

Table S1. Dereplication data of the major compounds of *A.awaomri* extracts.

Peak NO.	Retention Time	Molecular weight	Molecular Formula	Dereplication	ppm
1	6.186878889	214.1195336	C ₁₁ H ₁₈ O ₄	(+)-Hexylitaconic acid	-2.034112496
2	2.686255556	223.0469512	C ₁₀ H ₉ NO ₅	Pyranopyrrol A; Pyranonigrin A	-2.606245313
3	4.311357778	228.0887237	C ₁₃ H ₁₂ N ₂ O ₂	Aspernigrin A	-2.691734928
4	5.464542222	229.0728115	C ₁₃ H ₁₁ NO ₃	Tensidol A	-2.365009637
5	3.269691111	230.1144	C ₁₁ H ₁₈ O ₅	9-Hydroxy hexyl itaconic acid	-1.94570786
6	3.300735556	244.0935177	C ₁₁ H ₁₆ O ₆	Tensyuc acid A	-2.583427527
7	4.445455556	258.1092803	C ₁₂ H ₁₈ O ₆	Tensyuc acid B	-2.007405194
8	7.742335556	270.0517947	C ₁₅ H ₁₀ O ₅	5,7,10-Trihydroxy-2-methyl-1,4-anthraquinone; Hydroxyviocristine	-1.810021973
9	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	1,3-Bis(2,4-dihydroxyphenyl)-2-propen-1-one; 2,2',4,4'-Tetrahydroxychalcone	-1.637276459
10	3.905527778	274.0830401	C ₁₅ H ₁₄ O ₅	4-Carboxy-5,5'-dihydroxy-3,3'-dimethyldiphenyl ether	-1.983085166
11	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	5,10-Dihydroxy-7-methoxy-2-methyl-1,4-anthraquinone; Isoviocristin	2.667425325
12	5.375423333	286.0467082	C ₁₅ H ₁₀ O ₆	3,8-Dihydroxy-6-methyl-9-oxo-9H-xanthene-1-carboxylic acid	-1.712587766
13	4.448856667	287.1146162	C ₁₆ H ₁₇ NO ₄	Pyrophen	-2.096477456
14	4.634217778	288.0624062	C ₁₅ H ₁₂ O ₆	Funalenone; BMS-304245	-1.534444347
15	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Fonsecin; TMC-256B1	-1.814981697
16	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	Methyl-8-hydroxy-3-methoxy-6-methyl-9-oxo-9H-xanthene-1-carboxylate	-1.767996375
17	5.977473333	304.0935789	C ₁₆ H ₁₆ O ₆	Wentilactone A	-1.872564839
18	4.963763333	314.0416423	C ₁₆ H ₁₀ O ₇	1,6,8-Trihydroxy-3-methylanthraquinone-2-carboxylic acid; Endocrocic; Clavoxanthin	-1.498109775
19	6.429123333	316.0572073	C ₁₆ H ₁₇ BrN ₂	Arborescidine B	-0.926076015
20	5.502183333	318.072885	C ₁₆ H ₁₉ BrN ₂	Sydowinol	-1.659621168
21	7.194708889	328.0571787	C ₁₇ H ₁₂ O ₇	Aflatoxin-G1	-1.780443221
22	3.683658889	340.0571917	C ₁₈ H ₁₂ O ₇	Austocystin I	-1.679599034
23	0.637421111	342.1149483	C ₁₂ H ₂₂ O ₁₁	a,a'-Trehalose; Mycose; Parvulomycin	-2.114398625
24	5.514924444	343.104496	C ₁₈ H ₁₇ NO ₆	Tensidol B	-1.607029661
25	5.933335556	349.1795938	C ₂₁ H ₂₃ N ₃ O ₂	Demethoxyfumitremorgin C	1.614644499
26	8.481993333	356.0883034	C ₁₉ H ₁₆ O ₇	Butyrolactone II	-2.132986429
27	11.14120667	390.2044136	C ₂₂ H ₃₀ O ₆	Sequoiatone D	1.831686386
28	13.41267444	394.3236382	C ₂₈ H ₄₂ O	Delta 5,7,22,24(28)-Ergostatetraen-3beta-ol; 24-Dehydroergosterol	1.552280642
29	4.690672222	410.0989882	C ₂₂ H ₁₈ O ₈	Orlandin	-1.55919529
30	5.502183333	318.072885	C ₂₄ H ₃₄ O ₆	3-O-Demethylsulochrin	-1.659621168
31	3.527248889	448.0944792	C ₂₀ H ₂₀ N ₂ O ₈ S	Aspergillazine A	2.193188874
32	6.811742222	456.167542	C ₂₇ H ₂₄ N ₂ O ₅	Aspernigrin B	-2.143959123

33	6.065598889	466.1884386	C ₂₉ H ₂₆ N ₂ O ₄	Asterriquinone C-1	-0.59811
34	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	Aurasperone D	-0.115572775
35	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Aurasperone A; Aurosperone A	0.066935888
36	6.748234444	574.1471173	C ₃₁ H ₂₆ O ₁₁	Aurasperone F	0.253392576
37	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Aurasperone E; Fonsecinone D	0.212234299
38	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Rubasperone E	-0.593762309
39	6.208272222	592.1579714	C ₃₁ H ₂₈ O ₁₂	Aurasperone C	0.734335568
40	6.930204444	606.1735215	C ₃₂ H ₃₀ O ₁₂	Aurasperone B	0.552410826
41	10.49261222	726.395834	C ₃₇ H ₅₄ N ₆ O ₉	Aspergillicin B	1.578290327
42	6.186878889	214.1195336	C ₁₁ H ₁₈ O ₄	Citreoviral	-2.034112496
43	6.186878889	214.1195336	C ₁₁ H ₁₈ O ₄	Pestalotin; LL-P-880-a; PC-1	-2.034112496
44	6.186878889	214.1195336	C ₁₁ H ₁₈ O ₄	Citreodiol	-2.034112496
45	6.186878889	214.1195336	C ₁₁ H ₁₈ O ₄	Epicitreodiol	-2.034112496
46	5.464542222	229.0728115	C ₁₃ H ₁₁ NO ₃	Carbonarone A	-2.365009637
47	5.464542222	229.0728115	C ₁₃ H ₁₁ NO ₃	Carbonarone B	-2.365009637
48	4.023043333	244.1298474	C ₁₂ H ₂₀ O ₅	4-Oxododecandioic acid	-2.811620415
49	4.215942222	254.0568264	C ₁₅ H ₁₀ O ₅	Emodin	-2.13520039
50	7.742335556	270.0517947	C ₁₅ H ₁₀ O ₅	1,4,5-Trihydroxy-2-methylanthraquinone	-1.810021973
51	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	Griseoxanthone C	-1.637276459
52	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	Anhydrojavanicin; F5	-1.637276459
53	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	TMC-256A1	-1.637276459
54	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	TMC-256C1	-1.637276459
55	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	Isopestacin	-1.637276459
56	5.349277778	272.0674881	C ₁₅ H ₁₂ O ₅	Rubrofusarin; NSC-258316	-1.637276459
57	3.905527778	274.0830401	C ₁₅ H ₁₄ O ₅	Semi-Vioxanthin; A-73; 3,4-Dihydro-9,10-dihydroxy-7-methoxy-3-methyl-1H-naphtho[2,3-c]pyran-1-one	-1.983085166
58	3.905527778	274.0830401	C ₁₅ H ₁₄ O ₅	Corymbiferan lactone D	-1.983085166
59	3.905527778	274.0830401	C ₁₅ H ₁₄ O ₅	Citrinolactone C	-1.983085166
60	3.905527778	274.0830401	C ₁₅ H ₁₄ O ₅	10-Deoxy-gerfelin	-1.983085166
61	11.90724111	280.2391751	C ₁₈ H ₃₂ O ₂	Linoleic acid	-1.838619545
62	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	7,10-Dihydroxy-5-methoxy-2-methyl-1,4-anthraquinone; Viocristin	2.667425325
63	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	8-Hydroxy-6-methylxanthone-1-carboxylic acid methyl ester	2.667425325
64	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Physcion; Parietin; Rheochrysidin; Chrysorobin; Parmel yellow; Lichen-chrysophanic acid	2.667425325
65	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Anthragallol-1,2-dimethyl ether	2.667425325
66	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Anthragallol-1,3-dimethyl ether	2.667425325
67	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Anthragallol-2,3-dimethyl ether	2.667425325
68	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Questin; 1-Methyl-emodin	2.667425325
69	9.509498889	284.0686913	C ₁₆ H ₁₂ O ₅	Janthinone	2.667425325
70	5.375423333	286.0467082	C ₁₅ H ₁₀ O ₆	1,3,8-Trihydroxy-6-hydroxymethylanthraquinone; Citreorosein	-1.712587766

71	5.375423333	286.0467082	C ₁₅ H ₁₀ O ₆	1,4,5,7-Tetrahydroxy-2-methylanthraquinone; Catenarin	-1.712587766
72	5.375423333	286.0467082	C ₁₅ H ₁₀ O ₆	8-Hydroxygenistein	-1.712587766
73	4.634217778	288.0624062	C ₁₅ H ₁₂ O ₆	Anhydrofusarubin; F-6	-1.534444347
74	4.634217778	288.0624062	C ₁₅ H ₁₂ O ₆	Funalenone; BMS-304245	-1.534444347
75	4.634217778	288.0624062	C ₁₅ H ₁₂ O ₆	Monodictyphenone; 2-(2,6-Dihydroxybenzoyl)-3-hydroxy-5-methylbenzoic acid	-1.534444347
76	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Altenusin; Demethylbotrallin	-1.814981697
77	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Javanicin; Solanione; F4	-1.814981697
78	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Corymbiferan lactone C	-1.814981697
79	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Citrinolactone A	-1.814981697
80	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Methyl 6-acetyl-4-methoxy-7,8-dihydroxynaphthalene-2-carboxylate	-1.814981697
81	4.268232222	290.0779718	C ₁₅ H ₁₄ O ₆	Methyl 6-acetyl-4-methoxy-5,8-dihydroxynaphthalene-2-carboxylate	-1.814981697
82	9.043146667	296.2340654	C ₁₈ H ₃₂ O ₃	(1S,2R)-3-Oxo-2-pentylcyclopentane-1-octanoic acid	-1.814981697
83	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	Sydowinin A	-1.512842603
84	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	Carviolin; Roseopurpurin	-1.767996375
85	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	Catenarin-5-methylether; Rubrocristin	-1.767996375
86	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	Erythroglaucin; Catenarin-7-methylether	-1.767996375
87	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	w-Hydroxyemodin-5-methylether; Questinol	-1.767996375
88	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	psi-Tectorigenin	-1.767996375
89	3.879251111	300.0623177	C ₁₆ H ₁₂ O ₆	1,3-Dihydroxy-6-hydroxymethyl-7-methoxyanthraquinone	-1.767996375
90	5.977473333	304.0935789	C ₁₆ H ₁₆ O ₆	Javanicin 8-methyl ether; 8-O-Methyljavanicin	-1.872564839
91	5.977473333	304.0935789	C ₁₆ H ₁₆ O ₆	8-Hydroxy-2,5-dimethoxy-6-methyl-7-(2-oxopropyl)-1,4-naphthoquinone; 5-O-Methyljavanicin	-1.872564839
92	6.038056667	312.1198602	C ₁₅ H ₂₀ O ₇	3 α ,4 β ,7 α ,15-Tetrahydroxy-12,13-epoxytrichothec-9-en-8-one; 3 α ,4 β ,7 α ,15-Tetrahydroxyscirp-9-ene-8-one; Nivalenol	-1.611314228
93	8.99525	313.1782478	C ₁₈ H ₂₃ N ₃ O ₂	Cyclo(D-N-Methyl-Leu-L-Trp)	-0.764100827
94	4.963763333	314.0416423	C ₁₆ H ₁₀ O ₇	8-(Methoxycarbonyl)-1-hydroxy-9-oxo-9H-xanthene-3-carboxylic acid	-1.498109775
95	6.429123333	316.0572073	C ₁₆ H ₁₂ O ₇	MS-347B; Sydowinin B	-1.757663742
96	6.429123333	316.0572073	C ₁₆ H ₁₂ O ₇	3',4',5',7-Tetrahydroxy-8-methoxyisoflavone	-1.757663742
97	6.429123333	316.0572073	C ₁₆ H ₁₂ O ₇	MS-347A; Sydowinin A	-1.757663742
98	6.429123333	316.0572073	C ₁₆ H ₁₂ O ₇	Fusidienol	-1.757663742
99	5.502183333	318.072885	C ₁₆ H ₁₄ O ₇	3-O-Demethylsulochrin	-0.83308311
100	5.502183333	318.072885	C ₁₆ H ₁₄ O ₇	F-390-C	-0.83308311
101	4.318643333	324.0623487	C ₁₈ H ₁₂ O ₆	Sterigmatocystin; 3 α ,12 ϵ -Dihydro-8-hydroxy-6-methoxyfuro-[3',2':4,5]-furo[3,2-c]xanthen-7-one	-1.541371891
102	4.318643333	324.0623487	C ₁₈ H ₁₂ O ₆	2,5-Dihydroxy-3-(3,4-dihydroxyphenyl)-6-phenyl-1,4-benzoquinone	-1.541371891
103	8.481993333	356.0883034	C ₁₉ H ₁₆ O ₇	Oxisterigmatocystin C	-2.132986429
104	9.601581111	362.1729657	C ₂₀ H ₂₆ O ₆	Gibberellin A38	1.565476221
105	4.545436667	366.0890336	C ₁₆ H ₁₈ N ₂ O ₆ S	p-Hydroxypenicillin V	2.776654456
106	4.417307778	380.1460801	C ₁₉ H ₂₄ O ₈	3,15-Diacetyldeoxynivalenol	-1.309559599

