (*c* 0.03, MeOH)	MeOH: 221 (3.39), 200 (3.55) nm	Wound healing	Active	108
420	Papyrifuranol K	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +2.7 (*c* 0.05, MeOH)	MeOH: 200 (3.45) nm	Wound healing	Active	108
421	Papyrifuranol L	$C_{21}H_{34}O_4$	$[\alpha]^{25}_D$ +46.6 (*c* 0.03, MeOH)	MeOH: 200 (3.82) nm	Wound healing	Active	108
422	Papyrifuranol M	$C_{21}H_{36}O_4$	$[\alpha]^{25}_D$ –3.3 (*c* 0.05, MeOH)	MeOH: 200 (4.02) nm	Wound healing	Active	108
423	Papyrifuranol N	$C_{21}H_{36}O_3$	$[\alpha]^{25}_D$ –85.6 (*c* 0.2, MeOH)	MeOH: 200 (3.92) nm	Wound healing	More significant active	108
424	Papyrifuranol O	$C_{21}H_{36}O_3$	$[\alpha]^{25}_D$ –8.8 (*c* 0.2, MeOH)	MeOH: 200 (3.92) nm	Wound healing	More significant active	108
425	Papyrifuranol P	$C_{21}H_{36}O_3$	$[\alpha]^{25}_D$ +25.0 (*c*	MeOH: 200 (3.40)	Wound healing	More significant active	108

			0.03, MeOH)	nm			
426	Papyrifuranol Q	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +110.7 (*c* 0.05, MeOH)	MeOH: 200 (3.80) nm	Wound healing	Active	108
427	Papyrifuranol R	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +14.7 (*c* 0.15, MeOH)	MeOH: 200 (3.74) nm	Wound healing	Active	108
428	Papyrifuranol S	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ +39.3 (*c* 0.05, MeOH)	MeOH: 200 (3.65) nm	Wound healing	Active	108
429	Papyrifuranol T	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ –91.1 (*c* 0.01, MeOH)	MeOH: 220 (3.36), 200 (3.64) nm	Wound healing	Active	108
430	Papyrifuranol U	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ –25.6 (*c* 0.03, MeOH)	MeOH: 200 (3.51) nm	Wound healing	Active	108
431	Papyrifuranol V	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ +30.6 (*c* 0.05, MeOH)	MeOH: 200 (3.74) nm	Wound healing	Active	108
432	Papyrifuranol W	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ –32.6 (*c* 0.05, MeOH)	MeOH: 200 (3.81) nm	Wound healing	Active	108
433	Papyrifuranol X	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ –12.0 (*c* 0.1, MeOH)	MeOH: 234 (2.64), 200 (2.87) nm	Wound healing	Active	108
434	Papyrifuranol Y	$C_{20}H_{32}O_4$	$[\alpha]^{25}_D$ –64.8 (*c* 0.2, MeOH)	MeOH: 242 (3.73), 200 (3.72) nm	Wound healing	Active	108
435	Papyrifuranol Z	$C_{20}H_{32}O_5$	$[\alpha]^{25}_D$ +2.6 (*c* 0.05, MeOH)	MeOH: 200 (3.02) nm	Wound healing	Active	108
436	Papyrifuranol AA	$C_{21}H_{38}O_5$	$[\alpha]^{25}_D$ –3.2 (*c* 0.03, MeOH)	MeOH: 200 (2.95) nm	Wound healing	Active	108
437	Papyrifuranol AB	$C_{21}H_{36}O_4$	$[\alpha]^{25}_D$ +41.0 (*c* 0.1, MeOH)	MeOH: 200 (3.72) nm	Wound healing	Active	108
438	Papyrifuranol AC	$C_{21}H_{36}O_4$	$[\alpha]^{25}_D$ +11.3 (*c* 0.1, MeOH)	MeOH: 200 (3.86) nm	Wound healing	Active	108
439	Papyrifuranol AD	$C_{21}H_{36}O_4$	$[\alpha]^{25}_D$ +42.2 (*c* 0.03, MeOH)	MeOH: 200 (3.89) nm	Wound healing	Active	108
440	Boswelliain A	$C_{20}H_{30}O_3$	$[\alpha]^{25}_D$ +22.0 (*c* 0.06, MeOH)	MeOH: 223 (3.40) nm	Wound healing	Active	122
441	Boswelliain B	$C_{22}H_{36}O_4$	$[\alpha]^{25}_D$ +3.5 (*c* 0.06, MeOH)	MeOH: 220 (3.97) nm	Wound healing	More significant active	122
442	Boswelliain C	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ –4.9 (*c* 0.03, MeOH)	MeOH: 200 (5.54) nm	Wound healing	More significant active	122

443	Boswelliain D	$C_{20}H_{34}O_4$	$[\alpha]^{25}_D$ +8.8 (*c* 0.07, MeOH)	MeOH: 230 (3.83) nm	Wound healing	Active	122
444	Boswelliain E	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ 0 (*c* 0.06, MeOH)	MeOH: 230 (3.74) nm	Wound healing	Active	122
	Verticillane-diterpenoids						
445	(1*S*,3*E*,7*E*,11*R*)-Verticilla-3,7,12 (18)-triene	$C_{20}H_{32}$	-	-	-	-	94
446	Sacrone A	$C_{20}H_{30}O_2$	$[\alpha]^{25}_D$ –17.8 (*c* 0.3, MeOH)	MeOH: 202 (3.56), 255 (3.51) nm	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 23.3 μM	123
447	Sacrone B	$C_{20}H_{28}O_3$	$[\alpha]^{25}_D$ +4.0 (*c* 0.1, MeOH)	MeOH: 201 (3.45), 222 (3.34) 250 (2.91) nm	Antiinflammatory (RAW 264.7 cells)	Inactive	123
	Abietane-type diterpenoid						
158	Dehydroabietic acid	$C_{20}H_{28}O_2$	-	-	-	-	124
	Prenylaromadendrane-type diterpenoids						
448	Olibanumol D	$C_{20}H_{30}O$	$[\alpha]^{24}_D$ –23.2 (*c* 1.0, MeOH)	MeOH: 247 (4.30) nm	Antiinflammatory (RAW 264.7 cells)	Active	125
449	Boscartol A	$C_{20}H_{30}O_2$	$[\alpha]^{20}_D$ –14.6 (*c* 1.0, $CHCl_3$)	$CHCl_3$: 257 (3.23) nm	Hepatoprotective HL-7702 cells	Moderate active	126
450	Boscartol B	$C_{20}H_{32}O_2$	$[\alpha]^{20}_D$ –6.25 (*c* 1.6, $CHCl_3$)	$CHCl_3$: 250 (2.68) nm	Hepatoprotective HL-7702 cells	Moderate active	126
451	Boscartol C	$C_{20}H_{32}O_2$	$[\alpha]^{20}_D$ –14.5 (*c* 1.0, $CHCl_3$)	$CHCl_3$: 245 (2.57) nm	Hepatoprotective HL-7702 cells	Moderate active	126
452	Boscartol D	$C_{21}H_{32}O_2$	$[\alpha]^{20}_D$ –7.7 (*c* 0.2, $CHCl_3$)	$CHCl_3$: 242 (2.88) nm	Hepatoprotective HL-7702 cells	Inactive	126
453	Boscartol E	$C_{20}H_{32}O_2$	$[\alpha]^{20}_D$ –0.47 (*c* 1.0, $CHCl_3$)	$CHCl_3$: 246 (2.12) nm	Hepatoprotective HL-7702 cells	Moderate active	126
454	Boscartol F	$C_{20}H_{28}O_2$	$[\alpha]^{20}_D$ –28.6 (*c* 0.36, $CHCl_3$)	$CHCl_3$: 304 (4.62) nm	Hepatoprotective HL-7702 cells	Moderate active	126
455	Boscartol G	$C_{20}H_{28}O_3$	$[\alpha]^{20}_D$ +63.2 (*c* 0.36, $CHCl_3$)	$CHCl_3$: 243 (2.97) nm	Hepatoprotective HL-7702 cells	Inactive	126
456	Boscartol H	$C_{20}H_{28}O_3$	$[\alpha]^{20}_D$ –41.0 (*c* 0.53, $CHCl_3$)	$CHCl_3$: 243 (2.89) nm	Hepatoprotective HL-7702 cells	Moderate active	126
457	Boscartol I	$C_{20}H_{28}O_3$	$[\alpha]^{20}_D$ –7.7 (*c* 0.2, $CHCl_3$)	$CHCl_3$: 242 (2.88) nm	Hepatoprotective HL-7702 cells	Moderate active	126
458	Boscartol K	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_D$ +162 (*c* 0.1, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 2.22 μM	113

459	Boscartol L	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_{D}$ +40.5 (*c* 0.11, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Active IC_{50}: 1.10 µM	113
460	Boscartol M	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_{D}$ +12.7 (*c* 0.13, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113
461	Boscartol N	$C_{48}H_{72}O_{19}$	$[\alpha]^{25}_{D}$ -26.2 (*c* 0.13, MeOH)	-	Antiinflammatory (RAW 264.7 cells)	Inactive	113
462	Boscarterin A	$C_{20}H_{28}O_3$	$[\alpha]^{20}_{D}$ –33.1 (*c* 0.4, $CHCl_3$)	MeOH: 276 (0.28) nm	Cytotoxicity HepG2 cells A549 MCF-7	 Weak active Weak active Weak active	127
463	Boscartol O	$C_{20}H_{28}O_3$	$[\alpha]^{20}_{D}$ –52.6 (*c* 0.21, MeOH)	MeOH: 204.0 (3.79) nm	Cytotoxicity U87-MG cells	Active > 5-fluorouracil drug	128
464	Boscartol P	$C_{22}H_{32}O_2$	$[\alpha]^{20}_{D}$ –21.6 (*c* 0.15, MeOH)	MeOH: 203.6 (4.08) nm	Cytotoxicity U87-MG cells	Active > 5-fluorouracil drug	128
Triterpenoids							
	Lupane-type triterpenoids						
465	Epilupeol	$C_{30}H_{50}O$	-	-	-	-	129, 130
466	Epilupeol acetate	$C_{32}H_{52}O_2$	-	-	-	-	13
467	Lup-20(30)-ene-3*α*,29-diol	$C_{30}H_{50}O_2$	-	-	-	-	130
468	Glochidiol	$C_{30}H_{50}O_2$	-	-	-	-	130
469	Lupeol	$C_{30}H_{50}O$	-	-	-	-	129
470	Lup-20(29)-ene-2*α*,3*β*-diol	$C_{30}H_{50}O_2$	-	-	-	-	130
471	3*β*-Acetoxylup-20(29)-en-11*β*-ol	$C_{32}H_{52}O_2$	-	-	-	-	130
472	3*α*-Acetyl-20(29)-lupene-24-oic acid	$C_{32}H_{50}O_4$	-	202 nm (recorded in HPLC purification)	Antiinflammatory	Active (ID_{50}: 0.10 mg/ear)	131, 100
473	3*α*-Hydroxy-lup-20(29)-en-24-oic acid	$C_{30}H_{48}O_3$	$[\alpha]^{25}_{D}$ +16.0 (*c* 1.15, $CHCl_3$)	EtOH: 208 nm	Antiinflammatory	Active (ID_{50}: 0.12 mg/ear)	131, 100
474	Olibanumol H	$C_{30}H_{52}O_3$	$[\alpha]^{30}_{D}$ +1.5 (*c* 1.0, MeOH)	-	Antiinflammatory	Active	93
475	Olibanumol I	$C_{29}H_{48}O_2$	$[\alpha]^{30}_{D}$ –22.7 (*c* 1.0, MeOH)	-	Antiinflammatory	Active	93
476	Lupenone	$C_{30}H_{48}O$	-	-	-	-	130
477	Olibanumol F	$C_{31}H_{50}O_2$	$[\alpha]^{30}_{D}$ +1.5 (*c* 1.0, MeOH)	-	Antiinflammatory	Inactive	125
478	Olibanumol G	$C_{30}H_{50}O_2$	$[\alpha]^{25}_{D}$ +13.6 (*c* 1.0, MeOH)	-	Antiinflammatory	Inactive	125

479	3α-Acetoxylup-12:20(29)-dien-24-oic acid	$C_{32}H_{48}O_4$	$[\alpha]^{30}_D$ –37.5 (*c* 0.8, $CDCl_3$)	-	-	-	132
	Dammarane-type triterpenoids						
480	3β-Acetoxy-16(*S*),20(*R*)-dihydroxydammar-24-ene	$C_{32}H_{54}O_4$	$[\alpha]^{25}_D$ +25.0 (*c* 0.9, MeOH)	-	-	-	133
481	3β,20(*S*)-Dihydroxydammar-24-ene	$C_{30}H_{52}O_2$	-	-	-	-	133
482	Acetyl derivative of 3β,20(*S*)-dihydroxydammar-24-ene	$C_{32}H_{54}O_3$	-	-	-	-	133
483	(20*S*)-Protopanaxadiol	$C_{30}H_{52}O_3$	-	-	-	-	133
484	Olibanumol J	$C_{30}H_{52}O_3$	$[\alpha]^{22}_D$ +1.1 (*c* 1.0, MeOH)	-	Antiinflammatory	Inactive	93
485	Dammarenediol II	$C_{30}H_{52}O_2$	-	-	-	-	130
486	Dammarenediol II acetate	$C_{32}H_{54}O_3$	-	-	-	-	130
487	3-*O*-Acetyl-3b,20*S*,24-trihydroxydammar-25-ene	$C_{32}H_{54}O_4$	-	-	-	-	130
488	Isofouquierol	$C_{30}H_{52}O_3$	-	-	Antiinflammatory	Active	130, 93
489	Isofouquierol acetate	$C_{32}H_{54}O_4$	-	-	-	-	130
490	Ocotillol acetate	$C_{32}H_{54}O_4$	-	-	-	-	130
491	3β-Hydroxymansumbin-13(17)-en-16-one	$C_{22}H_{34}O_2$	-	-	-	-	130
492	Boscartene K	$C_{24}H_{36}O_3$	$[\alpha]^{20}_D$ –25.8 (*c* 0.08, $CHCl_3$)	$CHCl_3$: 245(3.83)nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Moderate active (at 10 μM)	
229	Mansumbinol	$C_{22}H_{36}O$	-	-	-	-	130
	Ursane-type tritepenoids						
493	2α,3α-Dihydroxy-urs-12-ene-24-oic acid	$C_{30}H_{48}O_4$	-	-	-	-	135
494	Commic acid D	$C_{30}H_{48}O_4$	-	-	-	-	132
495	Urs-12-ene-3α,24-diol	$C_{30}H_{50}O_2$	-	-	-	-	135
496	3α-Hydroxy-urs-12-en-24-oic acid (*β*-boswellic acid)	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.2 mg/ear)	136, 135, 100
497	Acetyl-*β*-boswellic acid	$C_{32}H_{50}O_4$	-	205 nm	Antiinflammatory	Active (ID_{50}: 0.12 mg/ear)	136, 135, 100
498	11-Keto-*β*-boswellic acid	$C_{30}H_{46}O_4$	-	-	Antiinflammatory	Active (ID_{50}: 0.07 mg/ear)	135, 100

499	Acetyl-11-keto-*β*-boswellic acid	$C_{32}H_{48}O_5$	-	-	Antiinflammatory	Active (ID_{50}: 0.08 mg/ear)	135
500	Acetyl-11*α*-methoxy-*β*-boswellic acid	$C_{33}H_{52}O_5$	-	-	Antiinflammatory	Active (ID_{50}: 0.49 mg/ear)	88,100
501	3*α*-Hydroxy-urs-9,12-diene-24-oic acid	$C_{30}H_{46}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.27 mg/ear)	135, 100
502	3*α*-Acetyl-9,11-dehydro-*β*-boswellic acid	$C_{32}H_{48}O_4$	-	-	Antiinflammatory	Active (ID_{50}: 02. mg/ear)	137, 100
503	Olibanumol K	$C_{31}H_{50}O_2$	$[\alpha]^{27}_D$ +16.2 (*c* 0.30, MeOH)	-	-	-	130
504	3-*epi*-*α*-Amyrin				-	-	130
505	Olibanumol L	$C_{32}H_{52}O_3$	$[\alpha]^{28}_D$ +14.5 (*c* 1.0, MeOH)	-	-	-	130
506	Olibanumol M	$C_{31}H_{52}O_2$	$[\alpha]^{27}_D$ +21.0 (*c* 1.0, MeOH)	-	-	-	130
507	Olibanumol N	$C_{33}H_{54}O_3$	$[\alpha]^{22}_D$ +1.1 (*c* 1.0, MeOH)	-	-	-	130
508	Urs-9(11),12-dien-3b-ol	$C_{30}H_{48}O$	-	-	-	-	130
509	Neoilexonol	$C_{30}H_{48}O_2$	-	-	-	-	130, 96
510	Neoilexonol acetate	$C_{32}H_{50}O_3$	-	-	-	-	130
511	Urs-12-ene-3*β*,11*α*-diol	$C_{30}H_{50}O_2$	-	-	-	-	130
512	Urs-12-ene-3*α*,11*α*-diol	$C_{30}H_{50}O_2$	-	-	-	-	130
513	3*α*-Acetoxyurs-5:12-dien-24-oic acid	$C_{32}H_{48}O_4$	$[\alpha]^{30}_D$ –17.4 (*c* 0.07, $CDCl_3$)	-	-	-	132
514	1*β*,3*β*,11*α*-Trihydroxy-urs-12-ene	$C_{30}H_{48}O_3$	-	-	-	-	96
515	3-*epi*-Neoilexonol (*α*-amyrenonol)	$C_{30}H_{48}O_2$	-	-	Antiplasmodial NF-54 strain	Active (IC_{50}: 9.9 µM)	94
516	11-Ursene-2-diketone	$C_{30}H_{46}O_2$	-	-	*α*-Glucosidase inhibitory	Inactive	101
517	Uvaol	$C_{30}H_{50}O_2$	-	-	Antiplasmodial NF-54 strain	Inactive	94
518	*β*-Boswellic aldehyde	$C_{30}H_{48}O_2$	-	-	Antiplasmodial NF-54 strain	Active (IC50: 15.0 µM)	94
519	*α*-Amyrin	$C_{30}H_{50}O$	-	-	*α*-Glucosidase inhibitory	Inactive	101
520	*α*-Amyrenone	$C_{30}H_{48}O$	-	-	*α*-Glucosidase inhibitory	Inactive	101
521	*α*-Amyrine acetate	$C_{32}H_{50}O_2$	-	-	*α*-Glucosidase	Inactive	101