107	4.318643333	324.0623487	C ₁₈ H ₁₂ O ₆	SMA-76a; Pre-bikaverin	-1.541371891
108	7.194708889	328.0571787	C ₁₇ H ₁₂ O ₇	Aflatoxin-M1; Milk toxin	-1.780443221
109	7.194708889	328.0571787	C ₁₇ H ₁₂ O ₇	4-Hydroxyaflatoxin B1; Aflatoxin M4	-1.780443221
110	7.194708889	328.0571787	C ₁₇ H ₁₂ O ₇	5-Acetyl-2-methoxy-1,4,6-trihydroxy-anthraquinone	-1.780443221
111	8.163461111	334.1414991	C ₁₈ H ₂₂ O ₆	Chermesinone C	1.198811044
112	8.163461111	334.1414991	C ₁₉ H ₁₈ N ₄ O ₂	Penidiamide	1.198811044
113	3.574207778	338.1352404	C ₁₇ H ₂₂ O ₇	15-Acetyldeoxynivalenol; 15-Acetylvomitoxin	-2.285543331
114	3.574207778	338.1352404	C ₁₇ H ₂₂ O ₇	3-Acetyldeoxynivalenol	-2.285543331
115	3.683658889	340.0571917	C ₁₈ H ₁₂ O ₇	Versicolorin-B; 2,3-Bistetrahydrofurano-1,6,8-trihydroxyanthraquinone	-1.679599034
116	3.683658889	340.0571917	C ₁₈ H ₁₂ O ₇	2,5-Dihydroxy-3-phenyl-6-(3,4,5-trihydroxyphenyl)-1,4-benzoquinone	-1.679599034
117	4.417307778	380.1460801	C ₁₉ H ₂₄ O ₈	4,15-Diacetoxy-7-deoxynivalenol; 4,15-DA-7-DON; 8-Oxo-diacetoxyscirpenol	-1.309559599
118	8.977685556	380.1623346	C ₂₃ H ₂₄ O ₅	Rotiorin	1.31689476
119	8.977685556	380.1623346	C ₂₃ H ₂₄ O ₅	Folipastatin	1.31689476
120	8.977685556	380.1623346	C ₂₃ H ₂₄ O ₅	Isorotiorin	1.31689476
121	8.977685556	380.1623346	C ₂₃ H ₂₄ O ₅	Dicitrinin A; Penicitrinone A	1.31689476
122	11.14120667	390.2044136	C ₂₂ H ₃₀ O ₆	Sequoiatone D	1.831686386
123	11.14120667	390.2044136	C ₂₂ H ₃₀ O ₆	Sequoiatone E	1.831686386
124	10.29125556	396.2875531	C ₂₃ H ₄₀ O ₅	Radclonic acid	1.308521235
125	4.690672222	410.0989882	C ₂₂ H ₁₈ O ₈	Isokotanin-C	-1.55919529
126	12.67134444	418.2353079	C ₂₄ H ₃₄ O ₆	1-Hydroxyxanthone A	0.738613707
127	12.67134444	418.2353079	C ₂₄ H ₃₄ O ₆	1-Hydroxyxanthone C	0.738613707
128	6.893327778	438.1317197	C ₂₄ H ₂₂ O ₈	Kotanin	1.807427757
129	6.893327778	438.1317197	C ₂₄ H ₂₂ O ₈	Isokotanin-A	1.807427757
130	10.05631889	440.2579025	C ₂₈ H ₃₂ N ₄ O	Communesin F	1.886947543
131	6.065598889	466.1884386	C ₂₉ H ₂₆ N ₂ O ₄	Asterriquinone C-1	-0.598114003
132	6.065598889	466.1884386	C ₂₉ H ₂₆ N ₂ O ₄	IFO 8835-12; Asterriquinone B-3	-0.598114003
133	6.15865	476.1097744	C ₂₆ H ₂₀ O ₉	Xanthoviridicatin D	-0.877967064
134	7.084351111	490.1254587	C ₂₇ H ₂₂ O ₉	Xanthoradone A	-0.739176998
135	7.084351111	490.1254587	C ₂₇ H ₂₂ O ₉	Xanthoradone B	-0.739176998
136	7.885167778	514.255712	C ₂₉ H ₃₈ O ₈	Citreohybridone B	-0.809654911
137	7.885167778	514.255712	C ₂₉ H ₃₈ O ₈	Isocitreohybridone-B	-0.809654911
138	6.640216667	530.250546	C ₂₉ H ₃₈ O ₉	Isocitreohybridone I	-0.937291886
139	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	Asperpyrone A	-0.942448585
140	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	8'-O-demethylnigerone	-0.942448585
141	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	8'-O-demythylisonigerone	-0.942448585
142	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	Rubasperone D	-0.942448585
143	7.408108889	556.1363429	C ₃₁ H ₂₄ O ₁₀	Rubasperone A	-0.942448585
144	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Aurasperone A; Aurosperone A	0.066935888
145	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Fonsecinone A	0.066935888

146	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Isoaurasperone A; Isoaurasperone	0.066935888
147	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Isonigerone	0.066935888
148	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Nigerone	0.066935888
149	8.672912222	570.1520954	C ₃₂ H ₂₆ O ₁₀	Asperinine A	0.066935888
150	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Aurasperone E; Fonsecinone D	0.212234299
151	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Fonsecinone B	0.212234299
152	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Fonsecinone C	0.212234299
153	7.65343	588.1627467	C ₃₂ H ₂₈ O ₁₁	Rubasperone F	0.212234299
154	6.930204444	606.1735215	C ₃₂ H ₃₀ O ₁₂	Nigerasperone B	0.552410826

Table S2. Induced (up regulated) metabolites in *A. awamori* upon fermentation in four different media.

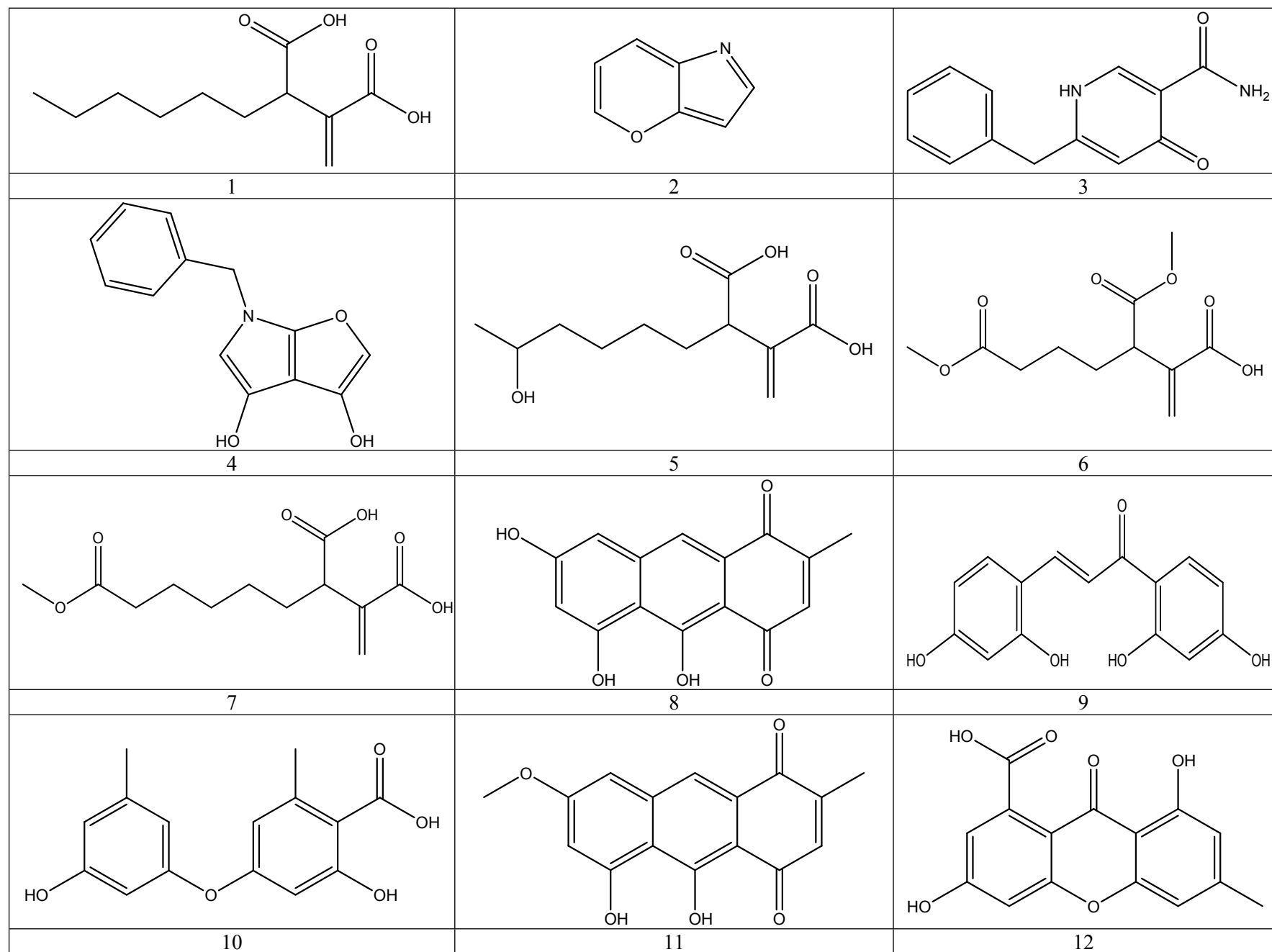
No.	Metabolite	Retention Time	VIP score*	Accurate Mass	Molecular Formula	Chemical class
	NA					
130	Communesin F	10.05631889	1.1	440.2579	C ₂₈ H ₃₂ N ₄ O	Alkaloids
41	Aspergillicin B	10.49261222	1.3	726.3958	C ₃₇ H ₅₄ N ₆ O ₉	Peptide
	MDA					
11	Isoviocristin	9.509498889	1.1	284.0686	C ₁₆ H ₁₂ O ₅	Anthraquinone
17	Wentilactone A	5.977473333	1.12	304.0935	C ₁₆ H ₁₆ O ₆	Polyketide
93	cyclo(D-N-Methyl-Leu-L-Trp)	8.99525	1.14	313.1782	C ₁₈ H ₂₃ N ₃ O ₂	Alkaloids
95	Sydowinin B	6.429123333	1.14	316.0572	C ₁₆ H ₁₂ O ₇	Polyketide
23	Parvulomycin	0.637421111	1.1	342.1149	C ₁₂ H ₂₂ O ₁₁	Polyketide
124	Radiclonic acid	10.29125556	1.1	396.2875	C ₂₃ H ₄₀ O ₅	Fatty acid
133	Xanthoviridicatin D	6.15865	1.1	476.1097	C ₂₆ H ₂₀ O ₉	Polyketide
	RG					
2	Pyranonigrin A	2.684445556	1.15	223.0469	C ₁₀ H ₉ NO ₅	Alkaloids
5	9-Hydroxyhexyl itaconic acid	3.269691111	1.15	230.1144	C ₁₁ H ₁₈ O ₅	Fatty acid
6	Tensyuic acid A	3.300735556	1.2	244.0935	C ₁₁ H ₁₆ O ₆	Fatty acid
48	4-Oxododecandioic acid	4.023043333	1.5	244.1298	C ₁₂ H ₂₀ O ₅	Fatty acid
7	Tensyuic acid B	4.445455556	1.16	258.1092	C ₁₂ H ₁₈ O ₆	Fatty acid
10	4-Carboxy-5,5'-dihydroxy-3,3'-dimethyldiphenyl ether	3.905527778	1.16	274.0830	C ₁₅ H ₁₄ O ₅	Polyketide
61	Linoleic acid	11.90724111	1.16	280.2391	C ₁₈ H ₃₂ O ₂	Fatty acid
71	Catenarin	5.375423333	1.16	286.0467	C ₁₅ H ₁₀ O ₆	Anthraquinone
13	Pyrophen	4.448856667	1.13	287.1146	C ₁₆ H ₁₇ NO ₄	Polyketide
82	(1S,2R)-3-Oxo-2-pentylcyclopentane-1-octanoic acid	9.043146667	1.13	296.2340	C ₁₈ H ₃₂ O ₃	Fatty acid
92	Nivalenol	6.038056667	1.14	312.1198	C ₁₅ H ₂₀ O ₇	Polyketide
94	8-(Methoxycarbonyl)-1-hydroxy-9-oxo-9H-xanthene-3-carboxylic acid	4.963763333	1.2	314.0416	C ₁₆ H ₁₀ O ₇	Polyketide
101	Sterigmatocystin	4.318643333	1.15	324.0623	C ₁₈ H ₁₂ O ₆	Polyketide
21	Aflatoxin-G1	7.194708889	1.16	328.0571	C ₁₇ H ₁₂ O ₇	Polyketide
113	15-Acetylvomitoxin	3.574207778	1.16	338.1352	C ₁₇ H ₂₂ O ₇	Polyketide
22	Austocystin I	3.683658889	1.15	340.0571	C ₁₈ H ₁₂ O ₇	Polyketide
25	demethoxyfumitremorgin C	5.933335556	1.15	349.1795	C ₂₁ H ₂₃ N ₃ O ₂	Alkaloids
105	p-Hydroxypenicillin V	4.545436667	1.14	366.0890	C ₁₆ H ₁₈ N ₂ O ₆ S	Peptide
106	3,15-Diacetyldeoxynivalenol	4.417307778	1.15	380.1460	C ₁₉ H ₂₄ O ₈	Polyketide
125	Isokotanin-C	6.893327778	1.14	410.0989	C ₂₂ H ₁₈ O ₈	Polyketide
128	Kotanin	6.893327778	1.16	438.1317	C ₂₄ H ₂₂ O ₈	Polyketide
31	Aspergillazine A	3.527248889	1.15	448.0944	C ₂₀ H ₂₀ N ₂ O ₈ S	Polyketide

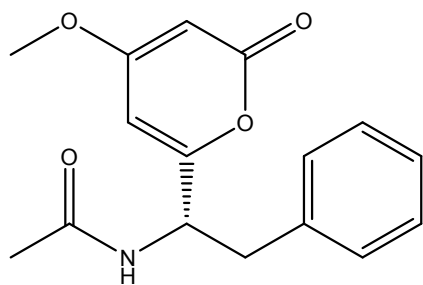
32	Aspernigrin B	6.811742222	1.16	456.1675	C ₂₇ H ₂₄ N ₂ O ₅	Alkaloids
144	Aurasperone A	8.672912222	1.14	570.1521	C ₃₂ H ₂₆ O ₁₀	Polyketide
TSA						
111	Chermesinone C	11.90724111	1.4	334.1415	C ₁₈ H ₂₂ O ₆	Polyketide
104	Gibberellin A38	11.90724111	1.4	362.1729	C ₂₀ H ₂₆ O ₆	Polyketide
118	Rotiorin	8.977685556	1.4	380.1623	C ₂₃ H ₂₄ O ₅	Polyketide
27	Sequoiatone D	11.14120667	1.1	390.2044	C ₂₂ H ₃₀ O ₆	Polyketide
126	1-Hydroxyyanuthone A	12.67134444	1.4	418.2353	C ₂₄ H ₃₄ O ₆	Polyketide

Table S3. Induced (up-regulated) metabolites in *A. awamori* upon epigenetic modifier treatment.

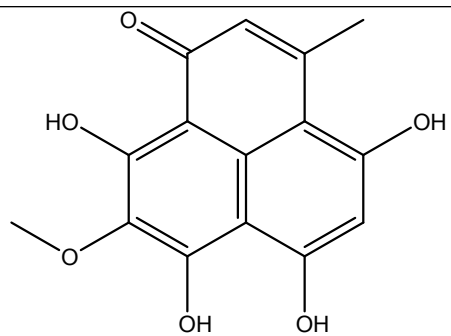
No.	Metabolite	Retention Time	VIP score*	Accurate Mass	Molecular Formula	Chemical class
Valp.						
2	Pyranonigrin A	2.684445556	1.8	223.0469	C ₁₀ H ₉ NO ₅	Alkaloids
Tric.						
5	9-Hydroxyhexyl itaconic acid	3.269691111	1.1	230.1144	C ₁₁ H ₁₈ O ₅	Fatty acid
33	Asterriquinone C	6.065598889	1.12	466.1884	C ₂₉ H ₂₆ N ₂ O ₄	Indol alkaloids
Nic.						
3	Aspernigrin A	4.311357778	1.1	228.0887	C ₁₃ H ₁₂ N ₂ O ₂	Alkaloids
4	Tensidol A	5.464542222	1.2	229.0728	C ₁₃ H ₁₁ NO ₃	Polyketide
9	1,3-Bis(2,4-dihydroxyphenyl)-2-propen-1-one; 2,2',4,4'-Tetrahydroxychalcone	5.349277778	1.9	272.0674	C ₁₅ H ₁₂ O ₅	Polyketide
12	3,8-Dihydroxy-6-methyl-9-oxo-9H-xanthene-1-carboxylic acid	5.375423333	1.2	285.0759	C ₁₅ H ₁₀ O ₆	Polyketide
17	Wentilactone A	5.977473333	1.1	304.0935	C ₁₆ H ₁₆ O ₆	Polyketide
93	cyclo(D-N-Methyl-Leu-L-Trp)	8.99525	1.3	313.1782	C ₁₈ H ₂₃ N ₃ O ₂	Alkaloids
95	Sydowinin B	6.429123333	1.1	316.0572	C ₁₆ H ₁₂ O ₇	Polyketide
103	Oxisterigmatocystin C	8.481993333	1.1	356.0883	C ₁₉ H ₁₆ O ₇	Polyketide
134	Xanthoradone A	7.084351111	1.1	490.1254	C ₂₇ H ₂₂ O ₉	Polyketide
140	8'-O-demethylnigerone	7.138187778	1.9	556.1363	C ₃₁ H ₂₄ O ₁₀	Dimeric naphtho- γ -pyrones
Aza						
27	Sequoiatone D	11.14120667	1.9	390.2044	C ₂₂ H ₃₀ O ₆	Polyketide
36	Aurasperone F	6.748234444	1.9	574.1471	C ₃₁ H ₂₆ O ₁₁	Polyketide
39	Aurasperone C	6.208272222	1.2	592.1579	C ₃₁ H ₂₈ O ₁₂	Polyketide

Figure S1. Structures of predicted chemical formulas of induced metabolites of *A. awamori* extracts

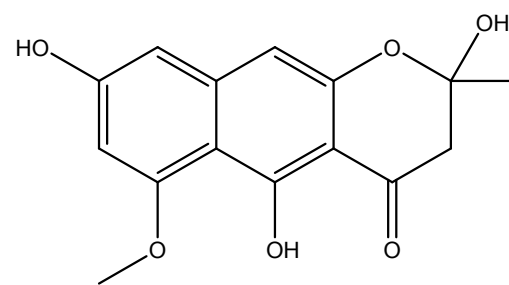




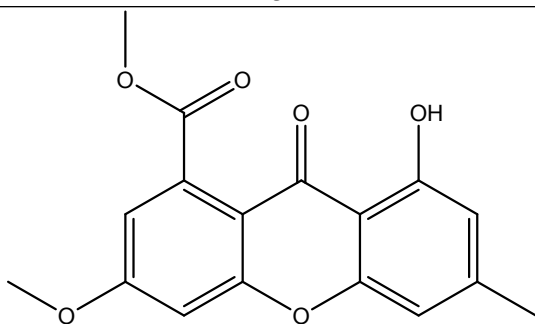
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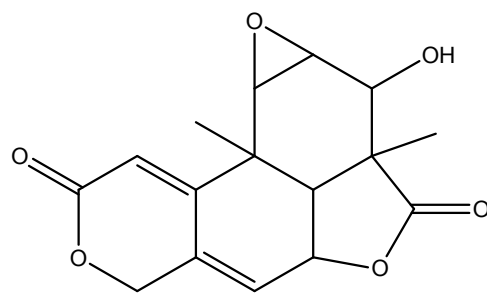
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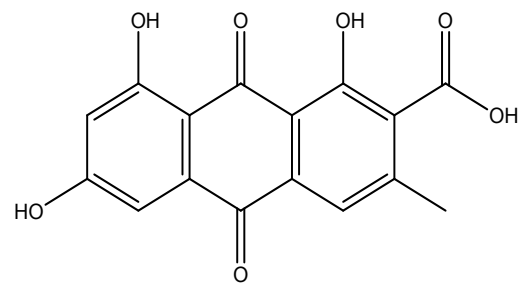
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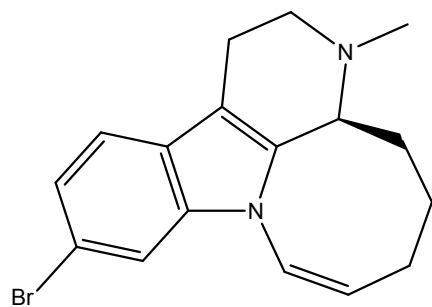
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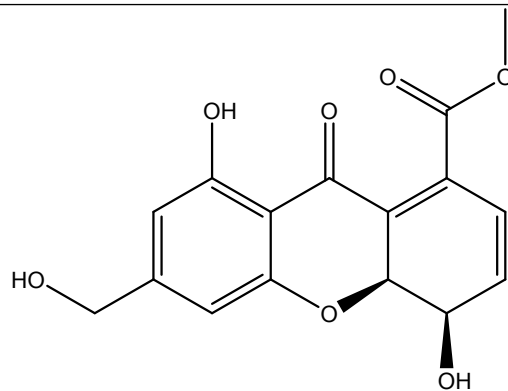
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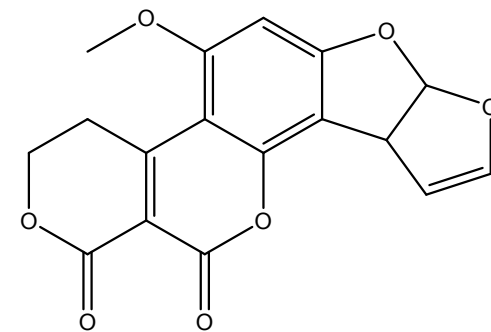
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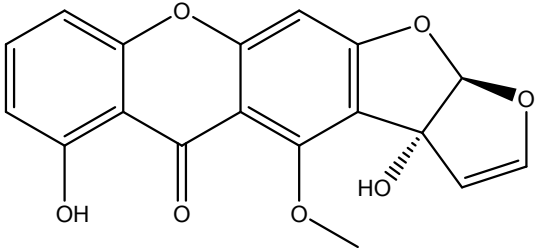
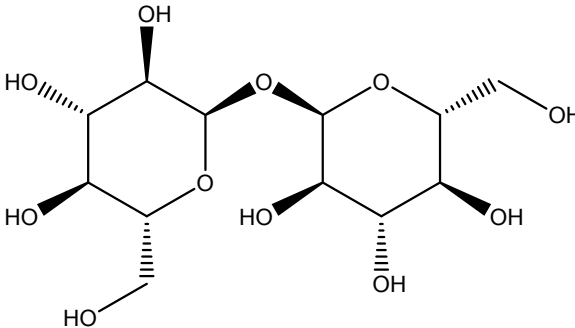
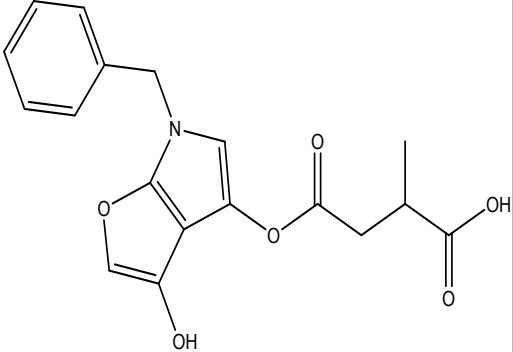
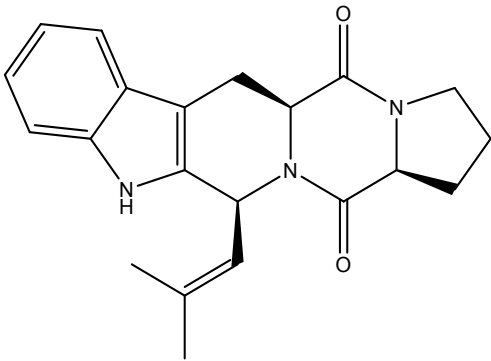
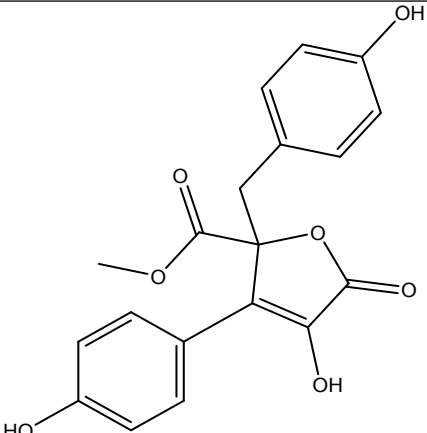
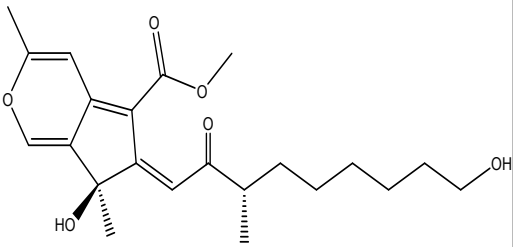
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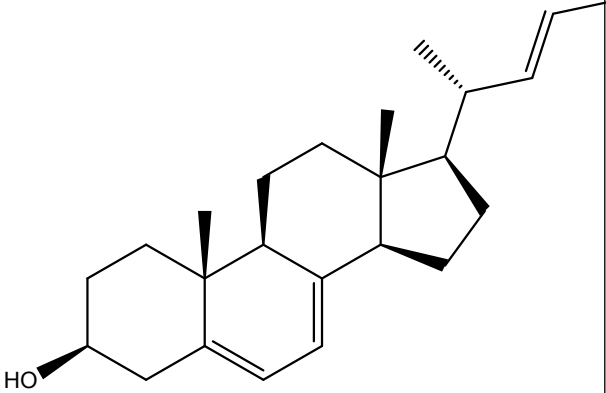
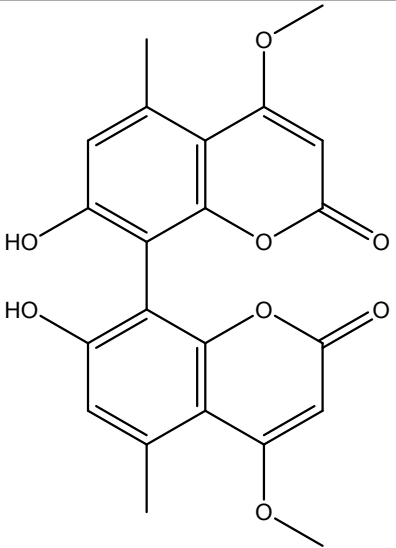
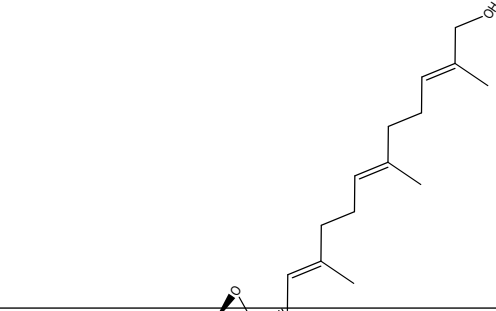
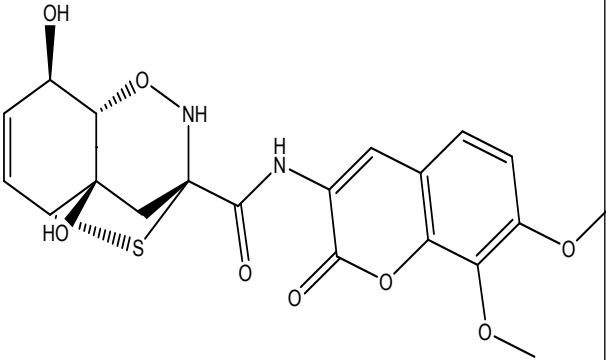
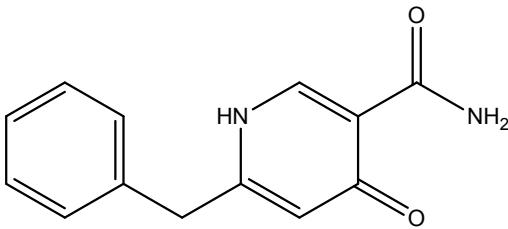
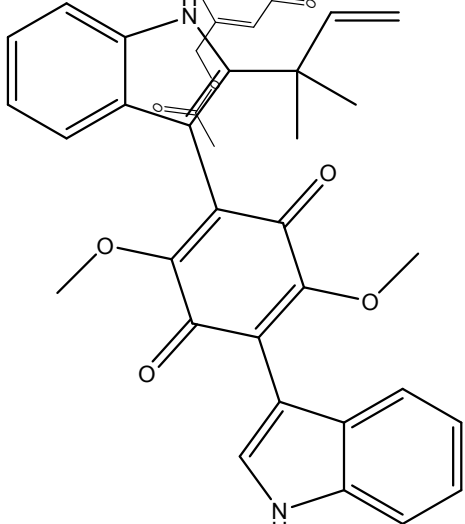


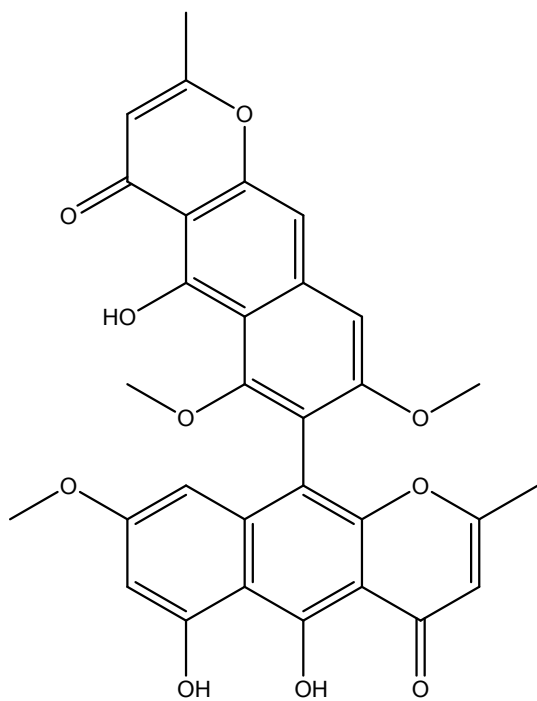
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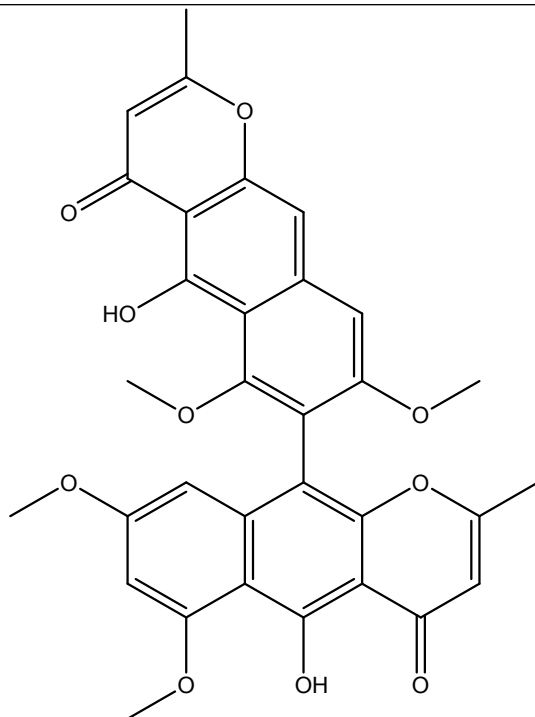
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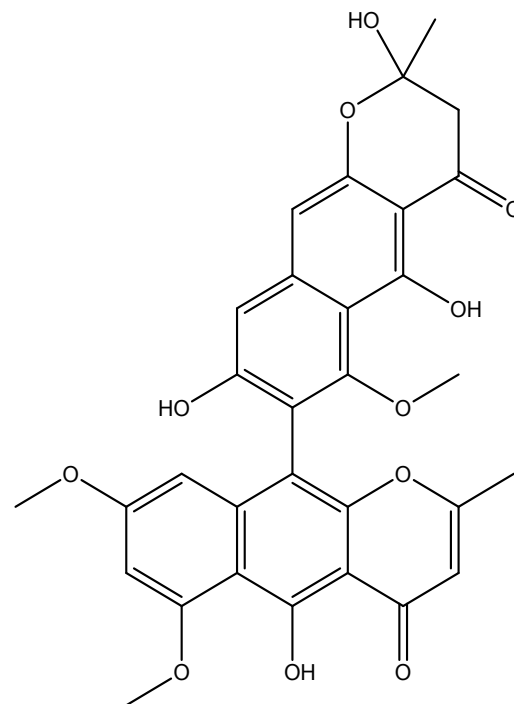
		