					inhibitory		
522	3*α*-Hydroxyurs-5:19-diene	$C_{30}H_{48}O$	$[\alpha]^{25}_D$ +27.0 (*c* 0.13, CH_3OH)	MeOH: 220 (3.87) nm	*α*-Glucosidase inhibitory	Active (IC_{50}: 15.0 μM)	101
523	Boswellicarterin A	$C_{32}H_{48}O_6$	$[\alpha]^{20}_D$ +26.1 (*c* 0.5, CH_3OH)	MeOH: 247 (1.35) nm	Cytotoxicity HepG3 cells A549 cells MCF-7 cells	 Inactive Inactive Inactive	127
524	Boswellicarterin B	$C_{32}H_{48}O_6$	$[\alpha]^{20}_D$ +43.4 (*c* 0.5, CH_3OH)	MeOH: 250 (2.05) nm	Cytotoxicity HepG2 cells A549 cells MCF-7 cells	 Moderate active Inactive Inactive	127
525	Boswellicarterin C	$C_{32}H_{48}O_6$	$[\alpha]^{20}_D$ +83.0 (*c* 0.5, CH_3OH)	MeOH: 257 (2.07) nm	Cytotoxicity HepG2 cells A549 cells MCF-7 cells	 Moderate active Inactive Inactive	115
526	21*β*-Hydroxy-3-acetyl-11-keto-*β*-boswellic acid	$C_{32}H_{48}O_6$	$[\alpha]^{20}_D$ +47.1 (*c* 0.5, CH_3OH)	MeOH: 247 (1.24) nm	-	-	138
527	4(23)-Dihydroroburic acid (3,4-*seco*-urs-12-en-3-oic acid)	$C_{30}H_{50}O_2$	-	-	-	-	138
	Oleanane-type triterpenoids						
528	3*α*-Hydroxy-olean-12-en-24-oic acid (*α*-boswellic acid)	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.24 mg/ear)	136, 139, 100
529	3*α*-Acetyl-*α*-boswellic acid	$C_{32}H_{50}O_4$	-	205 nm	Antiinflammatory	Active (ID_{50}: 0.09 mg/ear)	136, 137, 100
530	3*α*-Acetyl-9,11-dehydro-*α*-boswellic acid	$C_{32}H_{48}O_4$	-	283 nm	-	-	137
531	Olibanumol E	$C_{31}H_{52}O_2$	$[\alpha]^{22}_D$ +7.7 (*c* 1.0, MeOH)	-	Antiinflammatory	Active	125
532	6*R*,7*R*-Epoxy-1-oleanen-3-ol	$C_{30}H_{48}O_2$	$[\alpha]^{22}_D$ +34.0 (*c* 1.0, $CHCl_3$)	-	Antiinflammatory	Active	96
533	6*R*,7*R*-Epoxy-1-oleanen-3-one	$C_{30}H_{46}O_2$	$[\alpha]^{25}_D$ –10.0 (*c* 1.0, $CHCl_3$)	-	-	-	96
534	Oleanolic acid	$C_{30}H_{48}O_3$	-	-	Antiplasmodial NF-54 strain	Active (IC_{50}: 8.3 μM)	94
	Tirucallane-type triterpenoids						
535	20,22-Epoxyeupha-24-ene-3-one	$C_{30}H_{48}O_2$	$[\alpha]^{25}_D$ +18.0 (*c* 1.0,	-	-	-	140

			$CDCl_3$)				
536	*α*-Elemolic acid	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.1 mg/ear)	100
537	Elemonic acid	$C_{30}H_{46}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.24 mg/ear)	100
538	3*α*-Acetoxy-tirucall-8,24-dien-21-oic acid	$C_{32}H_{50}O_4$	-	-	-	-	96
539	3*α*-Hydroxytirucalla-7,24-dien-21-oic acid	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.06 mg/ear)	100
540	3*α*-Acetoxytirucalla-7,24-dien-21-oic acid	$C_{32}H_{50}O_4$	-	-	Antiinflammatory	Active (ID_{50}: 0.06 mg/ear)	100
541	3*ϭ*-Hydroxytirucalla-8,24-dien-21-oic acid	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Active (ID_{50}: 0.05 mg/ear)	100
542	Boscartene A	$C_{32}H_{48}O_6$	$[\alpha]^{20}_D$ –20.4 (*c* 0.4, $CHCl_3$)	$CHCl_3$: 255 (4.29) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
543	Boscartene B	$C_{30}H_{46}O_4$	$[\alpha]^{20}_D$ –111.7 (*c* 0.2, $CHCl_3$)	$CHCl_3$: 244 (3.87) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
544	Boscartene C	$C_{30}H_{44}O_4$	$[\alpha]^{20}_D$ +8.2 (*c* 0.6, $CHCl_3$)	$CHCl_3$: 244 (3.87) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
545	Boscartene D	$C_{30}H_{44}O_4$	$[\alpha]^{20}_D$ –17.8 (*c* 0.2, $CHCl_3$)	$CHCl_3$: 254 (3.83) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Moderate active (at 10 μM)	
546	Boscartene J	$C_{30}H_{42}O_5$	$[\alpha]^{20}_D$ +37.3 (*c* 0.25, $CHCl_3$)	$CHCl_3$: 252 (3.86) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
547	Boscartene E	$C_{30}H_{42}O_5$	$[\alpha]^{20}_D$ –27.2 (*c* 0.2, $CHCl_3$)	$CHCl_3$: 234 (3.16), 253 (3.43) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
548	Boscartene F	$C_{30}H_{44}O_4$	$[\alpha]^{20}_D$ –10.0 (*c* 0.25, $CHCl_3$)	$CHCl_3$: 233 (2.78), 254.5 (3.05) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
549	Boscartene H	$C_{30}H_{42}O_5$	$[\alpha]^{20}_D$ +5.55 (*c* 0.45, $CHCl_3$)	$CHCl_3$: 252 (3.69) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	

550	Boscartene I	$C_{30}H_{42}O_5$	$[\alpha]^{20}_D$ +37.3 (*c* 0.25, $CHCl_3$)	$CHCl_3$: 252 (3.86) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
551	3-Oxo-tirucalla-8,24-dien-21,23-olide (isoflindissone lactone)	$C_{30}H_{44}O_3$	$[\alpha]^{20}_D$ +3.3 (*c* 0.1, $CHCl_3$)	$CHCl_3$: 244 (2.69) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Inactive (at 10 μM)	
552	Boscartene G	$C_{30}H_{44}O_4$	$[\alpha]^{20}_D$ –14.4 (*c* 0.20, $CHCl_3$)	$CHCl_3$: 249 (4.13) nm	Antiinflammatory	Inactive (at 10 μM)	134
					Hepatoprotective HL-7702 cells	Moderate active (at 10 μM)	
553	5*α*-Tirucalla-8,24-dien-3*α*-ol	$C_{30}H_{50}O$	-	-	Antiplasmodial NF-54 strain	Inactive	94
554	Isoflindissol lactone	$C_{30}H_{48}O_3$	-	-	Antiplasmodial NF-54 strain	Active (IC_{50}: 4.2 μM)	94
555	*rel*-(8*R*,9*S*,20*R*)-Tirucall-24-ene-3*β*,20-diol	$C_{30}H_{52}O_2$	-	-	Antiplasmodial NF-54 strain	Active (IC_{50}: 18.0 μM)	94
556	*rel*-(3*α*,8*R*,9*S*,20*R*,24*S*)-20,24-Epoxytirucalla-3,25-diol	$C_{30}H_{52}O_3$	-	-	Antiplasmodial NF-54 strain	Inactive	94
557	Boswellicarin A	$C_{30}H_{46}O_4$	$[\alpha]^{20}_D$ +3.3 (*c* 0.5, CH_3OH)	MeOH: 244 (1.28) nm	Cytotoxicity HepG3 cells A549 cells MCF-7 cells	 Inactive Inactive Inactive	127
558	3*α*,11*β*-Dihydroxy-7-oxo-tirucalla-8,24-dien-21-oic acid	$C_{30}H_{46}O_5$	$[\alpha]^{20}_D$ –31.2 (*c* 0.14, MeOH)	-	Antiinflammatory BV-2 cells	Inactive	141
559	11*β*-Hydroxy-3,7-dioxo-tirucalla-8,24-dien-21-oic acid	$C_{30}H_{44}O_5$	$[\alpha]^{20}_D$ –50.4 (*c* 0.60, MeOH)	-	Antiinflammatory BV-2 cells	Moderate active (IC_{50}: 24.0 μM)	141
560	24*R*,25-Dihydroxy-3-oxo-tirucalla-8-en-21-oic acid	$C_{30}H_{48}O_5$	$[\alpha]^{20}_D$ –30.0 (*c* 0.11, MeOH)	-	Antiinflammatory BV-2 cells	Moderate active (IC_{50}: 20.0 μM)	141
561	24*R*,25-Dihydoxy-3-oxo-tirucalla-7,9(11)-dien-21-oic acid	$C_{30}H_{45}O_5$	$[\alpha]^{20}_D$ –21.9 (*c* 0.12, MeOH)	-	Antiinflammatory BV-2 cells	Inactive	141
562	2,3-*seco*-Tirucalla-8,24-dien-2,3,21-trioic acid	$C_{30}H_{46}O_6$	$[\alpha]^{20}_D$ –9.2 (*c* 0.12, MeOH)	-	Antiinflammatory BV-2 cells	Moderate active (IC_{50}: 46.7 μM)	141
563	23*S*-Hydroxy-2,3-*seco*-tirucalla-8,24-dien-2,3,21-trioic acid	$C_{30}H_{43}O_6$	$[\alpha]^{20}_D$ –14.5 (*c* 0.1, MeOH)	-	Antiinflammatory BV-2 cells	Inactive	141
564	7*α*-Hydroxy-3,11-dioxo-tirucalla-8,24-dien-21-oic acid	$C_{30}H_{44}O_5$	$[\alpha]^{20}_D$ +26.4 (*c* 1.0, MeOH)	MeOH: 250 (1.16) nm	-	-	138
565	Cartirucol A	$C_{30}H_{44}O_5$	-	-	-	-	142
Miscellaneous structures							

566	5′,6′-Epoxytridecanyl-1-[4′(5′),9′(10′)-ditetradecen], 13-[12″(13″)-pentadecen]-dioate	$C_{42}H_{74}O_5$	-	-	-	-	140
567	Heptacosanoic acid	$C_{27}H_{54}O_2$	-	-	*α*-Glucosidase inhibition	Active IC_{50}: 41.1 µM	101
568	Heneicosanoic acid propyl ester	$C_{26}H_{52}O_2$	-	-	*α*-Glucosidase inhibition	Active IC_{50}: 80.3 µM	101
569	Methyleugenol	$C_{11}H_{14}O_2$	-	-	Antiplasmodial NF-54 strain	Moderate activity	94
570	*p*-Methoxycinnamaldehyde	$C_{10}H_{10}O_2$	-	-	Antiplasmodial NF-54 strain	Moderate activity	94
571	Carthamine	$C_{15}H_{12}O_6$	-	-	-	-	142
572	Pinoresinol	$C_{20}H_{22}O_6$	-	-	-	-	142

Table S3 Physicochemical properties, and biological activities of compounds derived from *Garcinia* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV λ_{max} (logε)	Biological Activity	Activity status	Ref.
Prenylated caged xanthones							
573	Gambogic acid	$C_{38}H_{44}O_8$	$[\alpha]^{20}_D$ –510 (*c* 0.1, $CHCl_3$)	MeOH: 290 (4.24), 360 (4.18) nm	Cytotoxicity KB cells KB-V1 cells A549 cells HCT-116 cells SK-BR-3 cells HepG2 cells	 Active Active Active Active Active Active	148,149, 150,151
574	Epigambogic acid	$C_{38}H_{44}O_8$	-	-	-	-	150
575	Isogambogic acid	$C_{38}H_{44}O_8$	$[\alpha]^{20}_D$ –408 (*c* 0.1, $CHCl_3$)	MeOH: 290 (4.24), 359 (4.18) nm	Cytotoxicity KB cells KB-V1 cells K562 cells A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active Active Active Active	148,152, 153,150
576	*epi*-Isogambogic acid	$C_{38}H_{44}O_8$	-	-	-	-	150
577	Isomorellinol	$C_{33}H_{38}O_7$	$[\alpha]^{20}_D$ –332 (*c*	MeOH: 232 (4.21), 288	Cytotoxicity		149,152

			0.125, $CHCl_3$)	(4.20), 358 (4.09) nm	KB cells KB-V1 cells K562 cells	Active Active Active	
578	Gambogin	$C_{38}H_{46}O_6$	**Mixture:** $[\alpha]^{27}_D$ –360 (*c* 0.1, $CHCl_3$)	EtOH: 362 (4.10), 292 (4.21), 283 (4.18) nm	Cytotoxicity HeLa cells HEL cells	 Active Active	154,155
579	Morellin dimethyl acetal	$C_{35}H_{42}O_8$	$[\alpha]^{24}_D$ –405.0 (*c* 0.1, $CHCl_3$)	EtOH: 361 (3.88), 290 (3.97), 280 (4.00) nm	Cytotoxicity HeLa cells HEL cells	 Active Active	154
580	Isomoreollin B	$C_{34}H_{40}O_8$	$[\alpha]^{24}_D$ –37.0 (*c* 0.1, $CHCl_3$)	EtOH: 362 (3.66), 319 (4.16), 278 (4.55), 269 (4.54) nm	Cytotoxicity HeLa cells HEL cells	 Active Active	154
581	Moreollic acid	$C_{34}H_{40}O_9$	$[\alpha]^{27}_D$ –31 (*c* 0.1, $CHCl_3$)	EtOH: 365 (3.47), 318 (4.00), 277 (4.43), 267 (4.41) nm	Cytotoxicity HeLa cells HEL cells	 Active Active	154
582	Gambogenic acid	$C_{38}H_{46}O_8$	$[\alpha]^{26}_D$ –246 (*c* 0.1, $CHCl_3$)	EtOH: 360 (4.03) nm	Cytotoxicity HeLa cells HEL cells K562 cells	 Inactive Inactive Active	154,152, 149
583	Gambogenin	$C_{38}H_{46}O_7$	$[\alpha]^{27}_D$ –440 (*c* 0.1, $CHCl_3$)	EtOH: 362 (4.22) nm	Cytotoxicity HeLa cells HEL cells A549 cells HCT-116 cells MDAMB-231 cells	 Inactive Inactive Active Active Active	153,154
584	Isogambogenin	$C_{38}H_{46}O_7$	$[\alpha]^{24}_D$ –425 (*c* 0.1, $CHCl_3$)	EtOH: 361 (4.19) nm	Cytotoxicity HeLa cells HEL cells	 Inactive Inactive	154
585	Desoxygambogenin	$C_{38}H_{48}O_6$	$[\alpha]^{26}_D$ –152 (*c* 0.1, $CHCl_3$)	EtOH: 358 (4.10) nm	Cytotoxicity HeLa cells HEL cells K562 cells	 Inactive Inactive Active	154,152, 149
586	Gambogenin dimethyl acetal	$C_{40}H_{52}O_8$	$[\alpha]^{27}_D$ –295 (*c* 0.1, $CHCl_3$)	EtOH: 358 (4.01), 277 (3.73), 263 (3.73) nm	Cytotoxicity HeLa cells HEL cells	 Inactive Inactive	154
587	Gambogellic acid	$C_{38}H_{44}O_8$	$[\alpha]^{27}_D$ –349 (*c* 0.1, $CHCl_3$)	EtOH: 358 (4.25) nm	Cytotoxicity HeLa cells HEL cells	 Inactive Inactive	153,154

					A549 cells HCT-116 cells MDAMB-231 cells	Active Active Active	
588	Hanburin	$C_{33}H_{40}O_6$	$[\alpha]^{24}_D$ –199 .0 (*c* 0.1, $CHCl_3$)	EtOH: 358 (3.87), 279 (3.50), 267 (3.57) nm	Cytotoxicity HeLa cells HEL cells A549 cells HCT-116 cells SK-BR-3 cells HepG2 cells	 Inactive Inactive Active Active Active Active	154,149
589	Isomorellin	$C_{33}H_{36}O_7$	-	-	Cytotoxicity HeLa cells HEL cells	 Inactive Inactive	154
590	Morellic acid	$C_{33}H_{36}O_8$	-	-	Cytotoxicity HeLa cells HEL cells K562 cells	 Inactive Inactive Active	154
591	Desoxymorellin	$C_{33}H_{38}O_6$	-	-	-	-	154
592	30-Hydroxygambogic acid	$C_{38}H_{44}O_9$	$[\alpha]^{28}_D$ –500.6 (*c* 0.314, $CHCl_3$)	-	Cytotoxicity K562 cells	 Active	156
593	30-Hydroxyepigambogic acid	$C_{38}H_{44}O_9$	$[\alpha]^{28}_D$ –405.6 (*c* 0.288, $CHCl_3$)	-	Cytotoxicity K562 cells	 Active	156
594	Gaudichaudic acid	$C_{33}H_{38}O_8$	$[\alpha]^{28}_D$ –535.0 (*c* 0.065, $CHCl_3$)	-	Cytotoxicity K562 cells	 Active	157
595	Isogambogenic acid	$C_{38}H_{46}O_8$	$[\alpha]^{28}_D$ –488.0 (*c* 0.29, $CHCl_3$)	MeOH: 292, 359 nm	Cytotoxicity HL-60 cells SMMC-7721 cells BGC-83 cells A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active Active Active Active	157,153, 160
596	Deoxygaudichaudione A	$C_{33}H_{40}O_6$	-	-	Cytotoxicity K562 cells A549 cells HCT-116 cells SK-BR-3 cells HepG2 cells	 Active Active Active Active Active	157,149
597	Gambogoic acid A	$C_{39}H_{48}O_9$	-	-	Cytotoxicity		157