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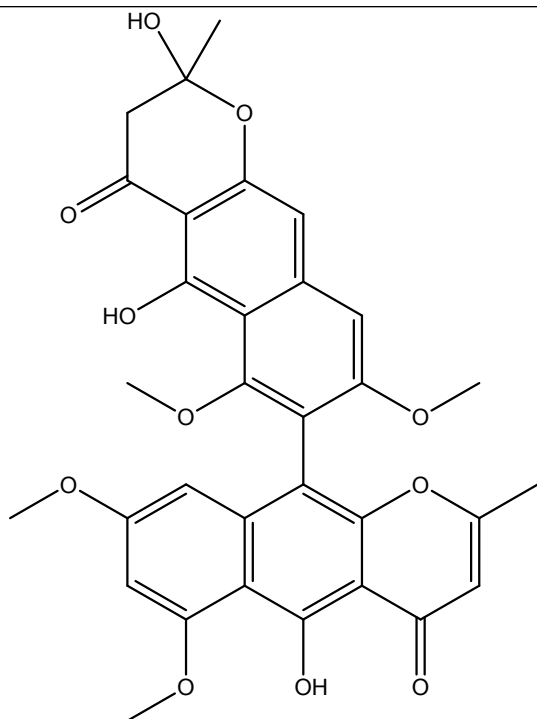
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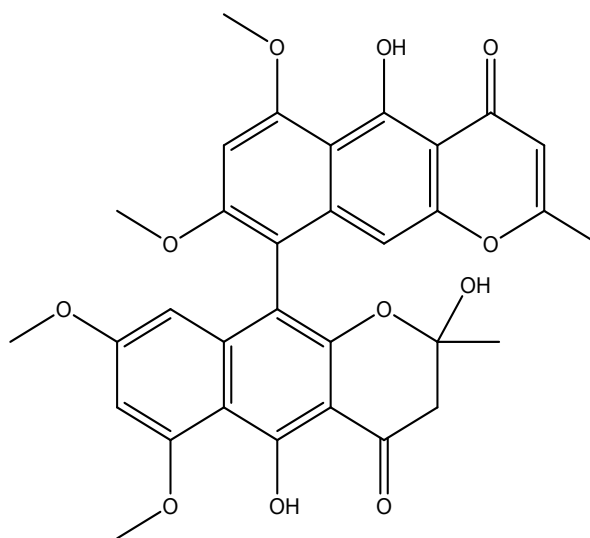
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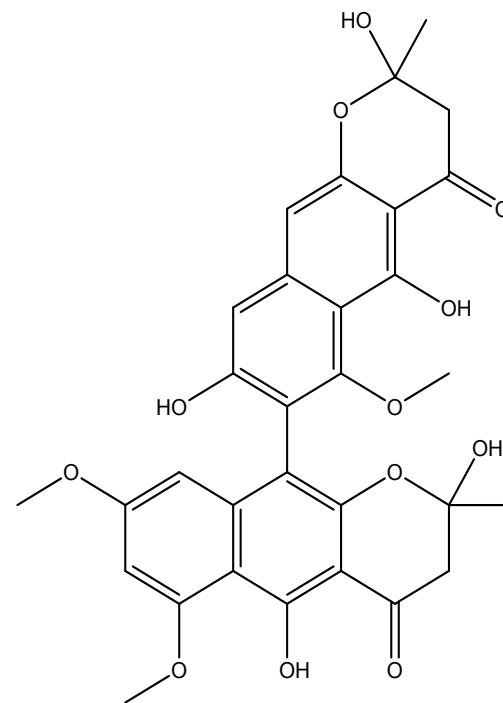
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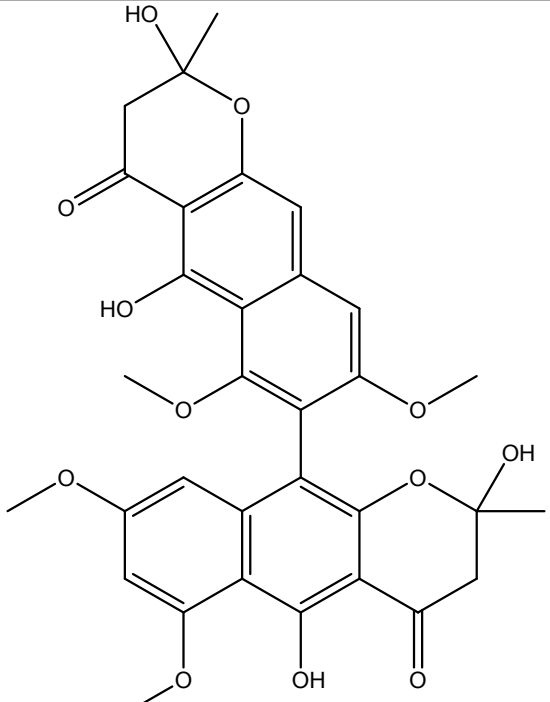
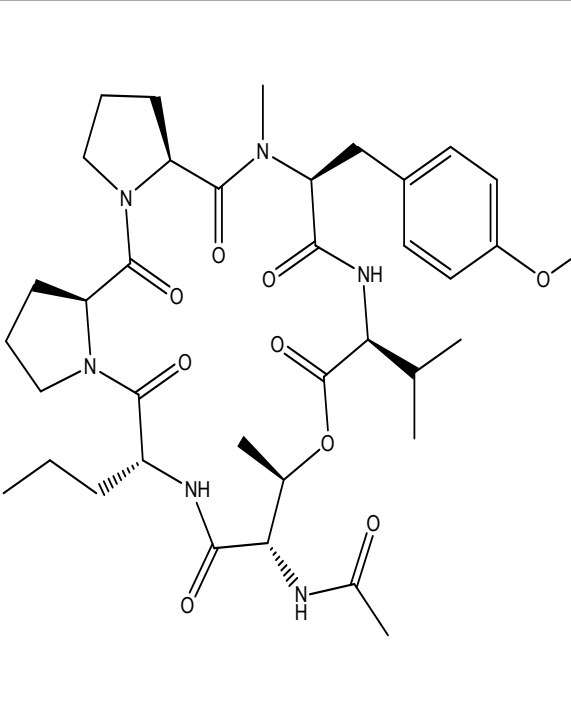
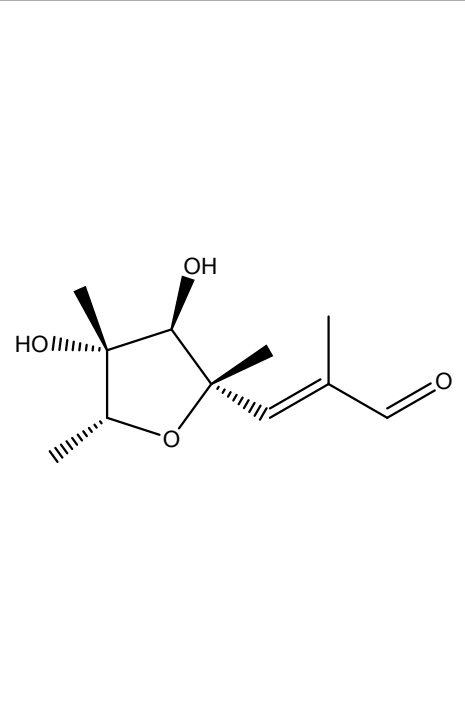
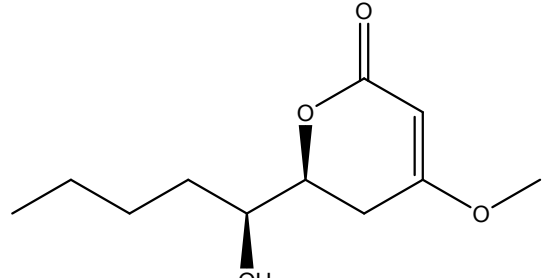
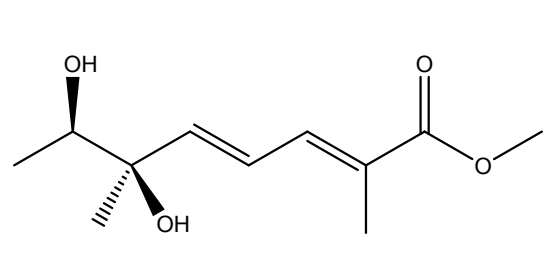
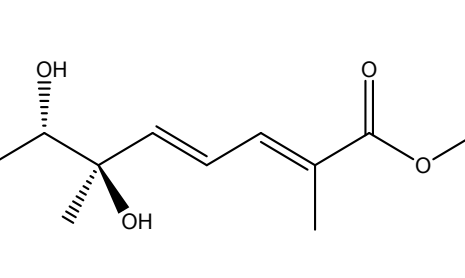
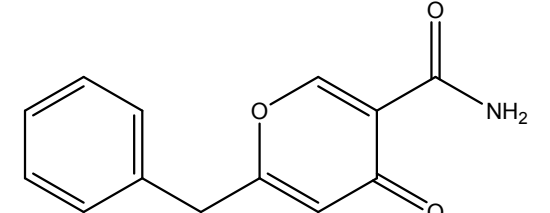
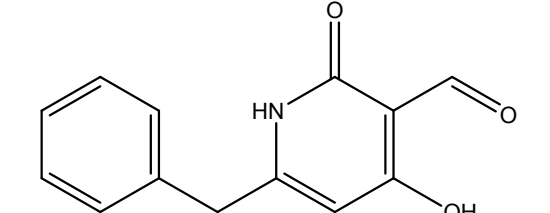
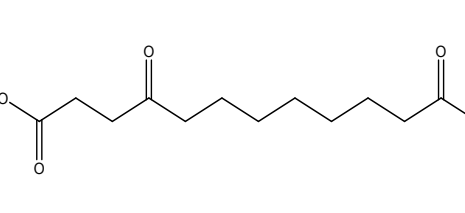
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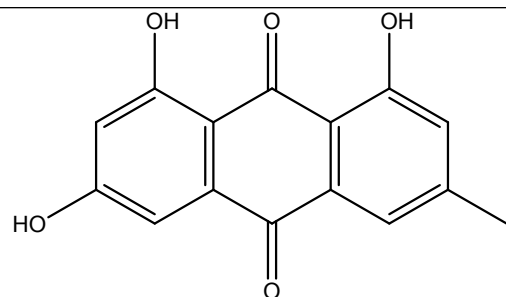


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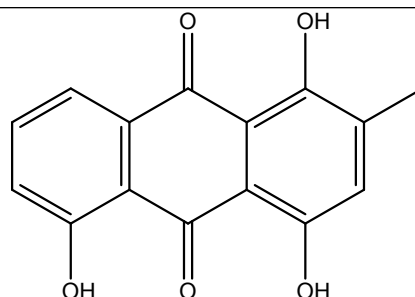


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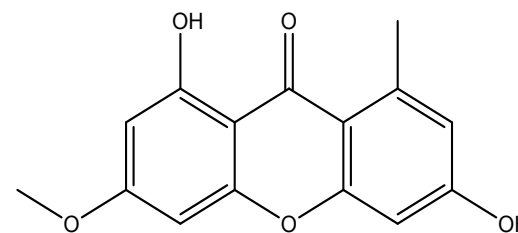
		
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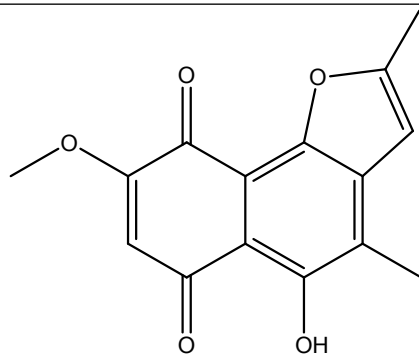
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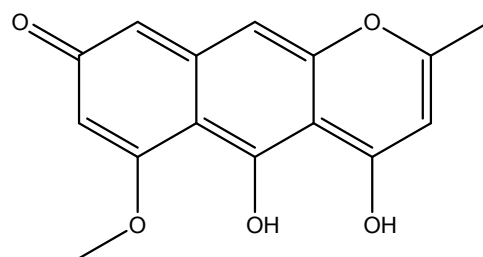
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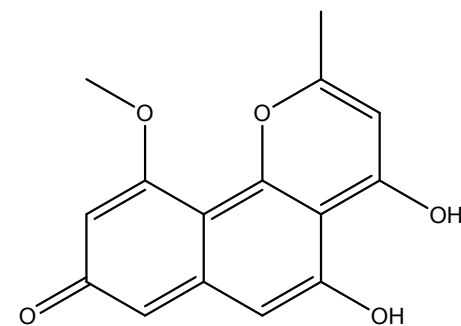
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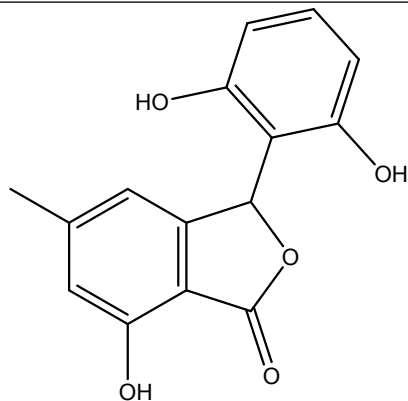
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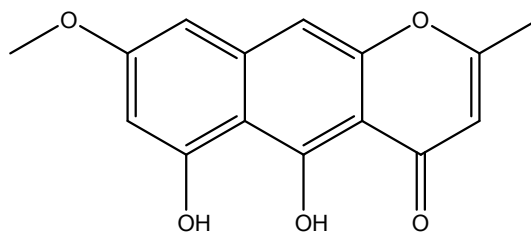
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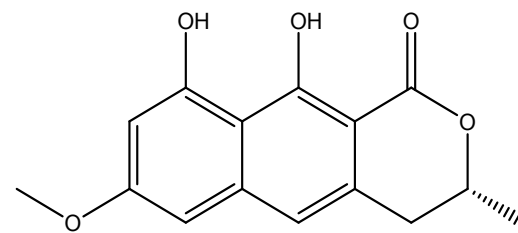
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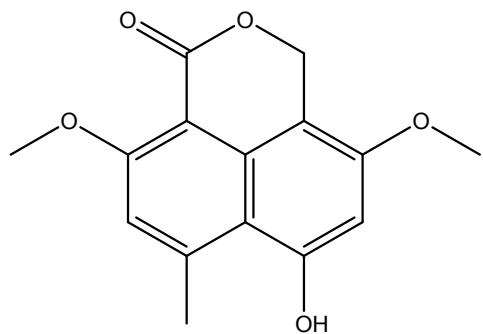
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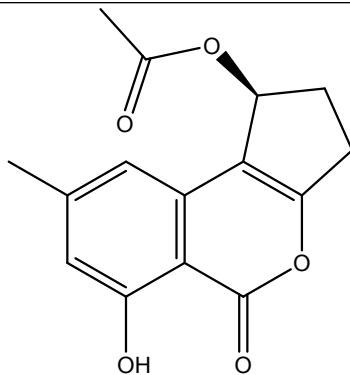
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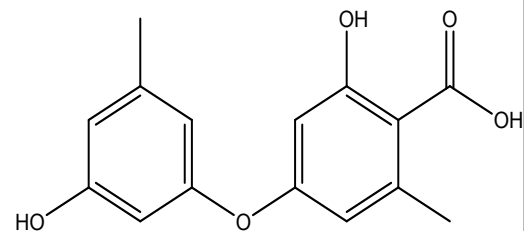
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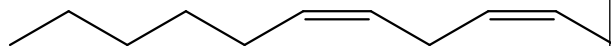
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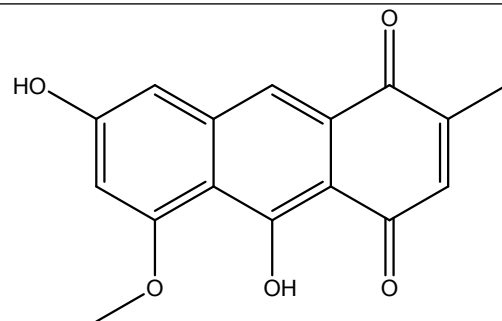
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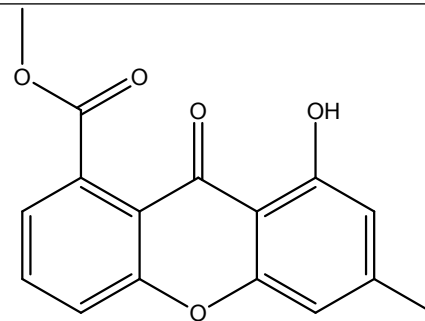
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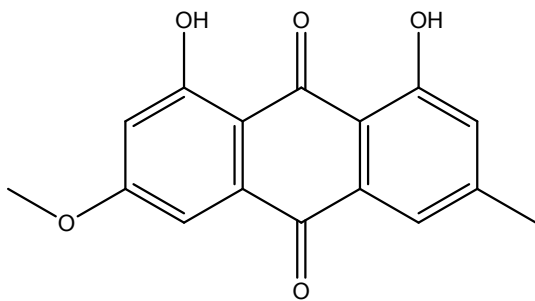
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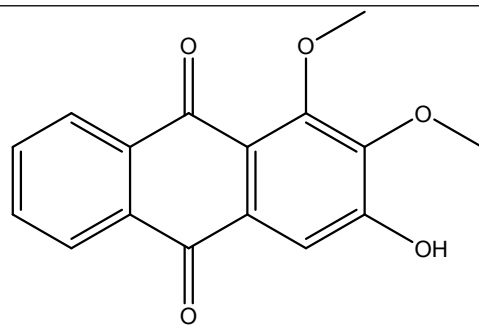
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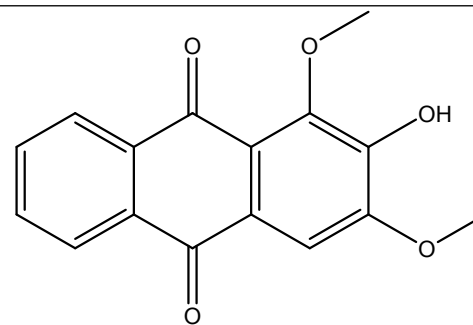
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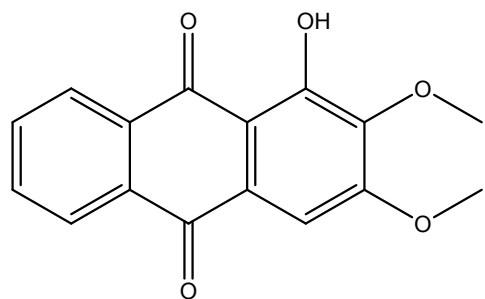
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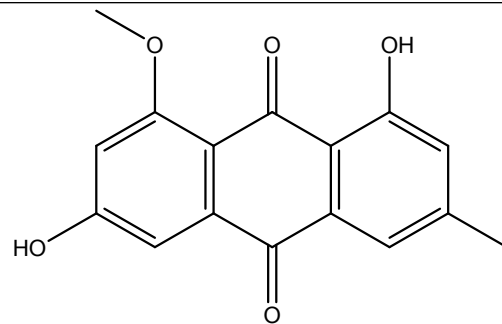
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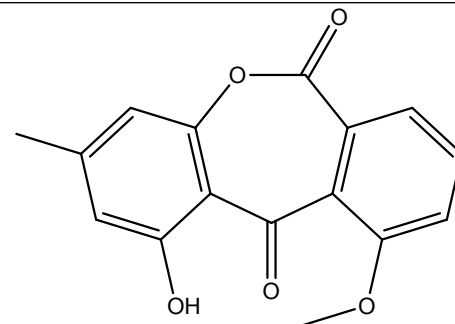
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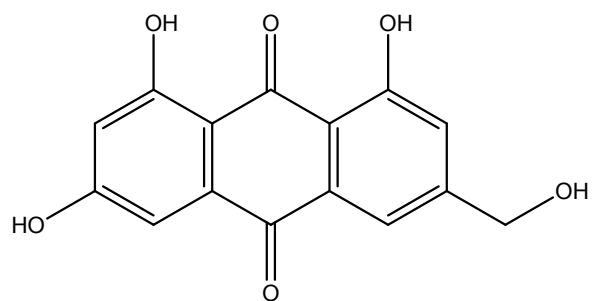
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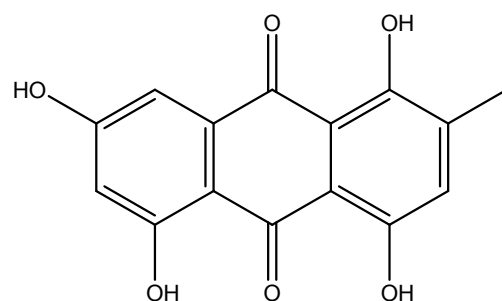
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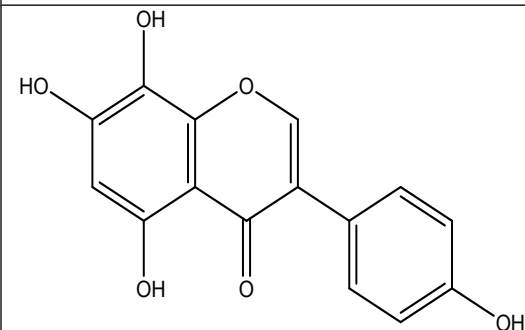
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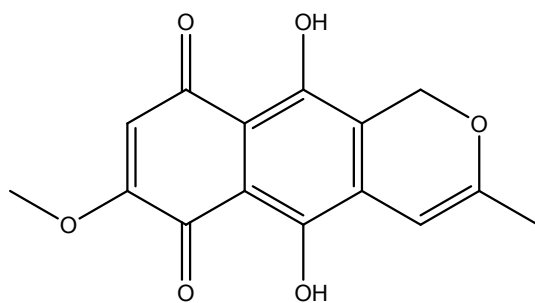
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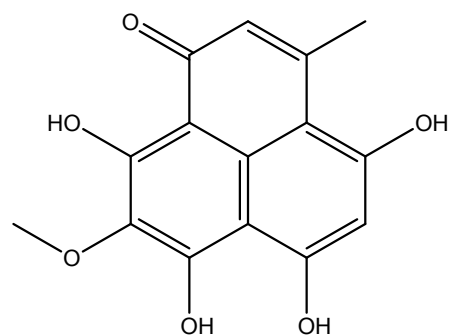
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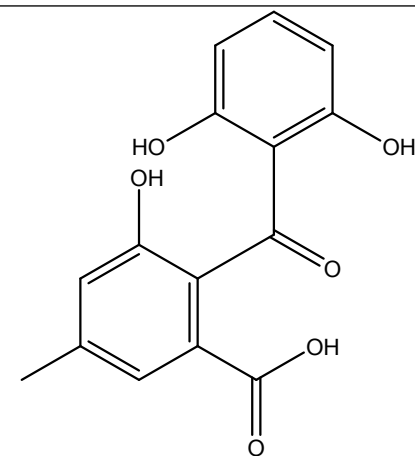
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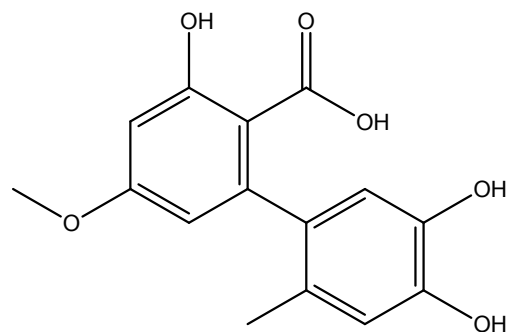
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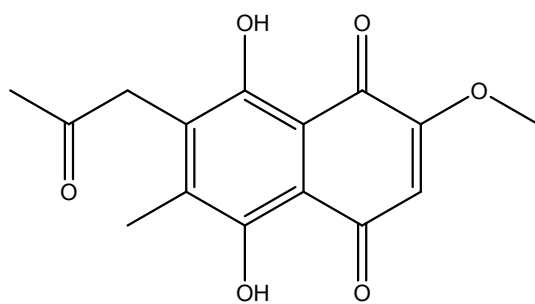
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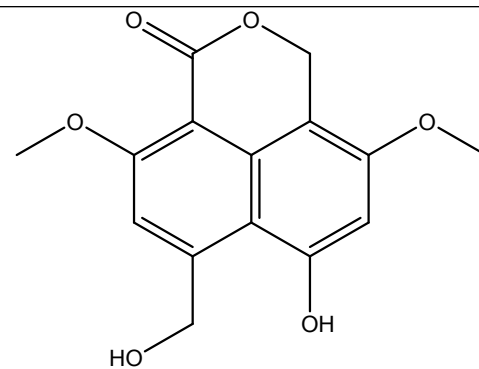
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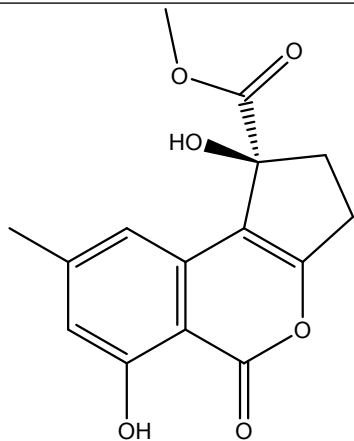
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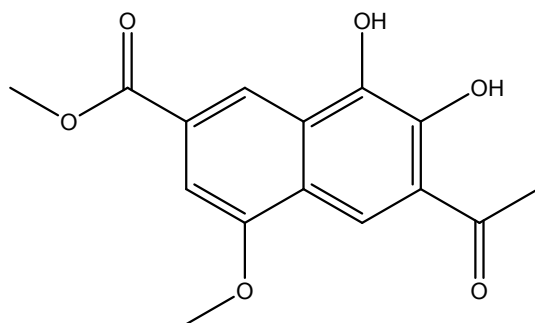
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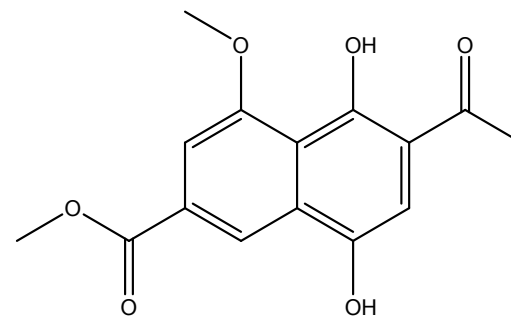
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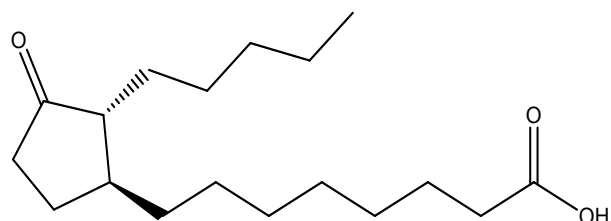
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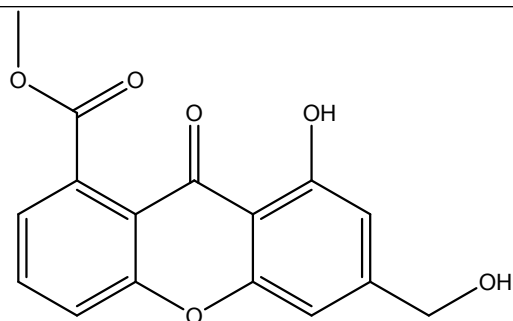
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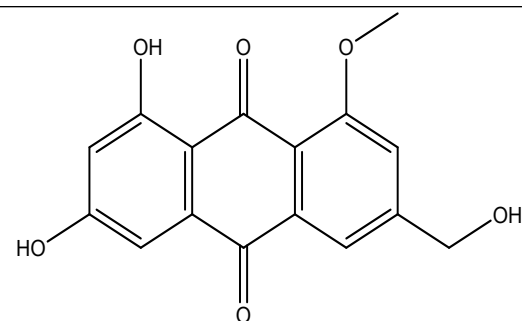
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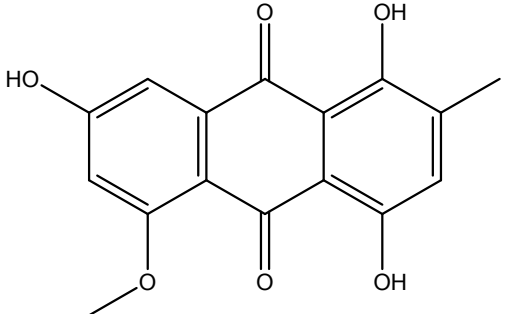
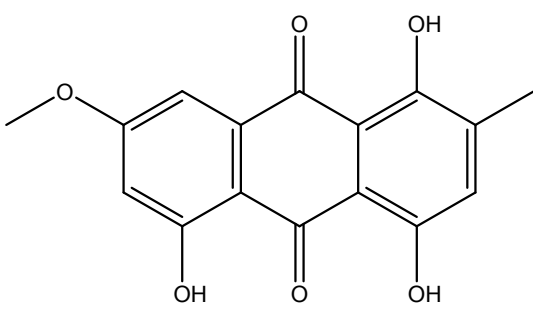
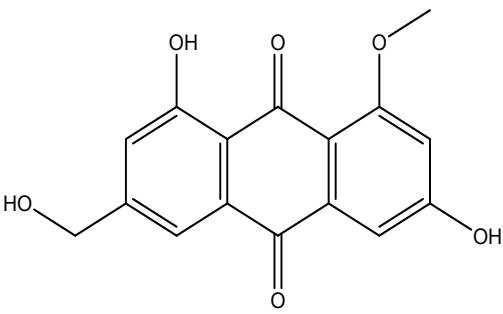
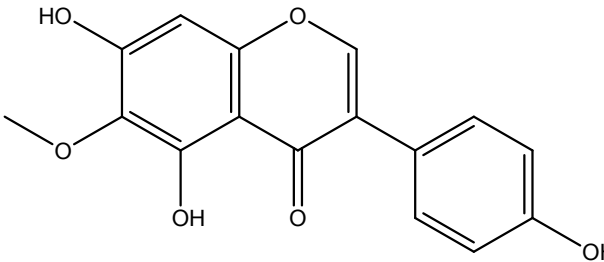
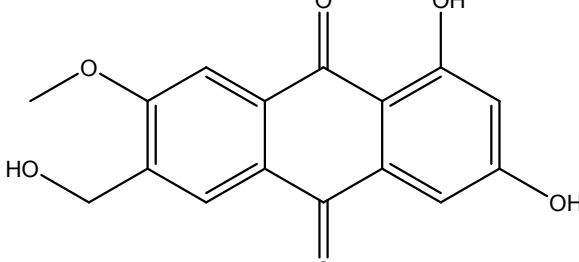
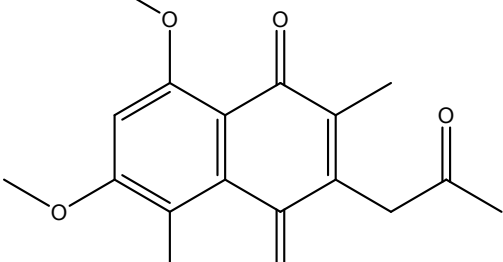
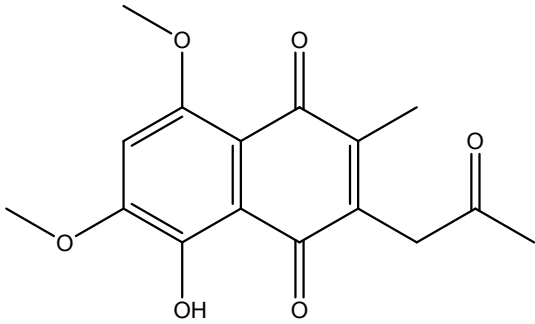
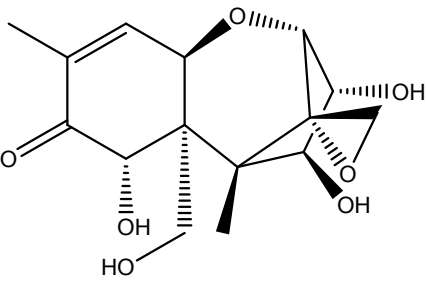
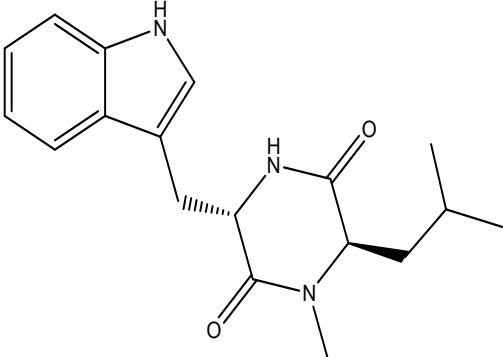
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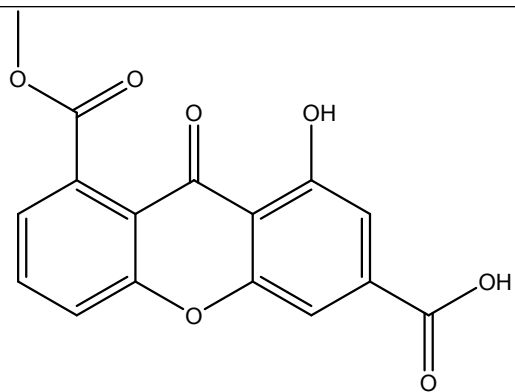