					K562 cells	Active	
598	Gambogoic acid B	$C_{40}H_{50}O_9$	-	-	-	-	157
599	Isomorellic acid	$C_{33}H_{36}O_8$	-	-	Cytotoxicity K562 cells A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active Active	157,153
600	Gambogic aldehyde	$C_{38}H_{44}O_7$	$[\alpha]^{20}_D$ –74.0 (*c* 0.1, $CHCl_3$)	-	Cytotoxicity P388 cells P388/ADR cells	Active IC_{50}: 0.243 μM IC_{50}: 7.60 μM	158
601	Gambospiroene	$C_{37}H_{46}O_7$	$[\alpha]^{20}_D$ +36.0 (*c* 0.1, $CHCl_3$)	MeOH: 351 (3.69), 307 (4.27) nm	Cytotoxicity HeLa cells	 Active	150
602	Methyl 8,8a-dihydromorellate	$C_{34}H_{40}O_8$	$[\alpha]^{20}_D$ –49.0 (*c* 0.1, $CHCl_3$)	MeOH: 366 (3.25), 314 (3.82), 302 (3.77), 275 (4.32), 266 (4.29) nm	Cytotoxicity HeLa cells	 Inactive	150
603	3-*O*-Geranylforbesione	$C_{38}H_{48}O_6$	$[\alpha]^{20}_D$ –422.0 (*c* 0.1, $CHCl_3$)	MeOH: 351 (4.29), 212 (4.74) nm	Cytotoxicity HeLa cells	 Active	150
604	Gambogefic acid	$C_{38}H_{44}O_8$	$[\alpha]^{20}_D$ –265 (*c* 0.1, $CHCl_3$)	MeOH: 361 (4.25), 214 (4.71) nm	Cytotoxicity HeLa cells	 Active	150
605	7-Methoxygambogellic acid	$C_{39}H_{46}O_9$	$[\alpha]^{20}_D$ –307.0 (*c* 0.1, $CHCl_3$)	MeOH: 364 (4.15), 215 (4.45) nm	Cytotoxicity HeLa cells	 Active	150
606	7-Methoxygambogic acid	$C_{39}H_{46}O_9$	$[\alpha]^{20}_D$ –535.0 (*c* 0.085, $CHCl_3$)	MeOH: 365 (4.41), 290 (4.45) nm	Cytotoxicity HeLa cells	 Active	150
607	7-Methoxyepigambogic acid	$C_{39}H_{46}O_9$	$[\alpha]^{20}_D$ –576.0 (*c* 0.11, $CHCl_3$)	MeOH: 365 (4.35), 290 (4.41) nm	Cytotoxicity HeLa cells	 Active	150
608	8,8a-Dihydro-8-hydroxymorellic acid	$C_{33}H_{38}O_9$	$[\alpha]^{20}_D$ –34.0 (*c* 0.1, $CHCl_3$)	MeOH: 364 (3.55), 316 (4.12), 276 (4.61), 266 (4.58) nm	Cytotoxicity HeLa cells	 Active	150
609	8,8a-Dihydro-8-hydroxygambogenic acid	$C_{38}H_{48}O_9$	$[\alpha]^{20}_D$ –67.0 (*c* 0.11, $CHCl_3$)	MeOH: 351 (3.87), 298 (4.46), 203 (4.90) nm	Cytotoxicity HeLa cells A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active Active	150,153
610	Oxygambogic acid	$C_{38}H_{44}O_9$	$[\alpha]^{23}_D$ –337 (*c* 0.095, $CHCl_3$)	MeOH: 358 (4.09), 292 (4.17), 204 (4.41) nm	Cytotoxicity HeLa cells	 Active	150
611	Gambogenific acid	$C_{38}H_{46}O_9$	$[\alpha]^{23}_D$ –402.0 (*c* 0.095, $CHCl_3$)	MeOH: 358 (4.06), 204 (4.46) nm	Cytotoxicity HeLa cells	 Active	150
612	7-Methoxyisomorellinol	$C_{34}H_{40}O_8$	$[\alpha]^{23}_D$ –416.0 (*c*	MeOH: 358 (3.94), 288	Cytotoxicity		150

			0.090, $CHCl_3$)	(4.05), 227 (4.07) nm	HeLa cells	Active	
613	8,8a-Dihydro-8-hydroxygambogic acid	$C_{38}H_{46}O_9$	$[\alpha]^{24}_D$ –77.0 (*c* 0.090, $CHCl_3$)	MeOH: 354 (3.59), 315 (4.04), 277 (4.47), 268 (4.42), 204 (4.90) nm	Cytotoxicity HeLa cells	 Active	150
614	8,8a-Dihydro-8-hydroxygambogic acid isomer	$C_{38}H_{46}O_9$	$[\alpha]^{24}_D$ +4.0 (*c* 0.1, $CHCl_3$)	MeOH: 358 (3.53), 316 (3.99), 277 (4.36), 268 (4.31), 204 (4.39) nm	Cytotoxicity HeLa cells	 Active	150
615	Gamboketanol	$C_{37}H_{46}O_7$	$[\alpha]^{26}_D$ –4.0 (*c* 0.106, $CHCl_3$)	MeOH: 204 (4.41), 340 (4.07) nm	Cytotoxicity HeLa cells	Active IC_{50}: 3.82 μM	159
616	Gambogefic acid A	$C_{38}H_{46}O_9$	$[\alpha]^{26}_D$ –611.0 (*c* 0.095, $CHCl_3$)	MeOH: 215 (4.58), 361 (4.20) nm	Cytotoxicity HeLa cells	Active IC_{50}: 2.11 μM	159
617	Gambogellic acid A	$C_{38}H_{44}O_9$	$[\alpha]^{26}_D$ –344.0 (*c* 0.09, $CHCl_3$)	MeOH: 216 (4.59), 361 (4.21) nm	Cytotoxicity HeLa cells	Active IC_{50}: 1.73 μM	159
618	Desoxymorellinin	$C_{33}H_{40}O_6$	$[\alpha]^{30}_D$ –108.0 (*c* 0.08, MeOH)	MeOH: 358 nm	Cytotoxicity HL-60 cells SMMC-7721 cells BGC-83 cells	 Active Active Active	160
619	10-Methoxygambogenic acid	$C_{39}H_{50}O_9$	$[\alpha]^{30}_D$ –142.0 (*c* 0.17, MeOH)	MeOH: 296 nm	Cytotoxicity HL-60 cells SMMC-7721 cells BGC-83 cells	 Active Active Active	160
620	10-Methoxygambogic acid	$C_{39}H_{48}O_9$	$[\alpha]^{30}_D$ –140.0 (*c* 1.0, MeOH)	MeOH: 278, 318 nm	Cytotoxicity HL-60 cells SMMC-7721 cells BGC-83 cells	 Active Active Active	160
621	10-Ethoxy gambogic acid	$C_{40}H_{50}O_9$	-	MeOH: 279, 318 nm	Cytotoxicity HL-60 cells SMMC-7721 cells BGC-83 cells	 Active Active Active	160
622	7-Methoxydesoxymorellin	$C_{34}H_{40}O_7$	$[\alpha]^{30}_D$ –442.0 (*c* 0.1, $CHCl_3$)	EtOH: 232 (4.23), 288 (4.22), 361 (4.09) nm	Cytotoxicity Mammalian cells	 Active	161
623	2-Isoprenylforbesione	$C_{33}H_{40}O_6$	$[\alpha]^{29}_D$ –318.0 (*c* 0.1, $CHCl_3$)	EtOH: 358 (4.94) nm	Cytotoxicity Mammalian cells	 Active	161
624	8,8a-Epoxymorellic acid	$C_{33}H_{36}O_9$	$[\alpha]^{29}_D$ –138.0 (*c* 0.1, $CHCl_3$)	EtOH: 273 (4.58), 281 (4.59), 329 (4.37), 363 (1.76) nm	Cytotoxicity Mammalian cells Anti-HIV	 Active Active	161
625	Garcinolic acid	$C_{39}H_{48}O_{10}$	$[\alpha]^{20}_D$ –2.68 (*c* 0.25, $CHCl_3$)	MeOH: 207 (4.65), 268 (4.21), 363 (3.41) nm	Cytotoxicity A549 cells	 Active	149

					HCT-116 cells SK-BR-3 cells HepG2 cells	Active Active Active	
626	10*α*-Ethoxy-9,10-dihydromorellic acid	$C_{35}H_{42}O_9$	$[\alpha]^{20}_D$ –0.8 (*c* 0.05, $CHCl_3$)	MeOH: 200 (4.61), 267 (4.51), 275 (4.53), 316 (4.12), 363 (3.58) nm	Cytotoxicity A549 cells HCT-116 cells SK-BR-3 cells HepG2 cells	 Active Active Active Active	149
627	10*α*-Ethoxy-9,10-dihydrogambogenic acid	$C_{40}H_{52}O_9$	$[\alpha]^{23}_D$ –1.5 (*c* 0.1, $CHCl_3$)	MeOH: 205 (4.64), 299 (4.21), 346 (3.61) nm	Cytotoxicity A549 cells HCT-116 cells SK-BR-3 cells HepG2 cells	 Active Active Active Active	149
628	22,23-Dihydroxydihydrogambogenic acid	$C_{38}H_{48}O_{10}$	$[\alpha]^{20}_D$ –3.2 (*c* 0.1, CH_3OH)	MeOH: 343 (1.95), 222 (3.26), 202 (3.84) nm	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active	153
629	12-Hydroxygambogefic acid A	$C_{38}H_{46}O_{10}$	$[\alpha]^{20}_D$ –2.43 (*c* 0.1, CH_3OH)	MeOH: 371 (3.75), 220 (3.82) nm	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active	153
630	Hanburixanthone	$C_{33}H_{40}O_6$	-	MeOH: 207 (4.54), 254 (4.55), 329 (4.34) nm	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Inactive Inactive Inactive	153
631	Gambogic acid B	$C_{40}H_{50}O_9$	$[\alpha]^{20}_D$ –90.9 (*c* 0.335, MeOH)	-	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active	153
632	Epigambogic acid B	$C_{40}H_{50}O_9$	$[\alpha]^{20}_D$ –6.9 (*c* 0.2, MeOH)	-	*α*-Glucosidase inhibitory	Active	155
633	Formoxanthone J	C38H46O10	-	-	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Active Active Active	153
634	Epiformoxanthone J	$C_{38}H_{46}O_{10}$	-	-	Cytotoxicity A549 cells HCT-116 cells	 Active Active	153

					MDAMB-231 cells	Active	
635	Dihydroisomorellin	$C_{17}H_{21}NO_3$	-	-	Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Inactive Inactive Inactive	153
636	16,17-Dihydroxygambogenic acid	$C_{38}H_{48}O_{10}$	-	-	Cytoprotective effects	Inactive	153
					Cytotoxicity A549 cells HCT-116 cells MDAMB-231 cells	 Inactive Inactive Inactive	
637	Epigambogic acid A	$C_{39}H_{48}O_9$	$[\alpha]^{20}_D$ –13.8 (*c* 0.204, MeOH)	-	*α*-Glucosidase inhibitory	Active	155
638	Gambogic acid A	$C_{39}H_{48}O_9$	$[\alpha]^{20}_D$ –96.1 (*c* 0.2, MeOH)	-	*α*-Glucosidase inhibitory	Inactive	155
639	10*α*-Butoxy gambogic acid	$C_{42}H_{54}O_9$	$[\alpha]^{20}_D$ –6.6 (*c* 0.187, MeOH)	-	-	-	155
640	*epi*-Gambogic acid C	$C_{40}H_{50}O_9$	$[\alpha]^{20}_D$ +94.6 (*c* 0.193, MeOH)	-	-	-	155
641	Gambogic acid C	$C_{40}H_{50}O_9$	$[\alpha]^{20}_D$ +25.4 (*c* 0.215, MeOH)	-	Cytoprotective effects	Inactive	155
Triterpenoids and steroids							
642	2*α*-Hydroxy-3*β*-*O*-acetyllup-20(29)-en-28-oic acid (3- acetoxyalphitolic acid)	$C_{32}H_{50}O_5$	$[\alpha]^{20}_D$ –16 (*c* 0.1, C_5H_5N)	-	Antiinflammatory	Moderate active	162,163
					Cytotoxicity HL-60 cells NB4 cells U937 cells K-562 cells	 Moderate active Moderate active Moderate active Moderate active	
					Anti-HIV-1	Active (IC_{50}: 19.8 μg/mL)	
643	3-*O*-(4′-*O*-Acetyl)-*α*-*L*-Arabinopyranosyloleanolic acid	$C_{37}H_{58}O_8$	$[\alpha]^{20}_D$ +1.9 (*c* 0.1, C_5H_5N)	-	Cytotoxicity HL-60 cells NB4 cells U937 cells K-562 cells	Active IC_{50}: 2.45 μM IC_{50}: 2.69 μM IC_{50}: 2.42 μM IC_{50}: 4.15 μM	162
644	Betulinic acid	$C_{30}H_{48}O_3$	-	-	Antiinflammatory	Moderate active	162,163

					Anti-HIV-1	Active (IC_{50}: 27.2 µg/mL)	
645	Messagenic acid	$C_{32}H_{50}O_5$	-	-	-	-	162
646	2*α*-Acetoxy-3*β*-hydroxy-19*β*-hydrogen-lup-20(29)-en-28-oic acid (2-acetoxyalphitolic acid)	$C_{32}H_{50}O_5$	$[\alpha]^{30}_D$ −26.0 (*c* 0.1, $CHCl_3$)	-	Anti-HIV-1	Moderate (IC_{50}: >125 µg/mL)	163
647	Betulin	$C_{30}H_{50}O_2$	-	-	Antiinflammatory	Moderate active	163
					Anti-HIV-1	Active (IC_{50}: 11.6 µg/mL)	
648	Stimasterol-3-*O*-*β*-*D*-glucopyranoside	$C_{35}H_{58}O_6$	-	-	Antiinflammatory	Moderate active	163
649	2-*O*-Acetyl-3-*O*-(4′-*O*-acetyl)-*α*-*L*-arabinopyranosylmaslinic acid	$C_{39}H_{60}O_{10}$	$[\alpha]^{22}_D$ +31.0 (*c* 0.21, MeOH)	-	-	-	164
650	2-*O*-Acetyl-3-*O*-(3′-*O*-acetyl)-*α*-L-arabinopyranosylmaslinic acid	$C_{39}H_{60}O_{10}$	$[\alpha]^{22}_D$ +35.0 (*c* 0.2, MeOH)	-	-	-	164
651	2-*O*-Acetyl-3-*O*-(3′,4′-*O*-diacetyl)-*α*-L-arabinopyranosylmaslinic acid	$C_{41}H_{62}O_{11}$	$[\alpha]^{26}_D$ +16.4 (*c* 0.2, MeOH)	-	-	-	164
652	3-*O*-(3′-*O*-Acetyl)-*α*-L-Arabinopyranosyloleanolic acid	$C_{37}H_{58}O_8$	$[\alpha]^{22}_D$ +43.1 (*c* 0.2, MeOH)	-	-	-	164
653	Maslinic acid	$C_{30}H_{48}O_4$	-	-	-	-	164
654	2-*O*-Acetylmaslinic acid	$C_{32}H_{50}O_5$	-	-	-	-	164
655	3-*O*-Acetylmaslinic acid	$C_{32}H_{50}O_5$	-	-	-	-	164

Table S4 Physicochemical properties, and biological activities of compounds derived from *Dracaena* and *Daemonorops* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV $\lambda_{max}(\log\varepsilon)$	Biological Activity	Activity status	Ref.
Polyphenols							
	Flavanoids						
656	(2*S*)-5-Methoxy-6-methylflavan-7-ol	$C_{17}H_{18}O_3$	$[\alpha]^{20}_D$ −9.25 (*c* 2.1, $CHCl_3$)	276, 285 nm (solvent not indicated)	-	-	174
657	(2*S*)-5-Methoxyflavan-7-ol	$C_{16}H_{16}O_3$	$[\alpha]^{20}_D$ −6.35 (*c* 1.9, $CHCl_3$)	272 nm (solvent not indicated)	-	-	174
658	Nordracorhodin	$C_{16}H_{12}O_3$	-	269, 283, 317, 331, 385, 485, 510 nm (solvent	-	-	174

				not indicated)			
659	(±)-7,4′-Dihydroxy-3′-methoxyflavan	$C_{16}H_{16}O_4$	$[\alpha]^{22}_D$ 0 (*c* 0.2, MeOH)	MeOH+ NaOMe: 220 (4.40), 245 (4.25), 291 (4.00) nm	-	-	175
660	(2*S*)-7,3'-Dihydroxy-4'-methoxyflavan	$C_{16}H_{16}O_4$	$[\alpha]^{24}_D$ −45.5 (*c* 0.3, MeOH)	MeOH: 213 (4.23), 224 (4.18), 282 (3.83)	-	-	175
661	(2*S*)-7-Hydroxyflavan	$C_{15}H_{14}O_2$	-	-	-	-	175
662	7,4′-Dihydroxyflavone	$C_{15}H_{10}O_4$	-	-	-	-	175
663	(2*S*)-3′,7-Dihydroxy-4′-methoxy-8-methylflavan	$C_{17}H_{18}O_4$	-	-	-	-	176
664	(2*S*)-4′,7-Dihydroxy-3′-methoxy-8-methylflavan	$C_{17}H_{18}O_4$	-	-	-	-	176
665	(2*S*)-4′,7-Dihydroxy-8-methylflavan	$C_{16}H_{16}O_3$	-	-	-	-	176
666	(2*S*)-4′,5-Dihydroxy-7-methoxy-8-methylflavan	$C_{17}H_{18}O_4$	-	-	-	-	176
667	7-Hydroxy-4′-methoxyflavone	$C_{16}H_{12}O_4$	-	-	-	-	177
668	6,4′-Dihydroxy-7-methoxy-8-methylflavane	$C_{17}H_{18}O_4$	$[\alpha]^{26}_D$ 0 (*c* 0.2, MeOH)	(MeOH): 207 (2.6), 284 (0.4), 396 (0.006) nm	-	-	178
669	5,4′-Dihydroxy-7-methoxy-6-methylflavane	$C_{17}H_{18}O_4$	-	(MeOH): 211 (3.07), 275 (0.24) nm	-	-	178
670	(2*R*)-4′-Hydroxy-7-methoxy-8-methylflavan	$C_{17}H_{18}O_3$	-	-	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
671	(–)-7-Hydroxy-4′-methoxyflavan	$C_{16}H_{16}O_3$	-	-	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
672	Dammaradienol	$C_{30}H_{50}O$	-	-	Cytotoxicity KB cells HepG2 cells	 Inactive Inactive	180
673	(–)-5-Methoxyflavan-7-ol	C16H16O3	-	-	Cytotoxicity KB cells HepG2 cells	Active IC_{50}: 22.9 µg/mL IC_{50}: 24.0 µg/mL	180
674	5-Methoxy-6-methyl-2-phenyl-7H-chromen-7-one	$C_{17}H_{14}O_3$	-	-	Cytotoxicity KB cells	Active IC_{50}: 36.4 µg/mL	180

					HepG2 cells	IC_{50}: 24.8 μg/mL	
675	Daemonorol D	$C_{17}H_{16}O_3$	-	(MeOH): 316 (3.07), 283 (3.65), 228 (4.26) nm	-	-	181
676	Daemonorol E	$C_{17}H_{18}O_4$	-	(MeOH): 281 (3.83), 230 (4.69) nm	-	-	181
677	Dracoflavylium	$C_{16}H_{12}O_4$	-	-	-	-	182
678	7,4′-Dihydroxy-flavylium	$C_{15}H_{10}O_3$	-	-	-	-	182
679	(2*S*)-5,7-Dihydroxy-4′-methoxy-8-methylflavane	$C_{17}H_{18}O_4$	-	-	-	-	183
680	(2*S*)-7,3′-Dihydroxy-4′-methoxyflavane	$C_{16}H_{16}O_4$	$[\alpha]^{27}_D$ −40.5 (*c* 0.001, MeOH)	-	-	-	183
681	(2*S*)-7,4′-Dihydroxyflavanone	$C_{15}H_{12}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	184
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	
682	Cambodianin D	$C_{18}H_{20}O_4$	$[\alpha]^{20}_D$ −18.5 (*c* 0.5, MeOH)	MeOH: 278 (3.69) nm	Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	185
683	(2*S*)-7,4′-Dihydroxy-6,8-dimethylflavane	$C_{18}H_{20}O_4$	-	-	Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	185
684	6-Methoxy-7-hydroxyflavone	$C_{16}H_{12}O_4$	$[\alpha]^{20}_D$ +0.5 (*c* 0.4, MeOH)	-	Antiinflammatory BV-2 cells	 Active	186
					NQO1 inducing Hepa 1c1c7 cells	 Inactive at 20 μM	
685	7-Hydroxy-6,8-dimethyl-2,5-dimethoxyflavan	$C_{19}H_{22}O_4$	$[\alpha]^{24}_D$ +0 (*c* 0.41, MeOH)	MeOH: 275 (3.03), 206 (4.54) nm	-	-	187
686	7-Hydroxy-8-methyl-2,5-	$C_{18}H_{20}O_4$	$[\alpha]^{24}_D$ +0 (*c*	MeOH: 272	-	-	187

	dimethoxyflavan		0.14, MeOH)	(3.23), 209 (4.57) nm			
687	7-Hydroxy-6-methyl-2,5-dimethoxyflavan	$C_{18}H_{20}O_4$	$[\alpha]^{24}_D$ +0 (*c* 0.25, MeOH)	MeOH: 281 (3.44), 205 (4.67) nm	-	-	187
688	7-Hydroxy-5-methoxy-6-methylfavan	$C_{17}H_{18}O_3$	-	-	-	-	187
689	7-Hydroxy-5-methoxyflavan	$C_{16}H_{16}O_3$	-	-	-	-	187
690	(2*R*)-7,4′-Dihydroxy-5-methoxy-8-methylflavan	$C_{17}H_{18}O_4$	$[\alpha]^{23}_D$ −10 (*c* 0.07, MeOH)	-	Mouse bone marrow-derived mesenchymal stem cell (MSC) Stem cell proliferation	Inactive at 10 μM	188
691	(2*S*)-7,3',4'-Trihydroxy-8-methylflavane	$C_{16}H_{16}O_4$	$[\alpha]^{22}_D$ −30.7 (*c* 0.15, MeOH)	MeOH: 202.1 (0.438)	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
692	(±)-7,4'-Dihydroxy-3'-methoxyflavane	$C_{16}H_{16}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Weak active	
693	(2*R*)-7,4′-Dihydroxy-8-methylflavan	$C_{16}H_{18}O_3$	$[\alpha]^{25}_D$ +79.2 (*c* 0.4, $CHCl_3$)	MeOH: 282.0 (1.84), 204.0 (2.22) nm	Cytotoxicity BEL-7402 cells	 Inactive	190
694	(2*R*)-7,4′-Dihydroxy-6-methylflavan	$C_{16}H_{16}O_3$	$[\alpha]^{25}_D$ +20 (*c* 0.3, MeOH)	MeOH: 202.0 (2.16) nm	Cytotoxicity BEL-7402 cells	Active IC_{50}: 39.22 μM	190
695	(2*S*)-5,4′-Dihydroxy-7-methoxy-6,8-dimethylflavan	$C_{18}H_{20}O_4$	-	-	-	-	190
696	7,3′-Dihydroxy-4′-methoxyflavone	$C_{16}H_{12}O_5$	-	-	Antiinflammatory BV-2 cells	 Active	191
697	7-Hydroxyflavone	$C_{15}H_{10}O_3$	-	-	Antiinflammatory BV-2 cells	 Active	191
698	5,7,4′-Trihydroxy-8-methylflavone	$C_{16}H_{12}O_5$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
699	Apigenin	$C_{15}H_{10}O_5$	-	-	Antiinflammatory BV-2 cells	 Inactive	191

700	(2*R*)-Liquiritigenin	$C_{15}H_{12}O_4$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
701	(2*S*)-Pinocembrin	$C_{15}H_{12}O_4$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
702	7,4′-Dihydroxy-8-methylflavone	$C_{16}H_{12}O_4$	-	-	Antibacterial Methicillin-resistant *S. aureus* (MRSA)	 Active	192
703	(2*S*)-7,4′-Dimethoxy-5-hydroxy-6-methylflavan	$C_{18}H_{20}O_4$	$[\alpha]^{25}_D$ +10 (*c* 0.1, MeOH)	MeOH: 209 (6.78), 279 (2.31) nm	Anti-fungal *Exserohilum turcicum* *Bipolaris maydis* *Curvularia lunata* *Fusarium graminearum*	 Inactive Inactive Inactive Inactive	193
704	Xuejiein D	$C_{16}H_{16}O_4$	$[\alpha]^{25}_D$ –15.4 (*c* 0.02, MeOH)	MeOH: 280 (2.87), 200 (4.06) nm	-	-	194
	Chalcones/chromoes derivatives				-	-	
705	2,4-Dihydroxy-5-methyl-6-methoxychalcone	$C_{19}H_{20}O_4$	-	EtOH: 257, 502 nm	-	-	174
706	2,4-Dihydroxy-6-methoxychalcone	$C_{16}H_{14}O_4$	-	-	-	-	174
707	7-Hydroxy-3-(3-hydroxy-4-methoxybenzyl)chroman	$C_{17}H_{18}O_4$	$[\alpha]^{22}_D$ +27.9 (*c* 0.2, MeOH)	MeOH: 211 (4.17), 223 (3.97), 282 (3.66) nm	-	-	175
708	7-Hydroxy-3-(4-hydroxybenzyl)-8-methoxychroman	$C_{17}H_{18}O_4$	$[\alpha]^{28}_D$ +49.5 (*c* 0.3, $CHCl_3$)	MeOH: 231 (3.40), 278 (3.50) nm	-	-	175
709	3-(4-Hydroxybenzyl)-7,8-methylenedioxychroman	$C_{17}H_{16}O_4$	$[\alpha]^{28}_D$ +45.8 (*c* 0.28, MeOH)	MeOH: 223 (4.17), 277 (3.40) nm	-	-	175
710	7-Hydroxy-3-(4-hydroxybenzyl)chroman	$C_{16}H_{16}O_3$	$[\alpha]^{24}_D$ +59.5 (*c* 0.26, MeOH)	-	-	-	175
711	4-Hydroxy-2-methoxydihydrochalcone	$C_{16}H_{16}O_3$	$[\alpha]^{24}_D$ 0 (*c* 0.3, MeOH)	-	-	-	175
712	4,4′-Dihydroxy-2-methoxydihydrochalcone	$C_{16}H_{16}O_4$	-	-	-	-	175
713	4,4′-Dihydroxy-2′-methoxychalcone	$C_{16}H_{14}O_4$	-	-	-	-	175
714	2,4,4′-Trihydroxydihydrochalcone	$C_{15}H_{14}O_4$	-	EtOH: 220.8 (4.20), 263.2 (3.99), 280.9	-	-	195

				(4.12) nm			
715	3-(4-Hydroxybenzyl)-5,7-dimethoxychroman	$C_{18}H_{20}O_4$	$[\alpha]^{25}_D$ +73.1 (*c* 0.026, $CHCl_3$)	EtOH: 227.2 (3.44), 277.4 (3.72) nm	-	-	195
716	7-Hydroxy-3-(4-hydroxybenzyl)chromone	$C_{16}H_{12}O_4$	-	EtOH: 241.4 (3.45), 249.6 (3.46), 297.6 (3.25), 305.8 (3.20) nm	-	-	195
717	4′-Hydroxy-2,4-dimethoxydihydrochalcone	$C_{17}H_{18}O_4$	-	-	-	-	177
718	4′-Hydroxy-2,4,6-trimethoxydihydrochalcone	$C_{18}H_{20}O_5$	-	--	-	-	177
719	(3*R*)-7,4′-Dihydroxy-5-methoxyhomoisoflavane	$C_{17}H_{18}O_4$	$[\alpha]^{26}_D$ +24.45 (*c* 0.2, MeOH)	MeOH: 209 (2.56), 224 (1.77), 281 (0.54) nm	Mouse bone marrow-derived mesenchymal stem cell (MSC) Stem cell proliferation	Inactive at 10 μM	178, 188
720	7,8-(Methylenedioxy)-4′-hydroxyhomoisoflavane	$C_{17}H_{16}O_4$	-	-	-	-	178
721	(3*R*)-7,4′-Dihydroxyhomoisoflavane	$C_{16}H_{16}O_3$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	178, 189
722	2,6-Dimethoxy-4,4′-dihydroxy-dihydrochalcone	$C_{17}H_{18}O_5$	-	-	-	-	178
723	Cochinchinenone	$C_{17}H_{18}O_6$	-	MeOH: 224 (2.66), 243 (2.73), 281 (2.68) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
724	4,4′,6-Trihydroxy-2-methoxydihydrochalcone	$C_{16}H_{16}O_5$	-	-	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
725	4,6-Dihydroxy-2-methoxy-3-methyldihydrochalcone	$C_{17}H_{18}O_5$	-	MeOH: 204 (4.12), 231 (3.76), 281 (3.25) nm	Cytotoxicity KB cells HepG2 cells	 Inactive Inactive	180
726	(3*R*)-7,4′-Dihydroxy-6-methoxyhomoisoflavane	$C_{17}H_{18}O_4$	$[\alpha]^{25}_D$ +58 (*c* 0.1, MeOH)	MeOH: 230 (4.54), 288 (4.34) nm	Antiinflammatory BV-2 cells	Inactive	196
727	(3*S*)-3,7,4′-Trihydroxy-5-methoxyhomoisoflavanonol	$C_{17}H_{16}O_6$	$[\alpha]^{25}_D$ –58 (*c* 0.1, MeOH)	MeOH: 231 (3.70), 284 (3.92)	Antiinflammatory BV-2 cells	Active IC_{50}: 75.6 μM	196

				nm			
728	Loureiriol	$C_{16}H_{14}O_6$	-	-	Antiinflammatory BV-2 cells	 Inactive	196
729	7,4′-Dihydroxy-5-methoxyhomoisoflavanone	$C_{17}H_{18}O_4$	-	-	Antiinflammatory BV-2 cells	 Inactive	196
730	7,4′-Dihydroxyhomoisoflavanone	$C_{16}H_{16}O_4$	-	-	Antiinflammatory BV-2 cells	Active IC_{50}: 60.3 μM	196
731	5,4′-Dihydroxy-7-methoxyhomoisoflavone	$C_{17}H_{14}O_5$	-	-	Antiinflammatory BV-2 cells	 Inactive	196
732	Daemonorol F	$C_{17}H_{18}O_4$	-	(MeOH): 279 (3.16), 238 (3.98) nm	-	-	181
733	4′-Hydroxy-4,2′-dimethoxy-dihydrochalcone	$C_{17}H_{18}O_4$	-	-	-	-	197
734	Balanophonin	$C_{20}H_{20}O_6$	-	-	-	-	183
735	(3*S*)-7,4′-Dihydroxy-8-methoxyhomoisoflavane	$C_{17}H_{18}O_4$	-	-	-	-	183
736	4,4′-Dihydroxy-2,3′-dimethoxydihydrochalcone	$C_{17}H_{18}O_5$	-	MeOH: 305, 296, 247 nm	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	184
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	
737	4,2′,4′-Trihydroxychalcone	$C_{15}H_{12}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	184
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	
738	(3*R*)-7,4′-Dihydrohomoisoflavanone	$C_{16}H_{14}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Active Active Active	184

					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	Active Active	
739	4-Hydroxy-2,4′-dimethoxydihydrochalcone	$C_{17}H_{18}O_4$	-	MeOH: 209 (3.35), 218 (3.33), 276 (3.34) nm	Antiinflammatory BV-2 cells	Inactive	198
740	3,4′-Dihydroxy-2,4,6-trimethoxydihydrochalcone	$C_{18}H_{20}O_6$	-	MeOH: 211(3.43), 281(3.30) nm	Antiinflammatory BV-2 cells	Inactive	198
741	Loureirin A	$C_{17}H_{18}O_4$	-	-	Antiinflammatory BV-2 cells	Inactive	198
742	Loureirin B	$C_{18}H_{20}O_5$	-	-	Antiinflammatory BV-2 cells	Inactive	198
743	2,4′-Dihydroxy-4,6-dimethoxydihydrochalcone	$C_{17}H_{18}O_5$	-	-	Antiinflammatory BV-2 cells	Inactive	198
744	Loureirin C	$C_{16}H_{16}O_4$	-	-	Antiinflammatory BV-2 cells	Inactive	198
745	Loureirin D	$C_{16}H_{16}O_5$	-	-	Antiinflammatory BV-2 cells	Mild active IC_{50}: 50.3 μM	198
746	7,3′-Dihydroxy-8,4′-dimethoxyhomoisoflavane	$C_{18}H_{20}O_5$	$[\alpha]^{21}_D$ +28 (*c* 0.13, MeOH)	MeOH: 229 (3.49), 280 (3.15) nm	Antiinflammatory BV-2 cells	Inactive	198
747	4′-Hydroxy-7,8-dimethoxyhomoisoflavane	$C_{18}H_{20}O_4$	$[\alpha]^{21}_D$ +28 (*c* 0.1, MeOH)	MeOH: 225 (3.07), 278 (2.42) nm	Antiinflammatory BV-2 cells	Inactive	198
748	6,4′-Dihydroxy-7-methoxyhomoisoflavane	$C_{17}H_{18}O_4$	$[\alpha]^{20}_D$ +0.2 (*c* 1.0, MeOH)	-	Antiinflammatory BV-2 cells	Active	186
					NQO1 inducing Hepa 1c1c7 cells	Inactive at 20 μM	
749	(3*S*)-3,7-Dihydroxy-4′-methoxyhomoisoflavone (Dracaeconolide A)	$C_{17}H_{16}O_5$	$[\alpha]^{23}_D$ −85 (*c* 0.1, MeOH)	MeOH: 228 (4.23), 276 (3.85), 314 (3.25) nm	Mouse bone marrow-derived mesenchymal stem cell (MSC) Stem cell proliferation	Inactive at 10 μM	188
750	(3*R*)-7,4′-Dihydroxy-5,8-dimethoxyhomoisoflavan (Dracaeconolide B)	$C_{18}H_{20}O_5$	$[\alpha]^{23}_D$ −118 (*c* 0.1, MeOH)	MeOH: 284 (4.132) nm	Mouse bone marrow-derived mesenchymal stem cell (MSC) Stem cell proliferation	Active at 10 μM	188
751	(3*R*)-6,4′-Dihydroxy-8-methoxyhomoisoflavan	$C_{17}H_{18}O_4$	$[\alpha]^{23}_D$ +22 (*c* 0.13, MeOH)	-	Mouse bone marrow-derived mesenchymal stem cell (MSC)	Active at 10 μM	188

					Stem cell proliferation		
752	4,4′-Dihydroxy-2,6-dimethoxydihydrochlcone	$C_{17}H_{18}O_5$	-	-	Mouse bone marrow-derived mesenchymal stem cell (MSC) Stem cell proliferation	Inactive at 10 μM	188
753	2,4,4′-Trihydroxy-3′-methoxy-3-methydihydrochalcone	$C_{17}H_{18}O_5$	-	MeOH: 202.1 (0.53) nm	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
754	2,4,4′-Trihydroxy-3-methydihydrochalcone	$C_{16}H_{16}O_4$	-	MeOH: 278 (0.368) nm	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
755	2',4',4-Trihydroxy-3-methoxychalcone	$C_{16}H_{14}O_5$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
756	(±)-5,7,4′-Trihydroxy-6-methyldihydrohomoisoflavone	$C_{17}H_{16}O_5$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
757	(±)-7,4′-Dihydroxy-dihydrohomoisoflavone	$C_{16}H_{14}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Moderate active Inactive Moderate active	189
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Weak active	
758	(3*S*)-7,3′-Dihydroxy-4′-methoxydihydrohomoisoflavone	$C_{17}H_{16}O_5$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Weak active	