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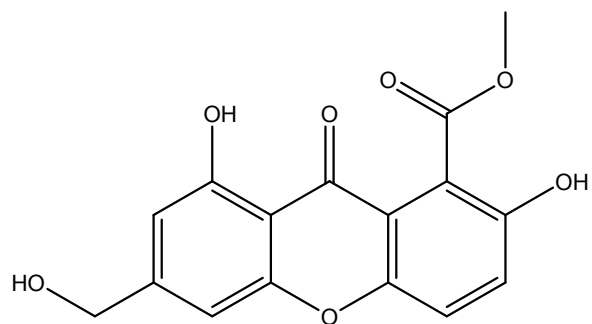


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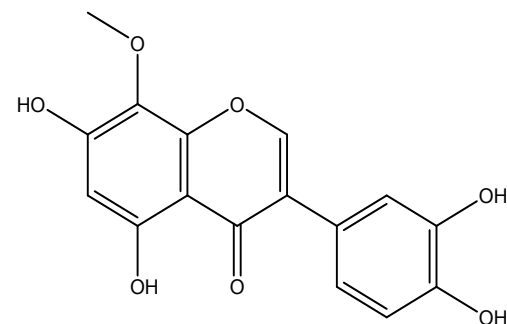
		
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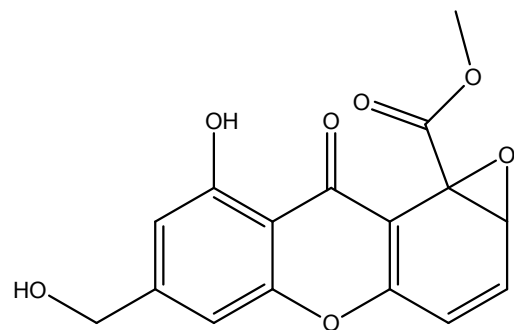
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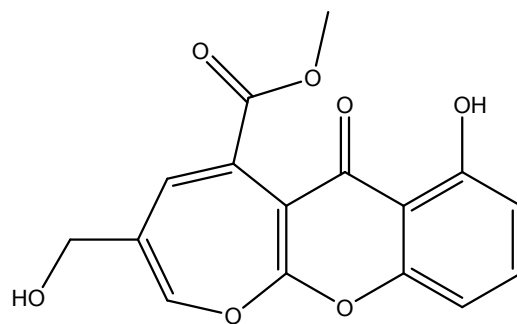
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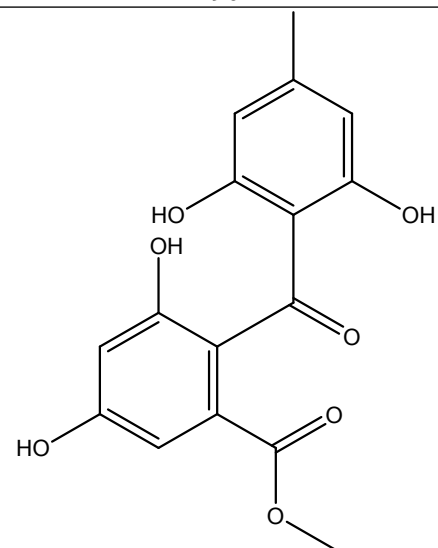
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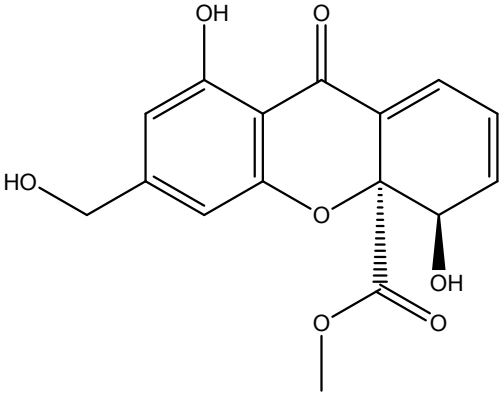
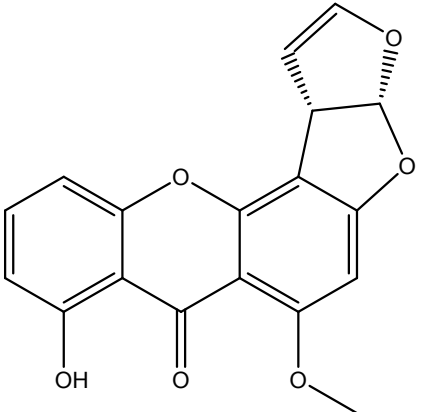
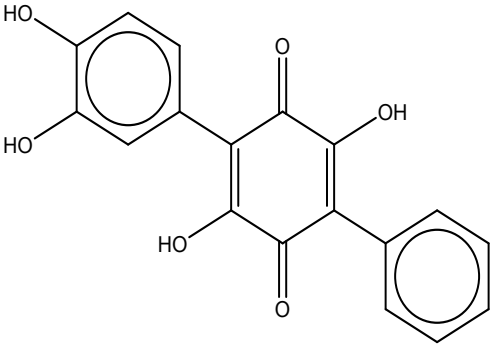
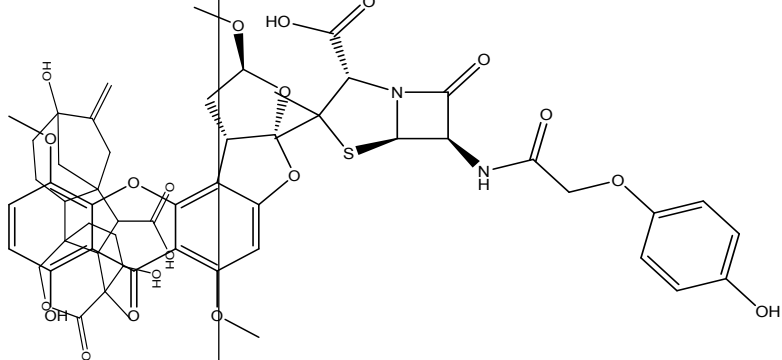
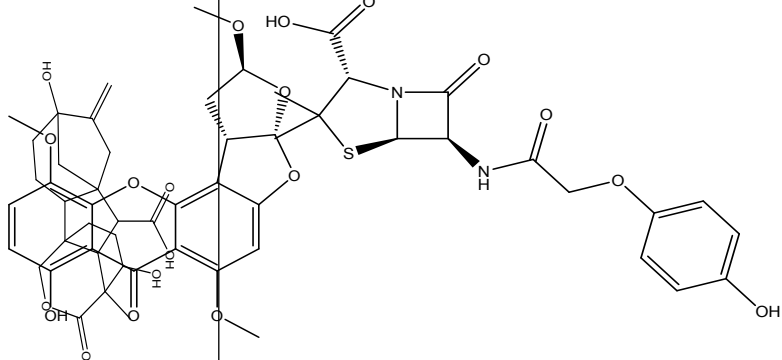
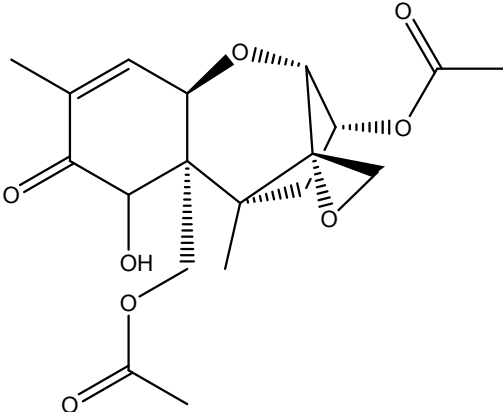
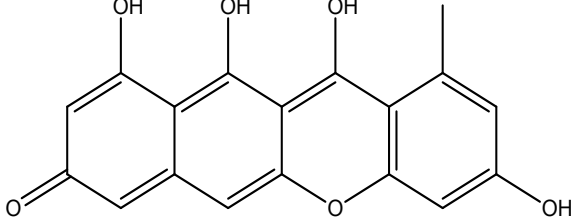
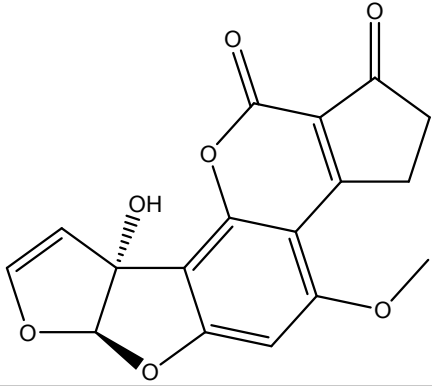
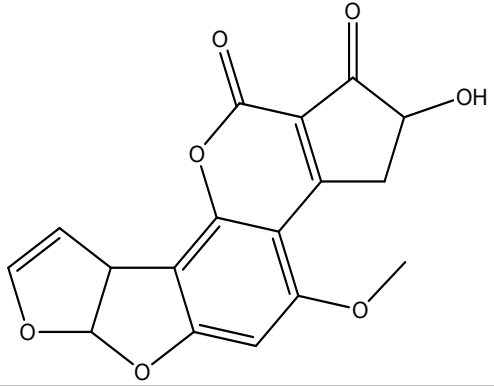
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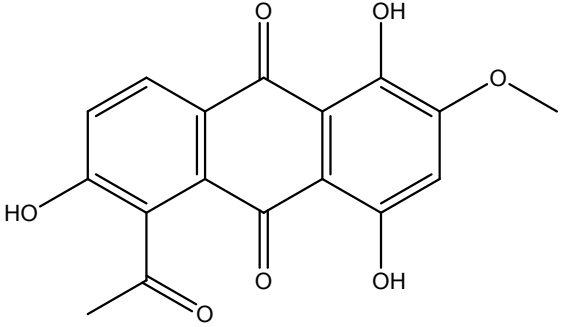
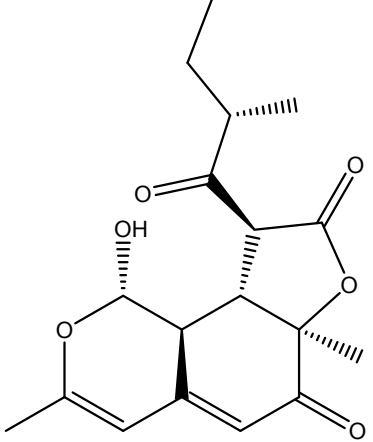
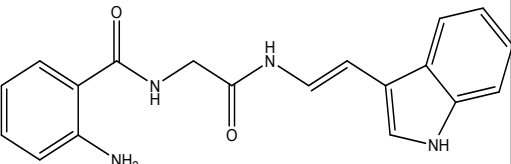
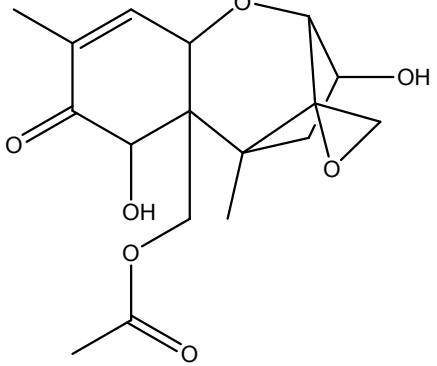
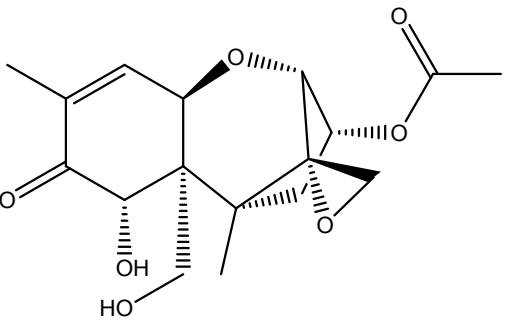
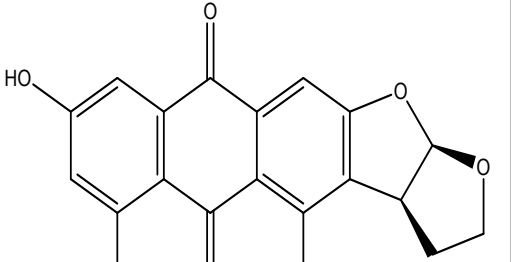
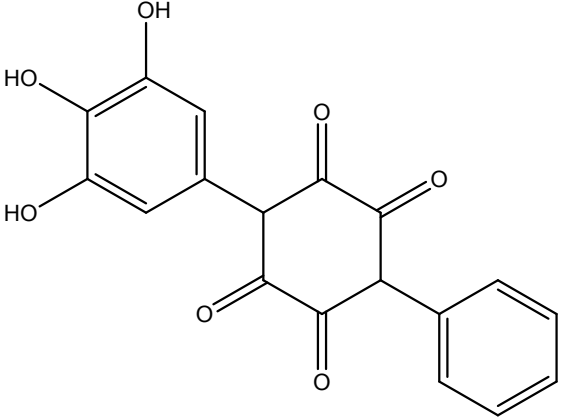
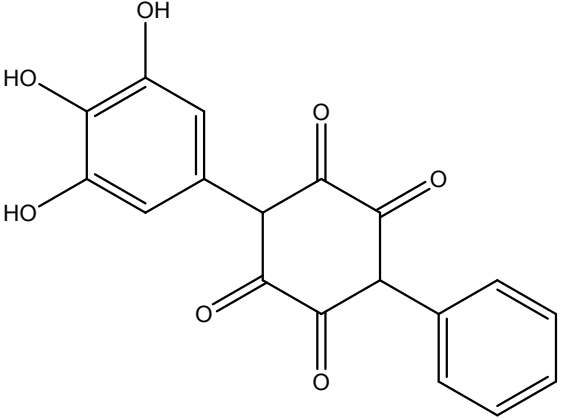


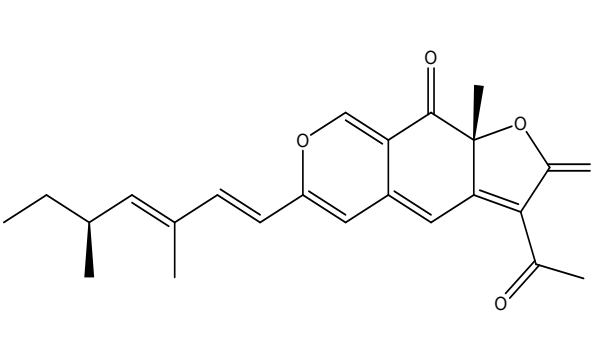
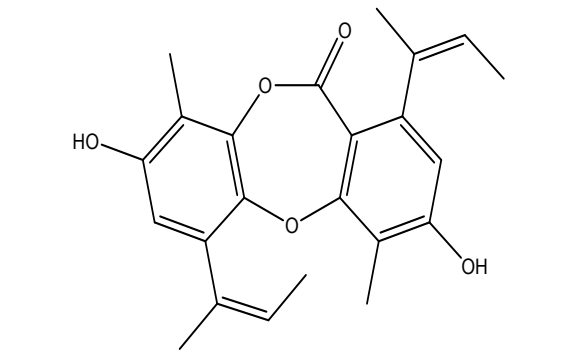
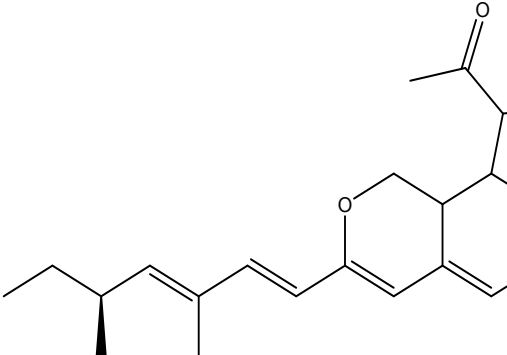
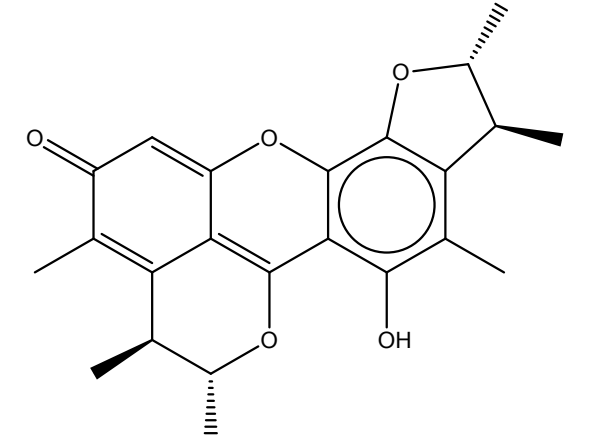
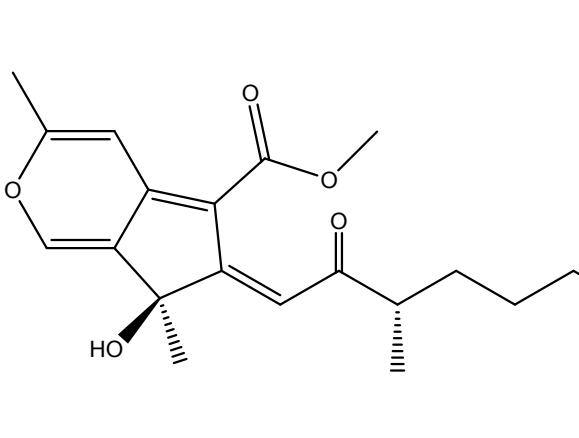
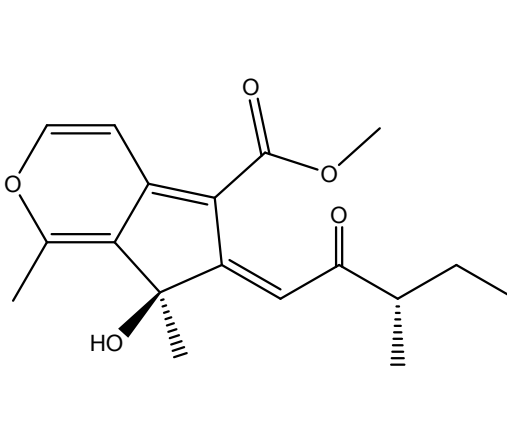
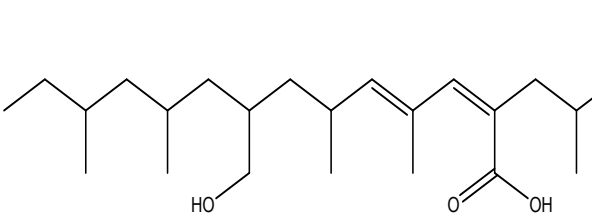
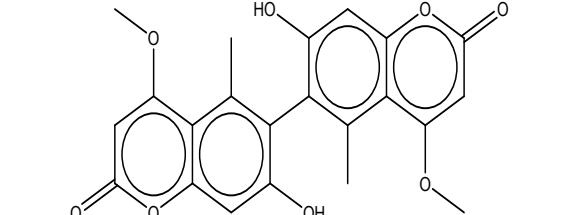
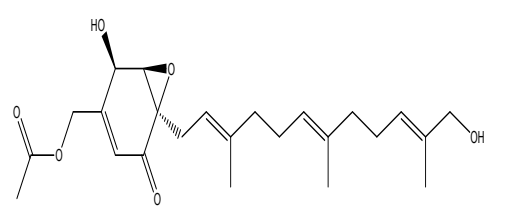
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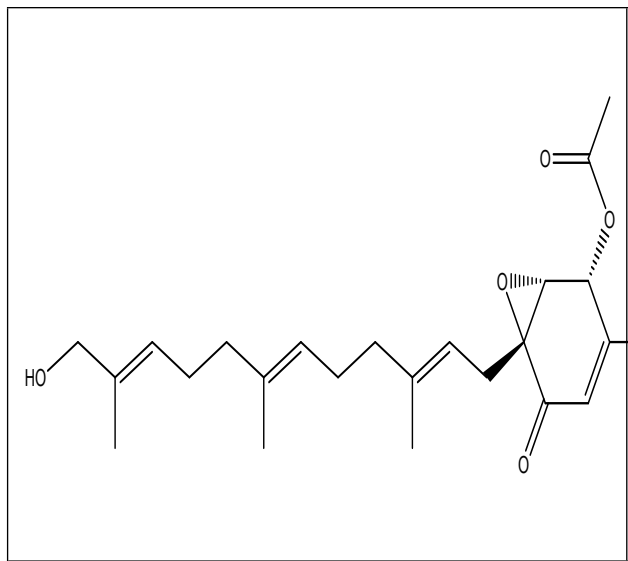
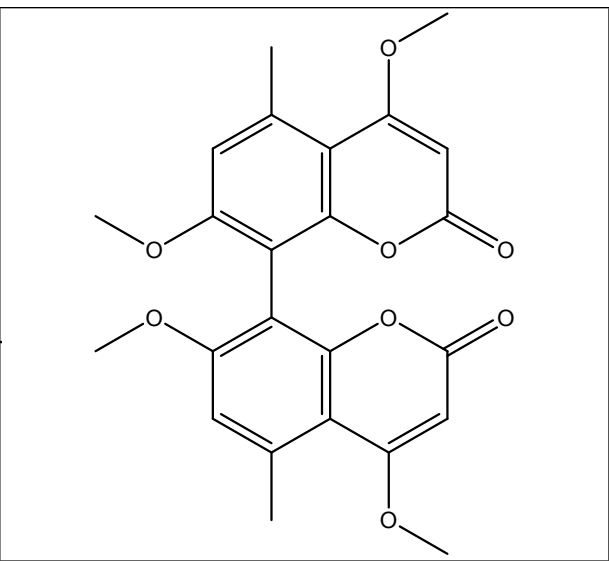
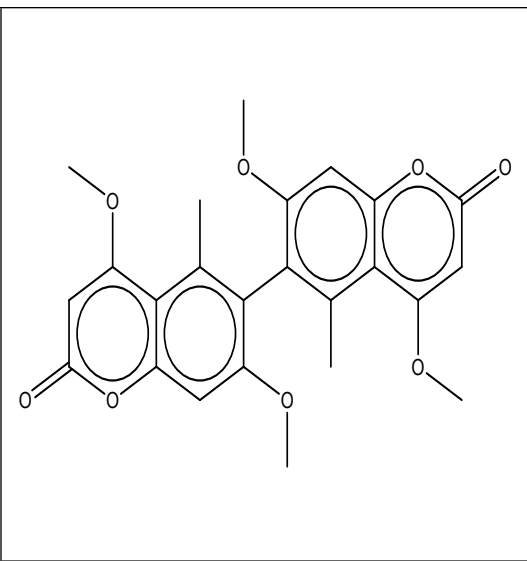
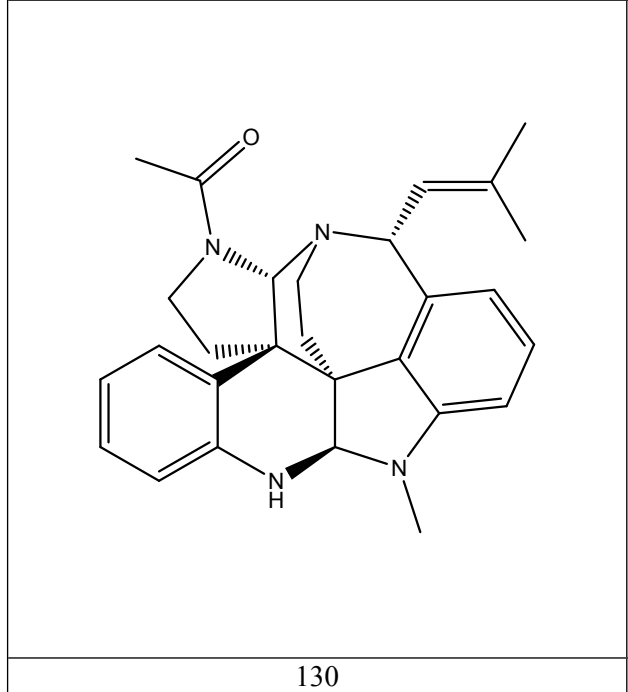
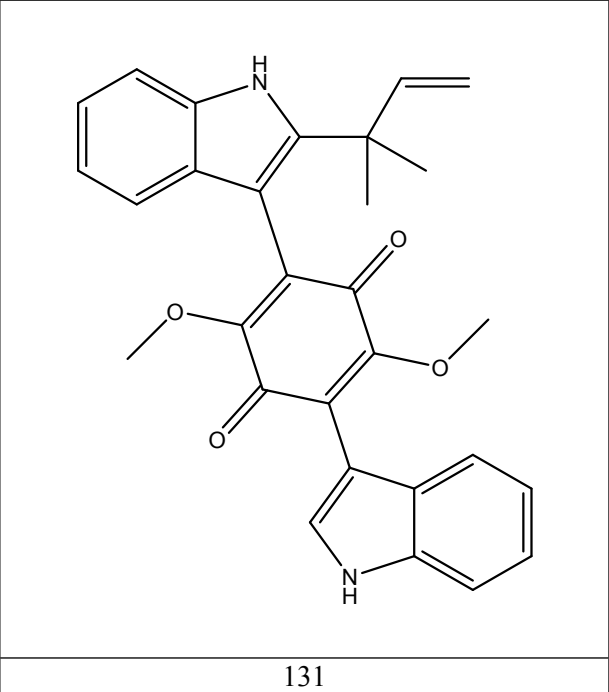
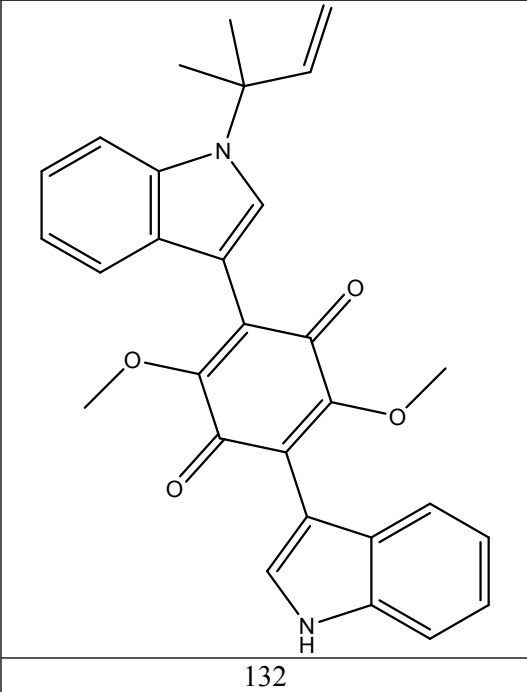