759	Cambodianal	$C_{18}H_{18}O_5$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	Active IC_{50}: 1.5 μg/mL IC_{50}: 2.8 μg/mL IC_{50}: 5.0 μg/mL	189
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Weak active	
760	(3*E*)-2,3-Dihydro-7-hydroxy-3-[(3-hydroxy-4-methoxyphenyl)-methylene]-4H-1-benzopyran-4-one	$C_{17}H_{14}O_5$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
761	7-Hydroxy-3-(4-hydroxybenzylidene)chroman-4-one	$C_{16}H_{12}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
762	(3*R*)-7,3′,4′-Trihydroxyhomoisoflavan	$C_{16}H_{16}O_3$	$[\alpha]^{36}_D$ +59.0 (*c* 0.5, acetone)	MeOH: 204.0 (2.11) nm	Against AChE	Active	190
763	(3*R*)-7,4′-Dihydroxy-8-methoxyhomoisoflavan	$C_{17}H_{18}O_4$	-	-	-	-	190
764	7,4′-Dihydroxyhomo isodihydroflavane	$C_{16}H_{14}O_4$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
765	(3*S*)-7,4′-Dihydroxy-5-methoxyhomoisodihydroflavane	$C_{17}H_{16}O_5$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
766	Echinatin	$C_{16}H_{14}O_4$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
767	Cochinchinemin A	$C_{17}H_{18}O_4$	-	-	-	-	199
768	Cochinchinemin B	$C_{17}H_{18}O_4$	-	-	-	-	199
769	1,3-Dihydroxy-2,4-dimethyl-5-methoxychalcone	$C_{18}H_{20}O_4$	$[\alpha]^{25}_D$ +20 (*c* 0.3, MeOH)	MeOH: 230 (4.26), 294 (2.35) nm	Anti-fungal *Exserohilum turcicum* *Bipolaris maydis* *Curvularia lunata* *Fusarium graminearum*	 Inactive Inactive Inactive Inactive	193
770	Xuejiein E	$C_{16}H_{16}O_4$	$[\alpha]^{20}_D$ –73.1 (*c* 0.026, MeOH)	MeOH: 284 (3.84), 200 (4.34) nm	-	-	194
771	2,4′-Dihydroxy-4-	$C_{16}H_{16}O_4$	-	-	Anti-HBV	Active	200

	methoxydihydrochalcone				HepG2.2.15 cells	IC_{50}: 20.56 μg/mL	
772	2,4′-Dihydroxy-4-methoxyhydrochalcone	$C_{16}H_{14}O_4$	-	-	Anti-HBV HepG2.2.15 cells	Active IC_{50}: 6.36 μg/mL	200
773	(3*R*)-7-Hydroxy-3′,4′-methylenedioxyhomoisoflavan	$C_{17}H_{16}O_4$	$[\alpha]^{21}_D$ +2.1 (*c* 0.1, CH_2Cl_2)	-	Antiinflammatory BV-2 cells	Mild active IC_{50}: 106.5 μM	201
					α-Glucosidase inhibitory	Inactive	
774	7,4′-Dihydroxy-3′-methoxyhomoisoflavan	$C_{17}H_{18}O_4$	- -	- -	Antiinflammatory BV-2 cells	Mild active IC_{50}: 376.1 μM	201
					α-Glucosidase inhibitory	Inactive	
775	2′,4′-Dihydroxychalcone	$C_{15}H_{12}O_3$	-	-	Antiinflammatory BV-2 cells	Inactive	201
					α-Glucosidase inhibitory	Moderate IC_{50}: 389.6 mM	
776	Daedracoflavan A	$C_{17}H_{20}O_5$	$[\alpha]^{25}_D$ −245.3 (*c* 0.53, MeOH)	MeOH: 292 (3.31), 242 (3.96) nm	Kidney fibrosis NRK-52e	Inactive	202
777	Daedracoflavan B	$C_{18}H_{20}O_5$	-	MeOH: 279 (4.28), 208 (4.40) nm	Kidney fibrosis NRK-52e	Active	202
778	Daedracoflavan C	$C_{19}H_{22}O_4$	-	MeOH: 279 (3.43), 232 (3.94), 206 (4.48) nm	Kidney fibrosis NRK-52e	Inactive	202
779	Daedracoflavan D	$C_{17}H_{18}O_4$	-	MeOH: 272 (3.41), 238 (4.22), 208 (4.57) nm	Kidney fibrosis NRK-52e	Inactive	202
780	Daedracoflavan E	$C_{18}H_{20}O_4$	-	MeOH: 275 (3.77), 210 (4.21) nm	Kidney fibrosis NRK-52e	Inactive	202
781	(7*R*,12b*R*)-7,10-Dihydroxy-4,11-dimethoxydracaenone	$C_{18}H_{18}O_6$	$[\alpha]^{20}_D$ −400.0 (*c* 0.1, MeOH)	MeOH: 245 (4.71), 284 (4.32) nm	Antiinflammatory BV-2 cells	Inactive	196
782	(7*S*,12b*S*)-11-Hydroxy-1,10-dimethoxydracaenone	$C_{18}H_{18}O_5$	$[\alpha]^{20}_D$ −300.0 (*c* 0.1, MeOH)	MeOH: 243 (4.69), 284 (4.29) nm	Antiinflammatory BV-2 cells	Inactive	196
783	(7*S*,12b*S*)-10,11-Dihydroxy-1-methoxydracaenone	$C_{17}H_{16}O_5$	$[\alpha]^{20}_D$ −330.0 (*c* 0.1, MeOH)	MeOH: 244 (4.68), 287 (4.35)	Antiinflammatory BV-2 cells	Inactive	196

				nm			
784	10-Hydroxy-11-methoxydracaenone	$C_{17}H_{16}O_4$	-	-	Antiinflammatory BV-2 cells	Active IC_{50}: 62.4 μM	196
785	10,11-Dihydroxydracaenone C	$C_{16}H_{14}O_4$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
	Hetromers and simple phenolic derivatives						
786	Nordracorubin	$C_{31}H_{22}O_5$	$[\alpha]^{20}_D$ −77.5 (*c* 0.024, MeOH)	MeOH: 249.5, 262, 292, 323, 340, 386, 475, 500 nm	-	-	174
787	(2*S*)-8-*trans*-[2-(6-Benzoyloxy-4-hydroxy-2-methoxy-3-methylphenyl)ethenyl]-5-methoxyflavan-7-ol	$C_{33}H_{30}O_7$	$[\alpha]^{20}_D$ −60 (*c* 0.57, $CHCl_3$)	232.5, 316, 326 nm	-	-	203
788	Dracoflavan A	$C_{49}H_{46}O_{10}$	$[\alpha]_D$ −52.5 (*c* 0.1, $CHCl_3$)	214, 272, 280 nm (solvent not indicated)	-	-	204
789	Damalachawin	$C_{47}H_{46}O_8$	-	MeOH: 214 (4.60), 223 (4.52), 285 (4.06) nm	-	-	205
790	Cinnabarone	$C_{32}H_{32}0_7$	-	EtOH: 207 (4.48), 221 (4.25), 280 (4.05) nm	-	-	206
791	2′-Methoxysocotrin-5′-ol	$C_{32}H_{32}O_7$	$[\alpha]^{22}_D$ 0 (*c* 0.32, MeOH)	MeOH: 211 (4.23), 225 (sh, 4.18), 282 (3.96) nm	-	-	207
792	Socotnin-4′-ol	$C_{31}H_{30}O_6$	-	-	-	-	207
793	Homoisosocotnin-4′-ol	$C_{32}H_{32}O_6$	-	-	-	-	207
794	Dracoflavan B (B_1 and B_2)	$C_{33}H_{30}O_7$	$[\alpha]^{22}_D$ +12.6 (*c* 0.05); $[\alpha]^{22}_D$ −76.4 (*c* 0.06)	214 (29 400) and 280 (1600) nm (solvent not indicated)	-	-	208
795	Dracoflavan C (C_1 and C_2)	$C_{33}H_{30}O_6$	-	213 (55 000), 275 (sh, 2200), and	-	-	208

				283 (2500) nm (solvent not indicated)			
796	Dracoflavan D (D_1 and D_2)	$C_{34}H_{32}O_6$	-	210 (58 000), 275 (4650), and 285 (4300) nm (solvent not indicated)	-	-	208
797	Dracophane	$C_{48}H_{48}O_9$	-	MeOH: 226 (4.69), 286 (4.10) nm	-	-	209
798	Cochinchin	$C_{25}H_{24}O_5$	$[\alpha]^{24}_D$ −30.2 (*c* 0.0053, Acetone)	-	-	-	177
799	Cochinchinenene A	$C_{33}H_{34}O_6$	$[\alpha]^{20}_D$ +3.0 (*c* 0.08, MeOH)	MeOH: 328 (2.65) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Moderate active	179
800	Cochinchinenene B	$C_{32}H_{32}O_6$	$[\alpha]^{20}_D$ +1.0 (*c* 0.16, MeOH)	MeOH: 328 (2.60) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Moderate active	179
801	Cochinchinenene C	$C_{31}H_{30}O_6$	$[\alpha]^{20}_D$ +6.0 (*c* 0.18, MeOH)	MeOH: 328 (2.58) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Moderate active	179
802	Cochinchinenene D	$C_{30}H_{28}O_6$	$[\alpha]^{20}_D$ +2.0 (*c* 0.15, MeOH)	MeOH: 328 (2.63) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Moderate active	179
803	(2*R*)-8-Methylsocotrin-4'-ol	$C_{32}H_{32}O_6$	$[\alpha]^{20}_D$ +1.0 (*c* 0.1, MeOH)	MeOH: 281 (2.21) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Moderate active	179
804	Cochinchinenin B	$C_{33}H_{34}O_7$	$[\alpha]^{20}_D$ +4.0 (*c* 0.14, MeOH)	MeOH: 281 (2.48) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Active MIC: 29.5 µM	179
805	Cochinchinenin C	$C_{33}H_{34}O_7$	$[\alpha]^{20}_D$ +3.0 (*c* 0.19, MeOH)	MeOH: 280 (2.47) nm	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Active MIC: 29.5 µM	179
806	Daemonorol A	$C_{33}H_{32}O_6$	$[\alpha]^{25}_D$ −118.0 (*c* 0.1, $CHCl_3$)	$CHCl_3$: 277 (3.52) nm	-	-	181
807	Daemonorol C	$C_{34}H_{34}O_6$	$[\alpha]^{25}_D$ −85.0 (*c*	$CHCl_3$: 273 (3.82)	-	-	181

			0.1, $CHCl_3$)	nm			
808	Daemonorol B	$C_{33}H_{32}O_6$	$[\alpha]^{25}_D$ –116.0 (*c* 0.1, $CHCl_3$)	$CHCl_3$: 281 (3.63) nm	-	-	181
809	Dracorubin	$C_{32}H_{25}O_5$	-	-	-	-	182
810	Syringaresinol	$C_{22}H_{26}O_8$	-	-	-	-	183
572	Pinoresinol	$C_{20}H_{22}O_6$	-	-	-	-	183
811	2-(4-Hydroxyphenyl)-6-(3-methoxy-4-hydroxyphenyl)-3,7-dioxabi-cyclo[3.3.0]octane	$C_{19}H_{20}O_5$	-	-	-	-	183
812	Cambodianin A	$C_{26}H_{26}O_6$	$[\alpha]^{22}_D$ –8.9 (*c* 0.5, MeOH)	MeOH: 305, 249 nm	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Active Active Active	184
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	
813	Cambodianin B	$C_{27}H_{28}O_7$	$[\alpha]^{22}_D$ –9.6 (*c* 0.5, MeOH)	MeOH: 308, 249 nm	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Active Active Active	184
					Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	
814	Dracaenin A	$C_{32}H_{28}O_7$	$[\alpha]^{20}_D$ –93.3 (*c* 0.01, MeOH)	MeOH: 204 (1.26), 281 (0.23), 341 (0.09), 387 (0.08), 529 (0.12)	-	-	210
815	Cambodianin E	$C_{34}H_{34}O_8$	$[\alpha]^{22}_D$ –0.87 (*c* 0.58, MeOH)	MeOH: 213 (3.72), 232 (3.78), 253 (2.92) nm	Antibacterial *Staphylococcus aureus* Methicillin-resistant *S. aureus* (MRSA)	 Active Active	185
816	Cochinchinenin D	$C_{33}H_{34}O_7$	$[\alpha]^{17}_D$ +48.8 (*c* 0.2, MeOH)	MeOH: 206 (2.48), 280 (2.21) nm	-	-	211
817	Cochinchinenin E	$C_{33}H_{34}O_6$	$[\alpha]^{17}_D$ +33.7 (c	MeOH: 207	-	-	211

			0.3, MeOH)	(2.69), 285 (2.48) nm			
818	Cochinchinenin F	$C_{33}H_{34}O_7$	$[\alpha]^{17}_D$ +8.0 (*c* 0.23, MeOH)	MeOH: 206 (2.60), 280 (2.58) nm	-	-	211
819	Cochinchinenin G	$C_{49}H_{50}O_9$	-	MeOH: 207 (2.69), 285 (2.21) nm	-	-	211
820	Cochinchinenin H	$C_{50}H_{52}O_{10}$	$[\alpha]^{17}_D$ +5.1 (*c* 0.23, MeOH)	MeOH: 207 (2.69), 285 (2.58) nm	-	-	211
821	(2*R*γ*S*)-3′-Methoxy-8-methylsocotrin-4′-ol	$C_{33}H_{34}O_7$	-	-	-	-	211
822	(2*S*γ*R*)-3′-Methoxy-8-methylsocotrin-4′-ol	$C_{33}H_{34}O_7$	-	-	-	-	211
823	(2*R*γ*R*)-8-Methylsocotrin-4′-ol	$C_{32}H_{32}O_6$	-	-	-	-	211
824	(2*R*γ*S*)-8-Methylsocotrin-4′-ol	$C_{32}H_{32}O_6$	-	-	-	-	211
825	Socotrin-4′-ol	$C_{31}H_{30}O_6$	-	-	-	-	211
826	Cambodianin G	$C_{27}H_{28}O_7$	$[\alpha]^{27}_D$ –60 (*c* 0.2, MeOH)	MeOH: 209 (3.81), 281 (1.98) nm	Cytotoxicity K-562 cells SGC-7901 cells	Active IC_{50}: 9.5 μg/mL IC_{50}: 16.2 μg/mL	212
					Antibacterial *S. aureus*	Zone of inhibition 9.91 mm	
827	Cambodianin H	$C_{28}H_{30}O_8$	$[\alpha]^{27}_D$ –120 (*c* 0.2, MeOH)	MeOH: 209 (3.30), 276 (2.01) nm	Cytotoxicity K-562 cells SGC-7901 cells	 Inactive Inactive	212
					Antibacterial *S. aureus*	Zone of inhibition 8.89 mm	
828	Cochinchinenene E	$C_{32}H_{32}O_6$	$[\alpha]^{20}_D$ –0.2 (*c* 0.5, MeOH)	-	Antiinflammatory BV-2 cells	 Active	186
					NQO1 inducing Hepa 1c1c7 cells	Active at 20 μM	
829	Cochinchinenene F	$C_{32}H_{32}O_{28}$	$[\alpha]^{20}_D$ 0.0 (*c* 1.4, MeOH)	-	Antiinflammatory BV-2 cells	 Active	186
					NQO1 inducing Hepa 1c1c7 cells	Active at 20 μM	

830	Cochinchinenene G	$C_{33}H_{34}O_6$	$[\alpha]^{21}_D$ –1.6 (*c* 0.55, MeOH)	MeOH: 299 (1.98), 287 (2.04), 218 (3.50) nm	-	-	213
831	Cochinchinenene H	$C_{30}H_{28}O_6$	$[\alpha]^{21}_D$ –0.7 (*c* 0.15, MeOH)	MeOH: 325 (1.78), 216 (2.42) nm	-	-	213
832	1-[5-(2-Methoxy-4,4'-dihydroxydihydrochalconyl)]-1-(4-hydroxyphenyl)-3-(2-methoxy-4-hydroxyphenyl)propane	$C_{32}H_{32}O_7$	-	-	-	-	213
833	(–)-Cochinchinenin I	$C_{30}H_{26}O_7$	$[\alpha]^{25}_D$ –6.0 (*c* 0.1, MeOH)	MeOH: 226 (2.94), 281 (2.88) nm	Antiinflammatory BV-2 cells	Inactive	214
834	(+)-Cochinchinenin I	$C_{30}H_{26}O_7$	$[\alpha]^{25}_D$ +6.0 (*c* 0.1, MeOH)	MeOH: 226 (2.94), 281 (2.88) nm	Antiinflammatory BV-2 cells	Inactive	214
835	(–)-Cochinchinenin J	$C_{33}H_{34}O_7$	$[\alpha]^{25}_D$ –20.0 (*c* 0.09, MeOH)	MeOH: 215 (3.41), 222 (3.40), 279 (2.80) nm	-	-	214
836	(+)-Cochinchinenin J	$C_{33}H_{34}O_7$	$[\alpha]^{25}_D$ +31.0 (*c* 0.07, MeOH)	MeOH: 212(2.83),230(3.48),280(2.88) nm	Antiinflammatory BV-2 cells	Inactive	214
837	(–)-Cochinchinenin K	$C_{32}H_{32}O_7$	$[\alpha]^{25}_D$ –20.0 (*c* 0.09, MeOH)	MeOH: 217 (3.30), 282 (2.89) nm	-	-	214
838	(+)-Cochinchinenin K	$C_{32}H_{32}O_7$	$[\alpha]^{25}_D$ +31.0 (*c* 0.07, MeOH)	MeOH: 211 (3.50), 230 (3.38), 281 (2.94) nm	Antiinflammatory BV-2 cells	Inactive	214
839	Cochinchinenin L	$C_{32}H_{32}O_7$	$[\alpha]^{25}_D$ –36.0 (*c* 0.1, MeOH)	MeOH: 210 (3.51),230(3.41),281(2.76) nm	Antiinflammatory BV-2 cells	Active IC_{50}: 5.4 μM	214
840	Cochinchinenin M	$C_{32}H_{32}O_7$	$[\alpha]^{25}_D$ +27.0˚ (c 0.11, MeOH)	MeOH: 212 (3.43),230(3.35),281(2.88) nm	Antiinflammatory BV-2 cells	Active IC_{50}: 5.4 μM	214
841	Dragonbloodin A1	$C_{50}H_{44}O_{10}$	$[\alpha]^{26}_D$ +42.4 (*c* 0.09, $CHCl_3$)	-	Human neutrophil elastase	Dose dependent inhibition	215
842	Dragonbloodin A2	$C_{50}H_{44}O_{10}$	-	-	Human neutrophil elastase	Dose dependent inhibition	215

843	3'-Methoxy-8-methylsocotrin-4'-ol	$C_{33}H_{34}O_7$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
					Antibacterial *Staphylococcus aureus*	 Active	
844	4'-Methoxy-8-methylso-cotrin-3'-ol	$C_{33}H_{34}O_7$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Inactive Inactive Inactive	189
					Antibacterial *Staphylococcus aureus*	 Active	
845	8-Methylsocotrin-4'-ol	$C_{32}H_{32}O_6$	-	-	Cytotoxicity K-562 cells SMMC-7721 cells SGC-7901 cells	 Moderate active Inactive Moderate active	189
					Antibacterial *Staphylococcus aureus*	 Active	
846	Dragonin A	$C_{34}H_{32}O_8$	$[\alpha]^{26}_D$ +9.0 (*c* 0.07, MeOH)	MeOH: 280 (3.50), 242 (4.14), 209 (4.42) nm	Antiinflammatory Fmlp/CB	Superoxide anion generation: IC_{50}: 3.1 μM. Elsatage release IC_{50}: 4.5 μM.	216
847	Dragonin B	$C_{34}H_{32}O_8$	$[\alpha]^{26}_D$ –2.0 (*c* 0.05, MeOH)	MeOH: 283 (3.70), 247 (4.30), 209 (4.58) nm	Antiinflammatory Fmlp/CB	Superoxide anion generation: IC_{50}: 1.3 μM. Elsatage release IC_{50}: 3.1 μM.	216
848	Dragonin C	$C_{34}H_{32}O_8$	$[\alpha]^{26}_D$ +1.0 (*c* 0.09, MeOH)	MeOH: 281 (3.69), 247 (4.07), 210 (4.42) nm	Antiinflammatory Fmlp/CB	 Inactive	216
849	Dragonin D	$C_{33}H_{30}O_8$	$[\alpha]^{26}_D$ +3.0 (*c* 0.03, MeOH)	MeOH: 284 (3.72), 249 (3.90), 210 (4.35) nm	Antiinflammatory Fmlp/CB	 Inactive	216
850	(2*S*,γ*R*)-1-[6-(7-Hydroxy-4′-Methoxy-8-methyfavanyl)]-1-(4-hydroxyphenyl)-3-(2-methoxy-4-hydroxyphenyl)-propane	$C_{33}H_{34}O_6$	-	-	Antiinflammatory BV-2 cells	 Inactive	191

	(Cochinchinenene G*)						
851	6-Methoxy-3-methyl-(1-hydroxy-3-(4-hydroxyphenyl) propyl)-bicyclo[3.1.0] hex-6-ene-2,4-dione (Cochinchinenene H*)	$C_{17}H_{18}O_5$	-	-	Antiinflammatory BV-2 cells	Inactive	191
852	(γ*S*)-1-[5-(4,4′-Dihydroxy-2-methoxydihydrochalconyl)]-1-(4-hydroxyphenyl)-3-(2-methoxy-4-hydroxy-phenyl)-propane	$C_{32}H_{32}O_7$	-	-	Antiinflammatory BV-2 cells	Inactive	191
853	Biflavocochin A	$C_{33}H_{30}O_8$	$[\alpha]^{20}_D$ –35 (*c* 0.11, MeOH)	MeOH: 205 (2.76), 280 (1.97) nm	PTP1B inhibition	Inactive at 10 μM	217
					Neuroprotective effects PC12 cells	Active	
854	Biflavocochin B	$C_{33}H_{30}O_8$	$[\alpha]^{20}_D$ +98 (*c* 0.1, MeOH)	MeOH: 205 (2.72), 280 (1.82) nm	PTP1B inhibition	75.5% inhibition at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
855	(–)-Biflavocochin C	$C_{33}H_{30}O_9$	$[\alpha]^{20}_D$ –15 (*c* 0.1, MeOH)	MeOH: 205 (2.89), 276 (2.31) nm	PTP1B inhibition	Inactive at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
856	(+)-Biflavocochin C	$C_{33}H_{30}O_9$	$[\alpha]^{20}_D$ +20 (*c* 0.1, MeOH)	MeOH: 205 (2.89), 276 (2.31) nm	PTP1B inhibition	Inactive at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
857	Biflavocochin D	$C_{33}H_{32}O_7$	$[\alpha]^{20}_D$ +10 (*c* 0.08, MeOH)	MeOH: 206 (2.64), 278 (1.84) nm	PTP1B inhibition	Inactive at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
858	Biflavocochin E	$C_{34}H_{34}O_9$	$[\alpha]^{20}_D$ +6.3 (*c* 0.11, MeOH)	MeOH: 207 (2.62), 278 (2.08) nm	PTP1B inhibition	Inactive at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
859	Biflavocochin F	$C_{34}H_{36}O_7$	$[\alpha]^{20}_D$ +13.8 (*c* 0.09, MeOH)	MeOH: 206 (2.56), 279 (1.80) nm	PTP1B inhibition	66.7% inhibition at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	
860	Biflavocochin G	$C_{34}H_{36}O_7$	$[\alpha]^{20}_D$ +9.0 (*c* 0.1, MeOH)	MeOH: 205 (2.63), 278 (1.88) nm	PTP1B inhibition	74.9% inhibition at 10 μM	217
					Neuroprotective effects PC12 cells	Inactive	

861	Cochinchinenin N	$C_{47}H_{46}O_{10}$	$[\alpha]^{25}_{D}$ –29.0 (*c* 0.13, MeOH)	MeOH: 216 (3.65), 281 (3.27) nm	Antiinflammatory BV-2 cells	Active IC_{50}: 11.5 μM	218
					Anti-fungal *Botrytis cinerea Magnaporthe grisea Penicillium digitatum Sclerotinia sclerotiorum*	IC_{50}: 38 μg/mL to 216 μg/mL	
862	Cochinchinenin O	$C_{49}H_{50}O_{10}$	$[\alpha]^{25}_{D}$ –8.0 (*c* 0.10, MeOH)	MeOH: 230 (5.05), 279 (4.95) nm	Antiinflammatory BV-2 cells	Inactive	218
863	Cochinchinenin P	$C_{48}H_{48}O_{9}$	$[\alpha]^{25}_{D}$ +40.0 (*c* 0.10, MeOH)	MeOH: 233 (5.02), 282 (4.96) nm	Antiinflammatory BV-2 cells	Inactive	218
864	Cochicnhicnen Q	$C_{48}H_{48}O_{10}$	$[\alpha]^{25}_{D}$ +10.0 (*c* 0.10, MeOH)	MeOH: 232 (4.99), 284 (4.73) nm	Antiinflammatory BV-2 cells	Inactive	218
865	Dracidione	$C_{32}H_{28}O_{6}$	-	MeOH: 236 (1), 291 (0.74), 339 (0.89) nm	α-Glucosidase inhibitory	Moderate active IC_{50}: 40.27 mg/mL	219
866	1,2,4,5-Tetrachloro-3,6-dimethoxybenzene	$C_{8}H_{6}Cl_{4}O_{2}$	-	-	-	-	220
867	*trans*-3,5-Dihydroxy-4′-methoxystilbene	$C_{15}H_{14}O_{3}$	-	-	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
868	*trans*-3,4′,5-Trihydroxystilbene	$C_{14}H_{12}O_{3}$	-	-	Antibacterial *Helicobacter pylori* (ATCC43504) strain	Inactive	179
869	Pterostilbene	$C_{16}H_{16}O_{3}$	-	-	Antiinflammatory BV-2 cells	Active	186
					NQO1 inducing Hepa 1c1c7 cells	Mild active at 20 μM	
870	*trans*-Resveratrol	$C_{14}H_{12}O_{3}$	-	-	-	-	213
871	3,4′-Dihydroxy-5-methoxystilbene	$C_{15}H_{14}O_{3}$	-	-	Antiinflammatory BV-2 cells	Inactive	191
872	*cis*-Resveratrol	$C_{14}H_{12}O_{3}$	-	-	Antiinflammatory BV-2 cells	Inactive	191
873	(7*E*)-1,5-Dihydroxy-11,12,13-trimethoxystilbene	$C_{17}H_{18}O_{5}$	-	MeOH: 207 (6.72), 324 (4.75)	Anti-fungal *Exserohilum turcicum*	Inactive	193

				nm	*Bipolaris maydis Curvularia lunata Fusarium graminearum*	Inactive Inactive Inactive	
874	(7*E*)-1,5-Dihydroxy-11,13-dimethoxystilbene	$C_{16}H_{16}O_4$	-	MeOH: 218 (4.81), 308 (4.83) nm	Anti-fungal *Exserohilum turcicum* *Bipolaris maydis Curvularia lunata Fusarium graminearum*	 Inactive Inactive Inactive Inactive	193
875	(7*E*)-2,4-Dihydroxy-1-methylstilbene	$C_{15}H_{14}O_2$	-	MeOH: 206 (6.78), 297 (4.68) nm	Anti-fungal *Exserohilum turcicum* *Bipolaris maydis Curvularia lunata Fusarium graminearum*	 Active Active Active IC50: 11.02 µg/mL	193
876	3,4-Dihydroxyallyl benzene	$C_9H_{10}O_2$	-	-	Antiinflammatory BV-2 cells	 Active	186
877	4-Hydroxybenzoic ethyl ester	$C_9H_{10}O_3$	-	-	Antiinflammatory BV-2 cells	 Inactive	186
878	4-Hydroxy-benzaldehyde	$C_7H_6O_2$	-	-	Antiinflammatory BV-2 cells	 Inactive	191
879	4-Methylphenol	C_7H_8O	-	-	Antiinflammatory BV-2 cells	 Inactive	191
880	4-Methoxylphenol	C_7H_8O	-	-	Antiinflammatory BV-2 cells	 Inactive	191
881	2,4-Dihydroxy benzaldehyde	$C_7H_6O_3$	-	-			194
882	Sinapaldehyde	$C_{11}H_{12}O_4$	-	-	Antiinflammatory BV-2 cells *α*-Glucosidase inhibitory	 Inactive Inactive	201
Terpenoids							
	Diterpenoids						
152	Pimaric acid	$C_{20}H_{30}O_2$	-	-	-	-	221
883	Isopimaric acid	$C_{20}H_{30}O_2$	-	-	-	-	221
158	Dehydroabietic acid	$C_{20}H_{28}O_2$	-	-	-	-	221
884	Abietic acid	$C_{20}H_{30}O_2$	-	-	Cytoprotective	Active at 100 µM	221, 222
885	7*β*-13-Dihydroxypodocarpa-8,11,13-trien-15-oic acid	$C_{17}H_{22}O_4$	$[\alpha]^{25}_D$ +19.46 (*c* 0.15, EtOH)	-	Cytoprotective	Active at 3 µM	222
886	7*α*,13-Dihydroxypodocarpa-8,11,13-trien-15-oic acid	$C_{17}H_{22}O_4$	$[\alpha]^{25}_D$ –30.16 (*c* 0.36, EtOH)	-	Cytoprotective	Inactive	222

887	7*β*,15-Dihydroxydehydroabietic acid	$C_{20}H_{28}O_4$	-	-	Cytoprotective	Inactive	222
888	7*α*,15-Dihydroxydehydroabietic acid	$C_{20}H_{28}O_4$	-	-	Cytoprotective	Inactive	222
636	15-Hydroxydehydroabietic acid	$C_{20}H_{28}O_3$	-	-			222
889	7-Oxo-dehydroabietic acid	$C_{20}H_{26}O_4$	-	-	Cytoprotective	Inactive	222
890	15-Hydroxyabietic acid	$C_{20}H_{30}O_3$	-	-	Cytoprotective	Inactive	222
641	12*α*-Hydroxyabietic acid	$C_{20}H_{30}O_3$	-	-	Cytoprotective	Inactive	222
891	7,13,15-Abietatrien-18-oic acid	$C_{20}H_{28}O_2$	-	-	Cytoprotective	Inactive	222
	Triterpenoids						
224	Cholest-4*α*-methyl-7-en-3*β*-ol (Lophenol)	$C_{28}H_{48}O$	-	-	-	-	220
225	Cholest-4*α*-methyl-7-en-3-one (Lophenone)	$C_{28}H_{46}O$	-	-	-	-	220
892	Dracorhodin	$C_{17}H_{14}O_3$	-	-	Cytotoxicity HepG2 cells	Inactive	180
644	Betulinic acid	$C_{30}H_{48}O_3$	-	-	-	-	223
893	24-Norbetulin	$C_{29}H_{48}O_2$	-	-	-	-	223
894	2-Hydroxylupenol	$C_{30}H_{50}O_2$	-	-	-	-	223
476	Lupenone	$C_{30}H_{48}O$	-	-	-	-	223, 224
647	Betulin	$C_{30}H_{50}O_2$	-	-	-	-	223
895	2-Hydroxybetulin	$C_{30}H_{50}O_3$	-	-	-	-	223
Steroids							
896	Cholest-7-en-3*β*-ol	$C_{27}H_{16}O$	-	-	-	-	220
897	Cholest-7-en-3-one	$C_{27}H_{44}O$	-	-	-	-	220
898	Dracaenogenin A	$C_{27}H_{40}O_5$	$[\alpha]_D$ 0 (*c* 0.20, MeOH)	-	-	-	225
899	Dracaenogenin B	$C_{27}H_{40}O_6$	$[\alpha]_D$ +13.7 (*c* 0.20, MeOH)	-	-	-	225
900	Dracaenol C	$C_{27}H_{36}O_4$	-	-	-	-	186
901	Spirost-5,25(27)-diene-1*β*,3*β*-diol	$C_{27}H_{40}O_4$	-	-	-	-	186
902	25*R*-Spirost-5-en-3*β*-ol	$C_{27}H_{42}O_3$	-	-	-	-	186
903	(25*R*)-Spirost-5-ene-3*β*,17*α*-diol	$C_{27}H_{42}O_4$	-	-	-	-	189
904	Diosgenin	$C_{27}H_{42}O_3$	-	-	-	-	191
905	(20*R*,22*S*,25*R*)-Spirost-5-ene-1*β*,3*β*,14*α*,15*α*-tetrol	$C_{27}H_{42}O_6$	-	-	-	-	191
Glycosides							
	Steroidal glycosides						

906	Cambodianoside A	$C_{45}H_{70}O_{17}$	$[\alpha]^{35}_{D}$ –100.0 (*c* 0.2, MeOH)	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
907	Cambodianoside D	$C_{40}H_{60}O_{16}$	$[\alpha]^{35}_{D}$ –110.0 (*c* 0.2, MeOH)	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
908	Cambodianoside E	$C_{39}H_{62}O_{15}$	$[\alpha]^{35}_{D}$ –35.0 (*c* 0.2, MeOH)	MeOH: 200, 250, 255 nm	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
909	Cambodianoside B	$C_{45}H_{72}O_{18}$	$[\alpha]^{35}_{D}$ –105.0 (*c* 0.2, MeOH)	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
910	Cambodianoside C	$C_{45}H_{72}O_{17}$	$[\alpha]^{35}_{D}$ –43 (*c* 0.2, MeOH)	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
911	Diosgenin-3-*O*-*α*-*L*-rhamnopyranosyl-(1→2)-[*α*-*L*-rhamnopyranosyl- (1→3)]-*β*-*D*-glucopyranoside	$C_{45}H_{72}O_{16}$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	Active IC_{50}: 1.27 μM IC_{50}: 4.72 μM IC_{50}: 2.88 μM	226
912	Pennogenin-3-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-[*α*-*L*-rhamnopyranosyl-(1 → 3)]-*β*-*D*-glucopyranoside	$C_{45}H_{72}O_{17}$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	Active IC_{50}: 5.09 μM IC_{50}: 1.13 μM IC_{50}: 3.39 μM	226
913	(25*S*)-Ruscogenin-1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-[*β*-*D*-xylopyranosyl-(1 → 3)]-*β*-*D*-glucopyranoside	$C_{44}H_{70}O_{17}$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
914	Cambodianoside F	$C_{32}H_{48}O_{11}S$	$[\alpha]^{35}_{D}$ –63 (*c* 0.2, MeOH)	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
915	Spirost-5,25(27)-dien-1*β*,3*β*-diol-1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-*α*-*L*-	$C_{38}H_{58}O_{12}$	-	-	Cytotoxic K562 cells	 Inactive	226

	arabinopyranoside				BEL-7402 cells SGC-7901 cells	Inactive Inactive	
916	Spirost-5,25(27)-dien-1*β*,3*β*-diol-1-*O*-*α*-*L*-rhamnopyranosy- (1 → 2)-[*β*-*D*-xylopyranosyl-(1 → 3)]-*α*-*L*-arabinopyranoside	$C_{43}H_{66}O_{16}$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	Active IC_{50}: 4.77 μM IC_{50}: 6.44 μM IC_{50}: 5.61 μM	226
917	Spirost-5,25(27)-dien-1*β*,3*β*-diol-1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-(4-*O*-sulfo)-*α*-*L*-arabinopyranoside	$C_{38}H_{60}O_{13}S$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
918	26-*O*-*β*-*D*-Glucopyranoside-(25*R*)-cholesta-5,17-diene-16,22-dione-3-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-[*α*-*L*-rhamnopyranosyl-(1 → 3)]-*β*-*D*-glucopyranoside	$C_{51}H_{80}O_{22}$	-	-	Cytotoxic K562 cells BEL-7402 cells SGC-7901 cells	 Inactive Inactive Inactive	226
919	Stigmast-5,22-diene-3-*O*-*β*-*D*-glucopyranoside	$C_{35}H_{58}O_6$	-	-			186
920	Cambodianoside G	$C_{45}H_{74}O_{18}$	$[\alpha]^{35}_D$ –45.0 (*c* 0.2, MeOH)	200, 250, 255 nm (solvent not indicated)	Antibacterial *Staphylococcus aureus*	 Inactive	227
921	Diosgenin pregna-5,16-dien-3*β*-ol-20-one 3-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-[*α*-*L*-rhamnopyranosyl-(1 → 3)]-*β*-*D*-glucopyranoside	$C_{39}H_{60}O_{15}$	-	-	Antibacterial *Staphylococcus aureus*	 Inactive	227
922	1*β*,3*β*-Dihydroxypregna-5,16-dien-20-one1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-*α*-*L*-arabinopyranoside	$C_{32}H_{48}O_{11}$	-	-	Antibacterial *Staphylococcus aureus*	 Inactive	227
923	24-*O*-*β*-*D*-Fucopyranoside-(23*S*,24*S*)-spirosta-5,25(27)-dien-1*β*,3*β*,23,24-tetrol1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-[*β*-*D*-xylopyranosyl-(1 → 3)]-*α*-*L*-arabinopyranoside	$C_{49}H_{76}O_{22}$	-	-	Antibacterial *Staphylococcus aureus*	 Inactive	227
924	24-*O*-*β*-*D*-Fucopyranoside-(23*S*,24*S*)-spirosta-5,25(27)-dien-1*β*,3*β*,23,24-tetrol1-*O*-*α*-*L*-rhamnopyranosyl-(1 → 2)-*α*-*L*-arabinopyranoside	$C_{44}H_{68}O_{18}$	-	-	Antibacterial *Staphylococcus aureus*	 Inactive	227
925	(23*S*,24*S*)-Spirosta-5,25(27)-dien-1*β*,3*β*,23,24-tetrol1-*O*-*α*-*L*-	$C_{43}H_{66}O_{18}$	-	-	Antibacterial *Staphylococcus aureus*	 Inactive	227

	rhamnopyranosyl-(1 → 2)-[*β*-*D*-xylopyranosyl-(1 → 3)]-*α*-*L*-arabinopyranoside						
926	24-*O*-*β*-*D*-Fucopyranoside-(23*S*,24*S*)-spirosta-5,25(27)-dien-1*β*,3*β*,23,24-tetrol1-*O*-(4-*O*-acetyl-*α*-*L*-rhamnopyranosyl)- (1 → 2)-[*β*-*D*-xylopyranosyl-(1 → 3)]-*α*-*L*-arabinopyranoside	$C_{51}H_{78}O_{23}$	-	-	Antibacterial *Staphylococcus aureus*	Active	227
	Phenylpropanoid glycosides				-	-	
927	Cambodianin F	$C_{33}H_{50}O_{20}$	$[\alpha]^{20}_{D}$ –180.0 (*c* 0.02, MeOH)	MeOH: 208 (2.54), 215 (1.65), 278 (0.56) nm	-	-	228
928	1-*O*-*β*-*D*-Glucopyranosyl-2-hydroxy-4-allylbenzene	$C_{15}H_{20}O_7$	- -	- -	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)		228, 194
					Wound-healing	Inactive	
929	1-*O*-(6-*O*-*α*-*L*-Rhamnopyranosyl-*β*-*D*-glucopyranosyl)-2-hydroxy-4-allylbenzene	$C_{21}H_{30}O_{11}$	-	-	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)		228, 194
					Wound-healing	Inactive	
930	1,2-Di-*O*-*β*-*D*-Glucopyranosyl-4-allylbenzene	$C_{21}H_{30}O_{12}$	-	-	-	-	228
931	Xuejiein A	$C_{21}H_{30}O_{11}$	$[\alpha]^{20}_{D}$ –51.9 (*c* 0.056, MeOH)	MeOH: 275 (3.77), 210 (4.21) nm	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194
					Wound-healing	Inactive	
932	Xuejiein B	$C_{21}H_{30}O_{11}$	$[\alpha]^{20}_{D}$ –175.8 (*c* 0.033, MeOH)	MeOH: 275 (3.85), 210 (4.31) nm	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194

					Wound-healing	Inactive	
933	1-Hydroxy-2-*O*-*β*-*D*-glucopyranosyl-4-allylbenzene	$C_{15}H_{20}O_7$	-	-	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194
					Wound-healing	Inactive	
	Other glycosides						194
934	Xuejiein C	$C_{20}H_{25}NO_{11}$	$[\alpha]^{20}_D$ –40.4 (*c* 0.023, MeOH)	285 (4.56), 210 (4.47) nm (solvent not indicated)	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194
					Wound-healing	Inactive	
935	(–)-Cuminyl-[*α*-*L*-rhamnopyranosyl(1 → 6)]-*β*-*D*-glucopyranoside	$C_{22}H_{34}O_{10}$	-	-	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194
					Wound-healing	Active at 40 µM	
936	4-*O*-*β*-*D*-Glucopyranosyl-2-hydroxy-6-methoxyace-tophenone	$C_{15}H_{20}O_9$	-	-	Antifungal (*Botrytis cinerea, Magnaporthe grisea, Penicillium digitatum,* and *Sclerotinia sclerotiorum*)	Inactive	194
					Wound-healing	Inactive	

Table S5 Physicochemical properties, and biological activities of compounds derived from *Ferula* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV λ_{max} (logε)	Biological Activity	Activity status	Ref.
Sesquiterpenoids							
937	(–)-*β*-Dihydroagarofuran	$C_{15}H_{26}O$	$[\alpha]^{20}_D$ –78 (*c* 1%, $CHCl_3$)	-	-	-	239,240
938	(+)-10-*epi*-Junenol	$C_{15}H_{26}O$	$[\alpha]^{20}_D$ +54 (*c* 5.4%, $CHCl_3$)	-	-	-	239,240
939	(+)-*β*-Eudesmol	$C_{15}H_{28}O$	-	-	-	-	239
940	(+)-10-*epi*-Elemol	$C_{15}H_{26}O$	$[\alpha]^{20}_D$ +34 (*c* 1.2%, $CHCl_3$)	-	-	-	239
941	(–)-(*Z*)-Dihydrofarnesol	$C_{15}H_{28}O$	$[\alpha]^{20}_D$ –4 (*c* 1.03%, $CHCl_3$)	-	-	-	239
942	Guai-9-en-11-ol	$C_{15}H_{26}O$	$[\alpha]^{20}_D$ +4.9 (*c* 1.15%, $CHCl_3$)	-	-	-	239

943	*epi*-Ligulyl oxide	$C_{15}H_{26}O$	-	-	-	-	239
944	Guaiol	$C_{15}H_{26}O$	-	-	-	-	239
945	Bulnesol	$C_{15}H_{26}O$	-	-	-	-	239
946	α-Eudesmol	$C_{15}H_{28}O$	-	-	-	-	239
947	Fetidone A	$C_{15}H_{20}O_2$	$[\alpha]^{25}_D$ +181 (*c* 4.0, CH_2Cl_2)	-	-	-	241
948	Fetidone B	$C_{15}H_{20}O_2$	$[\alpha]^{25}_D$ +59 (*c* 5.2, CH_2Cl_2)	-	-	-	241
949	Taraxacin	$C_{15}H_{14}O_3$	-	-	-	-	241
Diterpenoids							
950	15-Hydroxy-6-en-dehydroabietic acid	$C_{20}H_{26}O_3$	$[\alpha]^{25}_D$ −14.6 (*c* 0.16, $CHCl_3$)	MeOH: 243 (3.95), 271 (3.74) nm	-	-	242
951	Picealactone C	$C_{20}H_{22}O_4$	-	-	-	-	242
159	7-Oxocallitrisic acid	$C_{20}H_{26}O_3$	-	-	-	-	242
Sesquiterpenoid coumarins							
952	Asacoumarin B (galbanic acid)	$C_{24}H_{30}O_5$	$[\alpha]_D$ −13.3 (*c* 0.4, $CHCl_3$)	-	FTase inhibition	IC_{50}: 2.5 μM	243,244, 245,246, 247
					Proliferation (NIH3T3/Hras-F cells)	IC_{50}: 16.2 μM	
					Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 10.5 μM	
953	Asacoumarin A	$C_{24}H_{30}O_5$	$[\alpha]_D$ +7.0 (*c* 0.7, $CHCl_3$)	-	-	-	243,248
954	5-Hydroxyumbelliprenin	$C_{26}H_{32}O_6$	-	-	-	-	244
955	8-Hydroxyumbelliprenin	$C_{24}H_{30}O_5$		-	-	-	244
956	9-Hydroxyumbelliprenin (tadshferin)	$C_{24}H_{30}O_5$	-	-	-	-	244
957	8-Acetoxy-5-hydroxyumbelliprenin	$C_{26}H_{32}O_6$	$[\alpha]_D$ +7.9 (*c* 1.3, $CHCl_3$)	MeOH: 325, 206 nm	-	-	244,248
958	Saradaferin	$C_{24}H_{30}O_4$	$[\alpha]^{25}_D$ +54	MeOH: 324, 210 nm	-	-	249
959	*epi*-Conferdione	$C_{24}H_{26}O_5$	$[\alpha]_D$ +66.6 (*c* 0.2, MeOH)	MeOH: 289 (3.44), 298 (3.59), 321 (3.12) nm	-	-	248
960	Colladonin	$C_{24}H_{30}O_4$	$[\alpha]_D$ −59.1 (*c* 0.7, $CHCl_3$)	-	-	-	248
961	10′*R*-Karatavicinol	$C_{24}H_{32}O_5$	$[\alpha]_D$ +16.2 (*c* 0.6, $CHCl_3$)	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 47.43 μM	248,245, 246,247
962	Asimafoetida	$C_{24}H_{30}O_4$	$[\alpha]_D$ +3.8 (*c* 0.2, $CHCl_3$)	MeOH: 215 (3.49), 324 (4.03) nm	-	-	250
963	Farnesiferol A	$C_{24}H_{30}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active at 50 μM	250,247

964	Farnesiferol C	$C_{24}H_{30}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 31.43 μM	250,245, 246,247
965	Asimafoetidnol	$C_{24}H_{32}O_5$	$[\alpha]^{25}_D$ +17.7 (*c* 0.03, $CHCl_3$)	MeOH: 215 (3.64), 324 (3.86) nm			251
966	Umbelliprenin	$C_{24}H_{30}O_3$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active at 50 μM	245,246, 247
967	Farnesiferol B	$C_{24}H_{30}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 45.37 μM	245,246, 247
968	Karatavicinol A	$C_{27}H_{36}O_5$	-	MeOH: 331 nm	-	-	246
969	7-Hydroxycoumarin	$C_9H_6O_3$	-	-	-	-	246
970	Badrakemin acetate	$C_{16}H_{32}O_5$	-	-	Cytotoxicity	Inactive	252
			-	-	Antiviral activity (HSV-1)	Inactive	
971	Kellerin	$C_{26}H_{34}O_6$	-	-	Cytotoxicity	Significant cytopathic effects	252
					Antiviral activity (HSV-1)	Active (dose dependent)	
972	Samarcandin diastereomer	$C_{24}H_{32}O_5$	-	-	Cytotoxicity	Inactive	252
					Antiviral activity (HSV-1)	Inactive	
973	Conferone	$C_{24}H_{28}O_4$	$[\alpha]_D$ –50.75 (*c* 0.2, EtOH)	-	-	-	253
974	Badrakemin	$C_{24}H_{30}O_4$	$[\alpha]_D$ –62 (*c* 0.2, EtOH)	-	-	-	253
975	Feslol	$C_{24}H_{30}O_4$	$[\alpha]_D$ –98.5 (*c* 0.2, EtOH)	-	-	-	253
976	Isosamarcandin	$C_{29}H_{38}O_6$	$[\alpha]_D$ +27.5 (*c* 0.2, EtOH)	-	-	-	253
977	Samarcandin	$C_{24}H_{32}O_5$	$[\alpha]_D$ +30.25 (*c* 0.2, EtOH)	-	-	-	253
978	Deacetyl kellerin	$C_{24}H_{32}O_5$	-	-	-	-	254
979	(3′*S*,8′*R*,9′*S*,10′*R*)-Sinkianol A	$C_{24}H_{30}O_4$	$[\alpha]^{20}_D$ +39.8 (*c* 1.13, $CHCl_3$)	-	Antineuroinflammatory (BV-2 microglial cells)	Active at 50 μM	247
980	(5′*S*,8′*R*,9′*S*,10′*R*)-Ferukrinone	$C_{24}H_{32}O_5$	$[\alpha]^{20}_D$ –10.9 (*c* 0.76, $CHCl_3$)	-	Antineuroinflammatory (BV-2 microglial cells)	Active at 50 μM	247
981	Ferukrin	$C_{24}H_{32}O_5$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 21.34 μM	247
982	(3′*S*,5′*S*,8′*R*,9′*S*,10′*R*)-Kellerin	$C_{24}H_{32}O_5$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 4.96 μM	247
983	(3′*S*,5′*S*,8′*R*,9′*S*,10′*R*)-Deacetylkellerin	$C_{26}H_{34}O_6$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 31.61 μM	247
984	Farnesiferone A	$C_{24}H_{28}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 37.88 μM	247
985	Gummosin	$C_{24}H_{30}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 6.93 μM	247

986	Polyanthinin	$C_{27}H_{34}O_5$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 19.88 μM	247
987	(3′*R*,5′*R*,10′*R*)-Sinkianol B	$C_{24}H_{32}O_5$	-	-	-	-	247
988	Methyl galbanate	$C_{25}H_{32}O_5$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active IC_{50}: 5.94 μM	247
989	Ferusingensine A	$C_{26}H_{34}O_5$	$[\alpha]^{20}_D$ +20.6 (*c* 0.14, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
990	Ferusingensine B	$C_{24}H_{32}O_4$	$[\alpha]^{20}_D$ +8.4 (*c* 0.44, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Inactive	255
991	Ferusingensine C	$C_{35}H_{50}O_5$	$[\alpha]^{20}_D$ +1.5 (*c* 0.19, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Inactive	255
992	Ferusingensine D	$C_{34}H_{48}O_5$	$[\alpha]^{20}_D$ +2.26 (*c* 0.31, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Inactive	255
993	Ferusingensine E	$C_{24}H_{30}O_4$	-	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
994	(8′*S*,9′*S*,10′*S*)-Propionyl fekrynol	$C_{27}H_{36}O_5$	$[\alpha]^{20}_D$ +16.65 (*c* 0.28, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
995	Ferusingensine F	$C_{34}H_{48}O_5$	$[\alpha]^{20}_D$ +5.78 (*c* 0.46, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
996	Ferusingensine G	$C_{24}H_{28}O_5$	$[\alpha]^{20}_D$ +19.81 (*c* 53, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Significant active IC_{50}: 1.2 μM	255
997	Ferusingensine H	$C_{24}H_{30}O_4$	$[\alpha]^{20}_D$ +30.36 (*c* 0.44, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
998	(3′S,4′*S*,5′*R*,8′*S*,9′*S*,10′*S*)-Kamolol acetate	$C_{26}H_{34}O_5$	$[\alpha]^{20}_D$ 0.5 (*c* 0.1, MeOH)	-	Antineuroinflammatory (BV-2 microglial cells)	Active (dose dependent)	255
999	Sinkiangenol A	$C_{26}H_{30}O_7$	$[\alpha]^{25}_D$ +31.0 (*c* 0.035, MeOH)	MeOH: 322 (3.96) nm	Cytotoxic HeLa cells	Inactive	256
1000	Sinkiangenol B	$C_{24}H_{30}O_5$	$[\alpha]^{25}_D$ +40.0 (*c* 0.08, MeOH)	MeOH: 323 (3.98) nm	Cytotoxic HeLa cells	Inactive	256
1001	Sinkiangenol C	$C_{24}H_{30}O_5$	$[\alpha]^{25}_D$ +37.0 (*c* 0.075, MeOH)	MeOH: 320 (4.14) nm	Cytotoxic HeLa cells	Inactive	256
1002	Sinkiangenol D	$C_{28}H_{38}O_6$	$[\alpha]^{25}_D$ +9.0 (*c* 0.065, MeOH)	MeOH: 323 (4.14) nm	Cytotoxic HeLa cells	Inactive	256
1003	Sinkiangenol E	$C_{26}H_{32}O_6$	$[\alpha]^{25}_D$ +12.0 (*c* 0.09, MeOH)	MeOH: 320 (4.02) nm	Cytotoxic HeLa cells	Significant active	256
1004	Sinkiangenol F	$C_{18}H_{16}O_5$	$[\alpha]^{25}_D$ +1.0 (*c* 0.102, MeOH)	MeOH: 326 (4.37) nm	Cytotoxic HeLa cells	Inactive	256
1005	2,3-Dihydro-7-hydroxy-	$C_{24}H_{26}O_5$	-	-	Cytotoxic		256

	2*R**,3*S**-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*)-pentenyl]-furo[3,2-c]coumarin				HeLa cells	Inactive	
1006	2,3-Dihydro-7-hydroxy-2*R**,3*R**-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*)-pentenyl]-furo[3,2-c]coumarin	$C_{24}H_{26}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
1007	12′-Hydroxy-karatavicinol	$C_{24}H_{32}O_6$	-	-	Cytotoxic HeLa cells	Inactive	256
1008	Fekrynol	$C_{26}H_{34}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
1009	Actylfekrynol	$C_{24}H_{32}O_4$	-	-	Cytotoxic HeLa cells	Inactive	256
1010	Ferocaulidin	$C_{24}H_{48}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
1011	Fekrol	$C_{24}H_{32}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
1012	Ferucrinone	$C_{24}H_{30}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
1013	Colladocin	$C_{26}H_{34}O_6$	-	-	Cytotoxic HeLa cells	Inactive	256
1014	Lehmannolol	$C_{24}H_{32}O_4$	-	-	Cytotoxic HeLa cells	Inactive	256
1015	Kamolone	$C_{24}H_{30}O_4$	-	-	Cytotoxic HeLa cells	Inactive	256
1016	Assafoetidnol B	$C_{26}H_{32}O_7$	-	-	Cytotoxic HeLa cells	Inactive	256
1017	Assafoetidnol A	$C_{24}H_{30}O_5$	-	-	Cytotoxic HeLa cells	Inactive	256
Phenolic derivatives							
1018	(2*E*)-3,4-Dimethoxycinnamyl-3-(3,4-diacetoxyphenyl) acrylate	$C_{24}H_{24}O_8$	-	MeOH: 219 (4.33), 290 (4.71), 331 (4.57) nm	Antiinflammatory RAW 264.7 cells	Active IC_{50}: 54.9 μM	257
1019	Ferulic acid	$C_{10}H_{10}O_4$	-	-	-	-	250
1020	Sinkiangenone A	$C_{35}H_{44}O_7$	$[\alpha]^{25}_D$ +23.08 (*c* 0.065,	MeOH: 272 (4.65)	Cytotoxicity		258

			MeOH)	nm	AGS cells	Inactive	
1021	Sinkiangenone B	$C_{34}H_{42}O_7$	$[\alpha]^{25}_D$ +23.08 (*c* 0.065, MeOH)	MeOH: 271 (4.45) nm	Cytotoxicity AGS cells	Active	258
1022	Sinkiangenone C	$C_{20}H_{22}O_8$	$[\alpha]^{25}_D$ +2.0 (*c* 0.05, MeOH)	MeOH: 324 (4.52), 287 (4.40) nm	Cytotoxicity AGS cells	Inactive	231
1023	Sinkiangenone D	$C_{20}H_{22}O_8$	$[\alpha]^{25}_D$ +3.33 (*c* 0.09, MeOH)	MeOH: 323 (4.39), 288 (4.26) nm	Cytotoxicity AGS cells	Inactive	258
1024	Ferulaeone G	$C_{33}H_{42}O_5$	-	-	Cytotoxicity AGS cells	Inactive	258
1025	3′,4′-Dimethoxy cinnamyl isovalent	$C_{16}H_{22}O_4$	-	-	Cytotoxicity AGS cells	Inactive	258
1026	(2*E*)-3-(4-Ethoxy-3-methoxyphenyl)prop-2-en-1-ol	$C_{12}H_{16}O_3$	-	-	Cytotoxicity AGS cells	Inactive	258
577	Vanillin	$C_8H_8O_3$	-	-	Cytotoxicity AGS cells	Inactive	258
1027	4,4′-Dihydroxy-3,3′-dimethoxy-*trans*-stilbene	$C_{16}H_{16}O_4$	-	-	Cytotoxicity AGS cells	Inactive	258
1028	Coniferaldehyde	$C_{10}H_{10}O_3$	-	-	Cytotoxicity AGS cells	Inactive	258
1029	3-(3,4-Dimethoxyphenyl)-2-propen-1-yl ester	$C_{21}H_{22}O_6$	-	-	Cytotoxicity AGS cells	Inactive	258
1030	*p*-Hydroxycinnamic acid	$C_9H_8O_3$	-	-	Cytotoxicity AGS cells	Inactive	258
1031	(7*S*,8*R*)-Guaiacyl glycerol	$C_{10}H_{14}O_5$	-	-	Cytotoxicity AGS cells	Inactive	258
1032	(7*S*,8*S*)-Guaiacyl glycerol	$C_{10}H_{14}O_5$	-	-	Cytotoxicity AGS cells	Inactive	258
1033	(–)-Sinkianlignan A	$C_{30}H_{30}O_8$	$[\alpha]^{20}_D$ –117.4 (*c* 0.046, MeOH)	MeOH: 210 (2.6), 285 (1.02), 328 (1.07) nm	Antiinflammatory RAW 264.7 cells	Inactive	259
1034	(+)-Sinkianlignan A	$C_{30}H_{30}O_8$	$[\alpha]^{20}_D$ +82.0 (*c* 0.05, MeOH)		Antiinflammatory RAW 264.7 cells	Inactive	259
1035	(–)-Sinkianlignan B	$C_{30}H_{32}O_{10}$	$[\alpha]^{20}_D$ –10.0 (*c* 0.01, MeOH)	MeOH: 200 (1.88), 232 (0.44), 284 (0.25), 325 (0.32) nm	Antiinflammatory RAW 264.7 cells	Active Dose dependent	259
1036	(+)-Sinkianlignan B	$C_{30}H_{32}O_{10}$	$[\alpha]^{20}_D$ +4.0 (*c* 0.01, MeOH)		Antiinflammatory RAW 264.7 cells	Active Dose dependent	259
1037	(–)-Sinkianlignan C	$C_{30}H_{36}O_8$	$[\alpha]^{20}_D$ –45.6(*c* 0.02, MeOH)	MeOH: 200 (1.50),	Antiinflammatory		259

				232 (0.24), 282 (0.11) nm	RAW 264.7 cells	Inactive	
1038	(+)-Sinkianlignan C	$C_{30}H_{36}O_8$	$[\alpha]^{20}_D$ +25.3 (*c* 0.02, MeOH)		Antiinflammatory RAW 264.7 cells	Inactive	259
1039	(+)-Sinkianlignan D	$C_{23}H_{26}O_8$	$[\alpha]^{20}_D$ +68.0 (*c* 0.05, MeOH)	MeOH: 200 (2.34), 286 (0.66), 232 (0.9), 326 (0.93) nm	Antiinflammatory RAW 264.7 cells	Inactive	259
1040	(–)-Sinkianlignan D	$C_{23}H_{26}O_8$	$[\alpha]^{20}_D$ –90.6 (*c* 0.05, MeOH)		Antiinflammatory RAW 264.7 cells	Inactive	259
1041	(+)-Sinkianlignan E	$C_{21}H_{26}O_5$	$[\alpha]^{20}_D$ +8.0 (*c* 0.02, MeOH)	MeOH: 200 (1.3), 262(0.25), 284 (0.25), 280 (3.81) nm	Antiinflammatory RAW 264.7 cells	Inactive	259
1042	(–)-Sinkianlignan E	$C_{21}H_{26}O_5$	$[\alpha]^{20}_D$ –1.7 (*c* 0.02, MeOH)		Antiinflammatory RAW 264.7 cells	Inactive	259
1043	(–)-Sinkianlignan F	$C_{21}H_{26}O_5$	$[\alpha]^{20}_D$ –14.0 (*c* 0.02, MeOH)	MeOH: 200 (1.43), 264 (0.22), 280 (3.81) nm	Antiinflammatory RAW 264.7 cells	Inactive	259
1044	(+)-Sinkianlignan F	$C_{21}H_{26}O_5$	$[\alpha]^{20}_D$ +18.0 (*c* 0.02, MeOH)		Antiinflammatory RAW 264.7 cells	Inactive	259
1045	(–)-Ferulasinkin A	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ –19.3 (*c* 0.05, MeOH)	MeOH: 201 (3.97), 216 (2.97), 230 (3.11), 282 (2.63) nm	Cytotoxicity TNBS cells	Inactive	260
					Wound-healing properties	Inactive	
1046	(+)-Ferulasinkin A	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ +26.0 (*c* 0.05, MeOH)		Cytotoxicity TNBS cells	Inactive	260
					Wound-healing properties	Inactive	
1047	(–)-Ferulasinkin B	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ –19.3 (*c* 0.05, MeOH)	MeOH: 202 (3.93), 217 (3.01), 230 (3.13), 280 (2.69) nm	Cytotoxicity TNBS cells	Active	260
					Wound-healing properties	Inactive	
1048	(+)-Ferulasinkin B	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ +23.3 (*c* 0.05, MeOH)		Cytotoxicity TNBS cells	Inactive	260
					Wound-healing properties	Inactive	
1049	(–)-Ferulasinkin C	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ –21.0 (*c* 0.05, MeOH)	MeOH: 202 (4.18), 216 (3.21), 231 (3.35), 282 (2.89) nm	Cytotoxicity TNBS cells	Active	260
					Wound-healing properties	Inactive	
1050	(+)-Ferulasinkin C	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ +19.3 (*c* 0.05, MeOH)		Cytotoxicity TNBS cells	Inactive	260

					Wound-healing properties	Inactive	
1051	(–)-Ferulasinkin D	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ –6.0 (*c* 0.04, MeOH)	MeOH: 201(3.76),215(2.76),231 (2.86),280(2.41) nm	Cytotoxicity TNBS cells	Inactive	260
					Wound-healing properties	Active	
1052	(+)-Ferulasinkin D	$C_{19}H_{22}O_7$	$[\alpha]^{20}_D$ +8.6 (*c* 0.04, MeOH)		Cytotoxicity TNBS cells	Inactive	260
					Wound-healing properties	Active	
1053	(–)-Sinkianlignan G	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ –21.6 (*c* 0.04, MeOH)	MeOH: 201 (3.91), 215 (3.04), 232 (3.13), 248 (1.88), 281 (2.72) nm	Antiinflammatory COX-2 inhibition	All are active IC_{50} ranging from 3.00 µ M to 23.19 µ M.	261
1054	(+)-Sinkianlignan G	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ +20.8 (*c* 0.04, MeOH)				261
1055	(+)-Sinkianlignan H	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$+38.4 (c 0.04, MeOH)	MeOH: 201 (3.84), 216 (2.94), 230 (3.04), 249 (1.58), 280 (2.62) nm			261
1056	(–)-Sinkianlignan H	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ –45.7 (*c* 0.05, MeOH)				261
1057	(–)-Sinkianlignan I	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ –11.1 (*c* 0.04, MeOH)	MeOH: 201 (4.05), 216 (3.13), 231 (3.26), 248 (1.88), 281 (2.83) nm			261
1058	(+)-Sinkianlignan I	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ +13.58 (*c* 0.04, MeOH)				261
1059	(–)-Sinkianlignan J	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ –13.43 (c 0.07, MeOH)	MeOH: 201 (3.96), 217 (3.03), 231 (3.13), 251 (1.46), 281 (2.70) nm			261
1060	(+)-Sinkianlignan J	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ +9.09 (*c* 0.06, MeOH)				261
1061	(+)-Sinkianlignan K	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ +56.41 (*c* 0.04, MeOH)	MeOH: 202 (4.06), 216 (3.11), 231 (3.25), 250 (1.48), 280 (2.78) nm			261
1062	(–)-Sinkianlignan K	$C_{20}H_{24}O_7$	$[\alpha]^{25}_D$ –73.72 (*c* 0.05, MeOH)				261
1063	Ferulagenol A	$C_{16}H_{18}O_5$	-	MeOH: 211 (3.06), 223 (2.98), 236 (3.02), 258 (2.71), 278 (2.80) nm			261
1064	3,3′ -Dimethoxy-4,4′-dioxychalcone	$C_{17}H_{16}O_5$	-	-			261

1065	4-Hyroxy-3-methoxyphnylerulate	$C_{17}H_{16}O_6$	-	-			261
1066	Brachangobinan E	$C_{16}H_{24}O_6$	-	-			261
Sulphur derivatives							
1067	Asadisulphide	$C_{12}H_{20}O_3S_2$	$[\alpha]_D$ +240 (*c* 0.4, $CHCl_3$)	-	-	-	243
1068	Sinkiangenoxide A	$C_{11}H_{14}O_3S$	$[\alpha]^{25}_D$ −11.0 (*c* 0.092, MeOH)	MeOH: 276 (4.01) nm	Cytotoxic MCF-7 cells CasKi cells A549 cells HepG2 cells	 Moderate active Moderate active Moderate active Moderate active	262
1069	Sinkiangenoxide B	$C_{21}H_{24}O_8S$	$[\alpha]^{25}_D$ −1.0 (*c* 0.094, MeOH)	MeOH: 328 (4.20), 290 (4.09), 238 (4.22) nm	Cytotoxic MCF-7 cells CasKi cells A549 cells HepG2 cells	 Moderate active Moderate active Moderate active Active (IC_{50}: 15.0 μM)	262
1070	(2*Z*, 4*E*)-Sinkiangenoxide C	$C_{11}H_{20}O_3S$	$[\alpha]^{25}_D$ +2.0 (*c* 0.095, MeOH)	MeOH: 244 (3.93) nm	Cytotoxic MCF-7 cells CasKi cells A549 cells HepG2 cells	 Moderate active Moderate active Moderate active Moderate active	262
1071	(2*E*, 4*E*)-Sinkiangenoxide C	$C_{11}H_{20}O_3S$	$[\alpha]^{25}_D$ +3.0 (*c* 0.094, MeOH)	MeOH: 242 (4.14) nm	Cytotoxic MCF-7 cells CasKi cells A549 cells HepG2 cells	 Moderate active Moderate active Moderate active Moderate active	262
1072	1-(Methylthio)propyl (*E*)-1-propenyl disulfide	$C_7H_{14}S_3$	-	-	Antiinflammatory (RAW 264.7 cells)	IC_{50}: 16.8 μM	262

Table S6 Physicochemical properties, and biological activities of compounds derived from *Populus* species

No.	Compound Name	Molecular Formula	Optical Rotation	UV λ_{max} (logε)	Biological Activity	Activity status	Ref.
Monoterpenoid							
1073	(+)-8-Hydroxycarvotanacetone	$C_{10}H_{16}O_2$	-	-	Neuroprotective (SH-SY5Y cells)	Active	269
Sesquiterpenoid							

1074	11-Oxo-13-*nor*-alismol	$C_{15}H_{22}O_2$	-	-	Neuroprotective SH-SY5Y cells	 Active	269
Diterpenoids							
1075	Populeuphrine A	$C_{22}H_{38}O_5$	$[\alpha]^{25}_D$ +14.0 (*c* 0.1, MeOH:)	MeOH: 203 (3.72) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	268
					Wound healing	Inactive	
1076	Populeuphrine B	$C_{22}H_{34}O_5$	$[\alpha]^{25}_D$ +18.0 (*c* 0.07, MeOH:)	236 (2.84), 209 (2.52) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	268
					Wound healing	Inactive	
322	Isoincensole-oxide	$C_{20}H_{34}O_3$	-	-	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	268
					Wound healing	Inactive	
337	*rel*-(1*S*,3*R*,7*E*,11*S*,12*R*)-1,12-Epoxy-4-methylenecembr-7-ene-3,11-diol	$C_{20}H_{34}O_3$	$[\alpha]^{20}_D$ +40.5 (*c* 0.19, $CHCl_3$)	MeOH: 206 (2.87) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	268
					Wound healing	Inactive	
321	(1*S*,3*R*,4*R*,11*S*,12*R*,7*E*)-1:12,3:4-diepoxycembr-7-en-11-ol (incensole-oxide)	$C_{20}H_{34}O_3$	$[\alpha]^{25}_D$ −25 (*c* 0.2, MeOH)	MeOH: 204 (3.62) nm	Cytotoxicity HepG2 cells A549 cells BGC-823 cells	 Inactive Inactive Inactive	268
					Wound healing	Inactive	
1077	Populusene A	$C_{20}H_{32}O_3$	$[\alpha]^{20}_D$ +24.3 (*c* 0.037, MeOH)	MeOH: 233 (2.72), 200 (3.80) nm	Antiinflammatory (RAW 264.7 cells)	Active	270
1078	Populusin A	$C_{20}H_{32}O_4$	$[\alpha]^{20}_D$ –24.4 (*c* 0.041, MeOH)	MeOH: 273 (2.12), 220 (3.31), 206 (3.16) nm	Antiinflammatory (RAW 264.7 cells)	Active	270
1079	Euphraticanoid F	$C_{20}H_{34}O$	$[\alpha]^{20}_D$ –4.55 (*c* 0.07, MeOH)	MeOH: 198 (3.78) nm	Neuroprotective SH-SY5Y ceslls	 Inactive	269

1080	14-Hydroxy-7-oxo ester	$C_{21}H_{28}O_4$	-	-	-	-	271
1081	6,8,11,13-Abiteratrien-18-oic acid	$C_{20}H_{26}O_2$	-	-	-	-	271
1082	18-Norabieta-8,11,13-4-ol	$C_{21}H_{30}O_2$	-	-	-	-	271
1083	Abietane ester		-	-	-	-	271
158	Dehydroabietic acid	$C_{20}H_{28}O_2$	-	-	-	-	271
889	7-Oxo-dehydroabietic acid	$C_{20}H_{26}O_4$	-	-	-	-	271
1084	7*α*-Hydroxydehydroabietic acid	$C_{20}H_{28}O_3$	-	-	-	-	271
1085	7-Oxoabieta-8,11,13-trien-18-oate	$C_{21}H_{28}O_3$	-	-	-	-	271
1086	9,10-*seco*-Abieta-8,11,13-trien-18,10*α*-olide	$C_{20}H_{28}O_2$	-	-	Neuroprotective SH-SY5Y ceslls	Inactive	269
152	Pimaric acid	$C_{20}H_{30}O_2$	-	-	Neuroprotective SH-SY5Y ceslls	Inactive	269
1087	Euphraticanoid N	$C_{20}H_{30}O_3$	$[\alpha]^{20}_D$ –31.7 (*c* 0.05, MeOH)	MeOH: 202 (4.12) nm	Antiinflammatory (RAW 264.7 cells)	Active	272
1088	Euphraticanoid O	$C_{20}H_{26}O_3$	$[\alpha]^{20}_D$ +65.8 (*c* 0.05, MeOH)	MeOH: 207 (4.24), 245 (4.08) nm	Antiinflammatory (RAW 264.7 cells)	Inactivev	272
Triterpenoids							
1089	3-*epi*-*δ*-Amyrin	$C_{30}H_{50}O$	-	-	Neuroprotective HT-22 cells	Inactive	273
528	*α*-Boswellic acid	$C_{30}H_{48}O_3$	$[\alpha]^{25}_D$ +80.0 (*c* 0.25, $CHCl_3$)	EtOH: 205 nm	Neuroprotective HT-22 cells	Inactive	273
1090	11*α*-Ethoxy-*β*-boswellic acid		-	-	Neuroprotective HT-22 cells	Active	273
499	Acetyl-11-keto-*β*-boswellic acid	$C_{32}H_{48}O_5$	-	-	Neuroprotective HT-22 cells	Active	273
Nor-sesqi/diterpenoids							
1091	Euphraticanoid C	$C_{12}H_{18}O_2$	$[\alpha]^{20}_D$ –10.9 (*c* 0.06, MeOH)	MeOH: 257 (1.08) nm	Neuroprotective SH-SY5Y cells	Active	273
1092	Euphraticanoid D	$C_{12}H_{18}O_2$	$[\alpha]^{20}_D$ +83.9 (*c* 0.09, MeOH)	MeOH: 248 (1.14) nm	Neuroprotective SH-SY5Y cells	Active	273
1093	Euphraticanoid G	$C_{12}H_{20}O_2$	$[\alpha]^{20}_D$ –16.88 (*c* 0.08, MeOH)	MeOH: 196 (3.42) nm	-	-	269
1094	Euphraticanoid H	$C_{14}H_{22}O_3$	$[\alpha]^{20}_D$ –52.54 (*c* 0.08, MeOH)	MeOH: 235 (3.86) nm	Neuroprotective SH-SY5Y cells	Inactive	269
1095	4-Hydroxy-4,7-dimethyl-1-	$C_{32}H_{52}O_4$	-	-	Neuroprotective		269

	tetralone				SH-SY5Y cells	Active	
1096	Euphraticanoid I	$C_{11}H_{18}O_3$	$[\alpha]^{20}_D$ –4.94 (*c* 0.09, MeOH)	-	Neuroprotective SH-SY5Y cells	Active	269
1097	Populusone	$C_{17}H_{26}O_2$	-	-	Wound healing	Active at 10 µM	274
1098	5-(6-Isopropyl-2-methylnaphthalen-1-yl)pentan-2-one	$C_{19}H_{24}O$	-	MeOH: 230 (5.03), 280 (3.91), 325 (3.34) nm	Cytotoxicity HepG2 cells	Active	271
1099	19-*nor*-Abieta-4,6,8,11,13-penttaen-3-one	$C_{19}H_{22}O$	-	-	Cytotoxicity HepG2 cells	Active IC_{50}: 27.0 µM	271
1100	19-*nor*-Abieta-4(18),8,11,13-tetraen-7-one	$C_{19}H_{24}O$	-	-	-	-	271
1101	4,4a,9,10-Tetrahydro-1,4a-dimethyl-7-isopropyl-2(3H)-phenanthrone	$C_{19}H_{24}O$	-	-	-	-	271
1102	Methyl-13-acetyl-podocarpa-8,11,13-trien-18-oate	$C_{20}H_{26}O_3$	-	-	-	-	271
1103	Euphraticanoid E	$C_{19}H_{28}O_4$	$[\alpha]^{20}_D$ –34.88 (*c* 0.09, MeOH)	MeOH: 230 (3.92) nm	Neuroprotective SH-SY5Y ceslls	Inactive	269
1104	18-*nor*-Isopimara-8(14),15-dien-4*β*-ol	$C_{19}H_{30}O$	-	-	Neuroprotective SH-SY5Y ceslls	Inactive	269
1105	(*E*)-15,16-*bisnor*-Labda-8(17),11-diene-13-one	$C_{18}H_{28}O$	-	-	Neuroprotective SH-SY5Y ceslls	Inactive	269
1106	Euphraticanoid J	$C_{19}H_{24}O$	$[\alpha]^{20}_D$ +109.7 (*c* 0.05, MeOH)	MeOH: 275 (3.81), 228 (4.08), 210 (4.05) nm	Antiinflammatory (COX-2, iNOS)	Inactive	272
1107	Euphraticanoid K	$C_{19}H_{24}O_2$	$[\alpha]^{20}_D$ +73.2 (*c* 0.04, MeOH)	MeOH: 304 (3.58), 242 (3.85), 200 (4.07) nm	Antiinflammatory (COX-2, iNOS)	Inactive	272
1108	Euphraticanoid L	$C_{19}H_{30}O_2$	$[\alpha]^{20}_D$ +58.5 (*c* 0.05, MeOH)	MeOH: 200 (3.90) nm	Antiinflammatory (COX-2, iNOS)	Inactive	272
1109	Euphraticanoid M	$C_{19}H_{29}O_2$	$[\alpha]^{20}_D$ –4.9 (*c* 0.03, MeOH)	MeOH: 246 (4.19) nm	Antiinflammatory (COX-2, iNOS)	Dose dependent	272
1110	Euphraticanoid A	$C_{22}H_{34}O$	$[\alpha]^{20}_D$ +2.0 (*c* 0.1, MeOH)	MeOH: 256 (0.18) nm	Neuroprotective HT-22 cells	Inactive	273
1111	Euphraticanoid B	$C_{22}H_{34}O$	$[\alpha]^{20}_D$ +7.3 (*c* 0.06, MeOH)	MeOH: 238 (0.28) nm	-	-	273
1112	Populeuphroid L	$C_{22}H_{32}O$	-	-	Neuroprotective HT-22 cells	Inactive	273
232	Epimansumbinol	$C_{22}H_{36}O$	$[\alpha]^{24}_D$ –28.1 (*c* 1.0,	-	Neuroprotective		273

			MeOH)		HT-22 cells	Inactive	
1113	Mansumbin-13(17)-en-3,16-dione	$C_{22}H_{32}O_2$	-	-	Neuroprotective HT-22 cells SH-SY5Y cells	 Active Active	273
1114	3α-Acetoxy-mansumbin-13(17)-en-16-one	$C_{24}H_{36}O_3$	-	-	Neuroprotective HT-22 cells SH-SY5Y cells	 Active Active	273
Steroid							
1115	Ergosta-4,6,8(15),22-tetraen-3-one	$C_{28}H_{40}O$	-	-	-	-	273