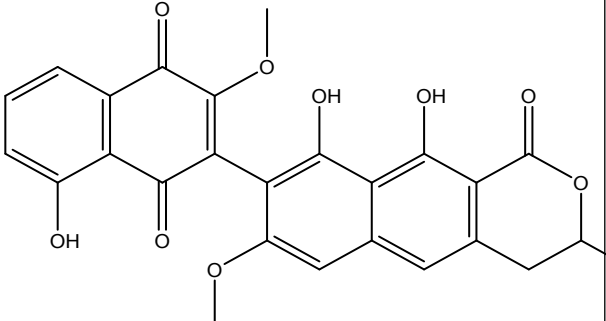
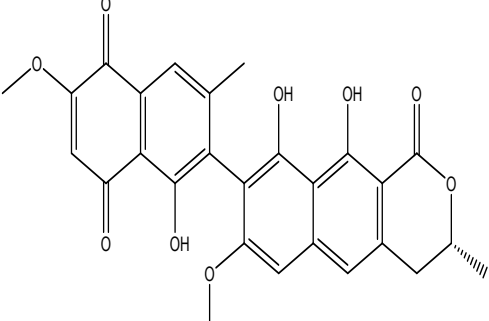
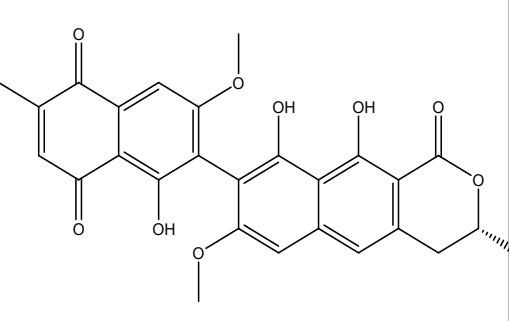
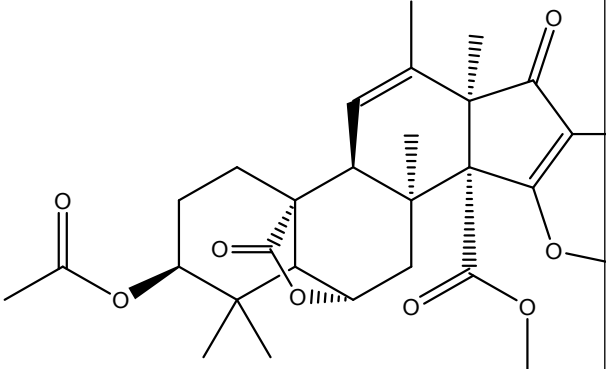
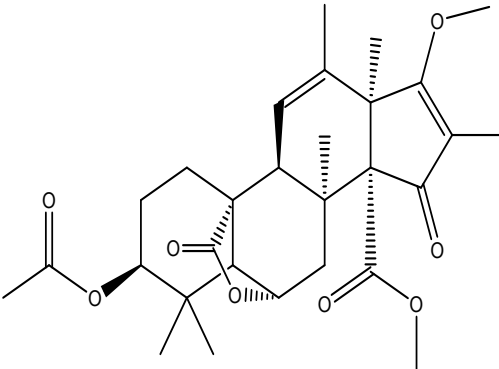
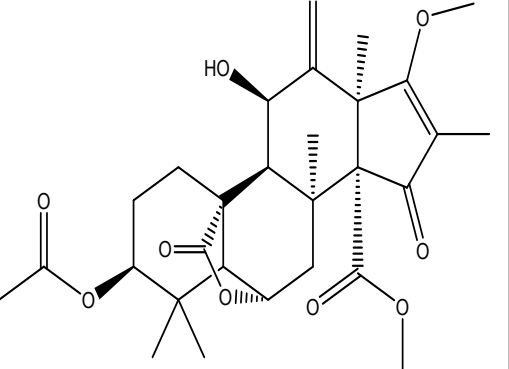
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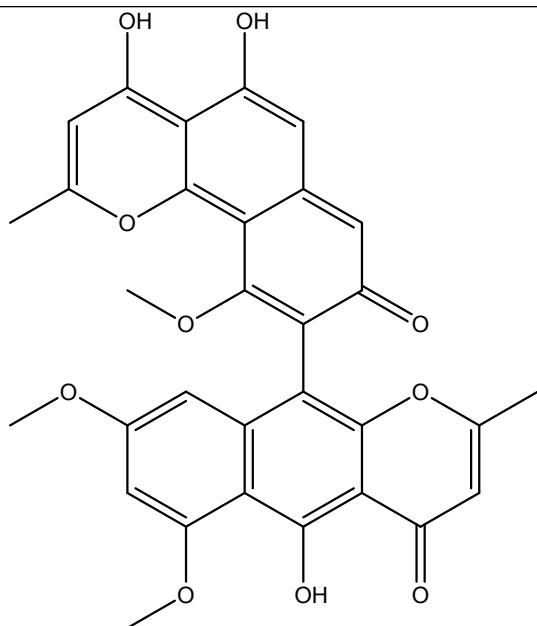
		
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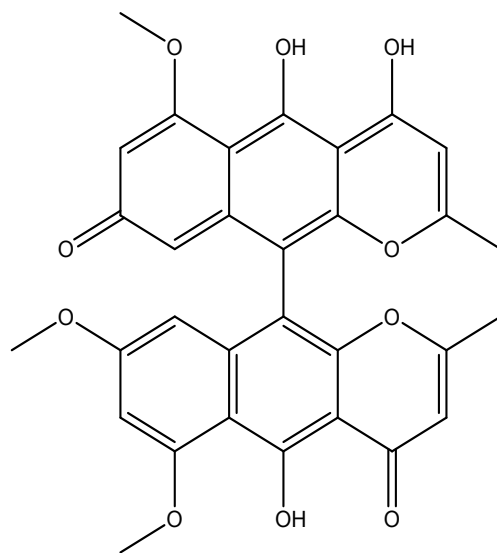
		
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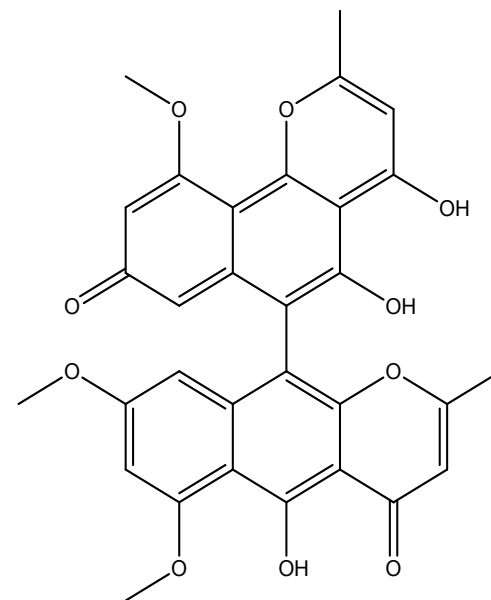
		
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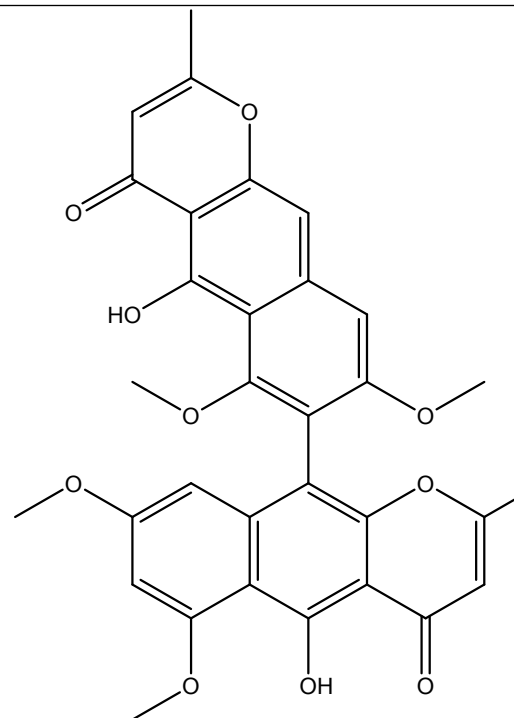
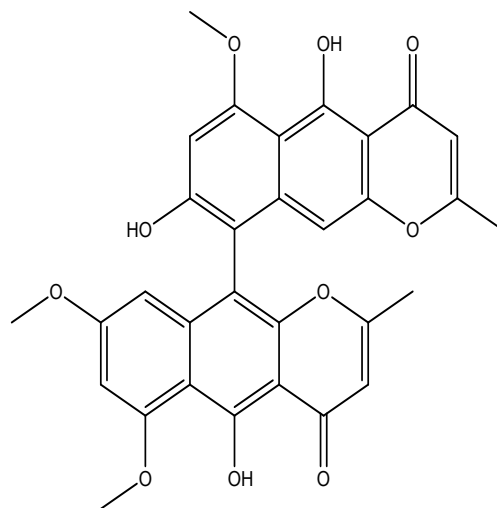
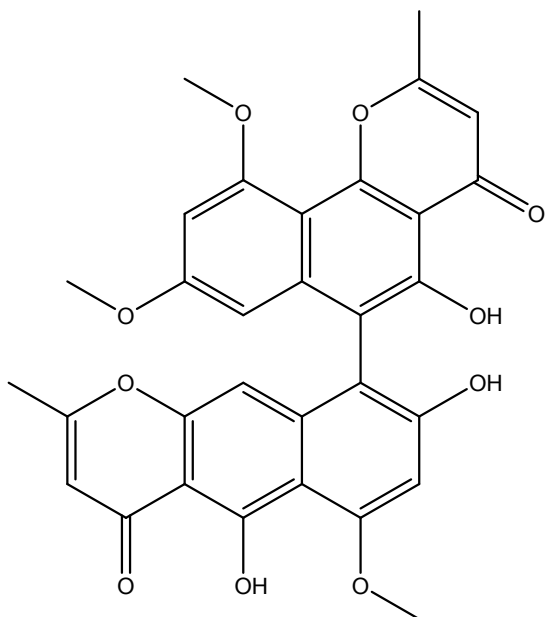
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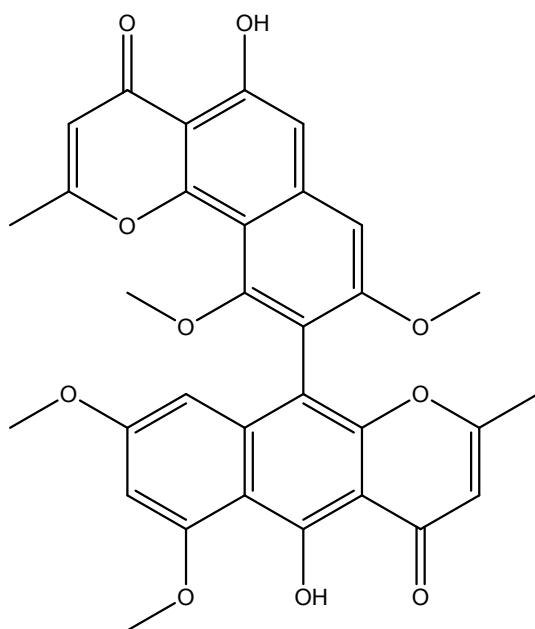
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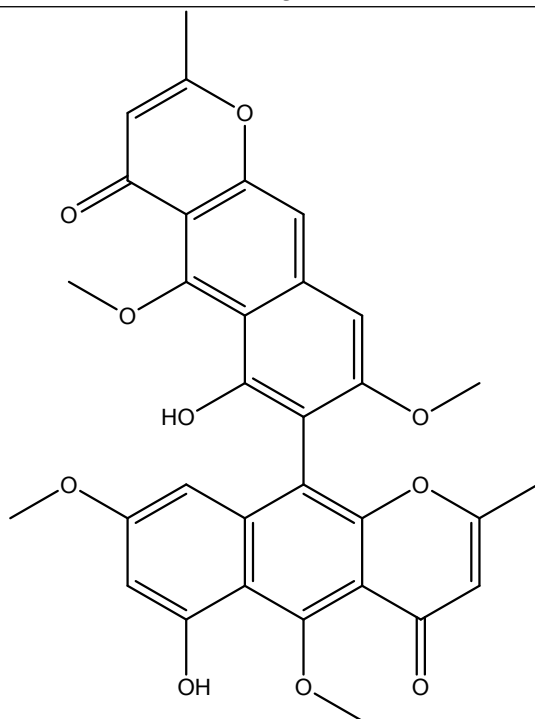


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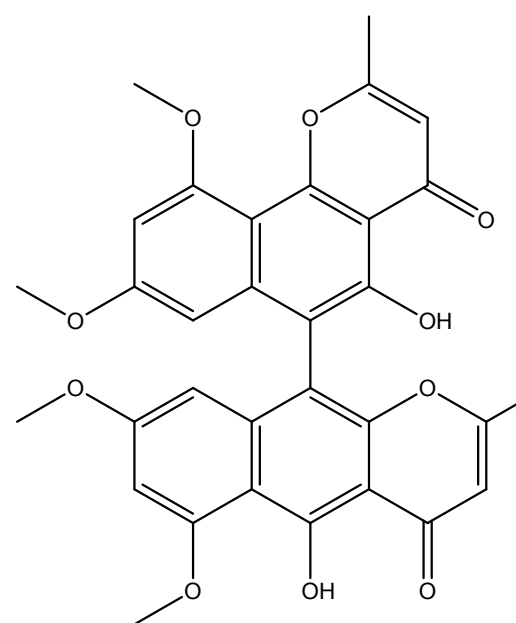
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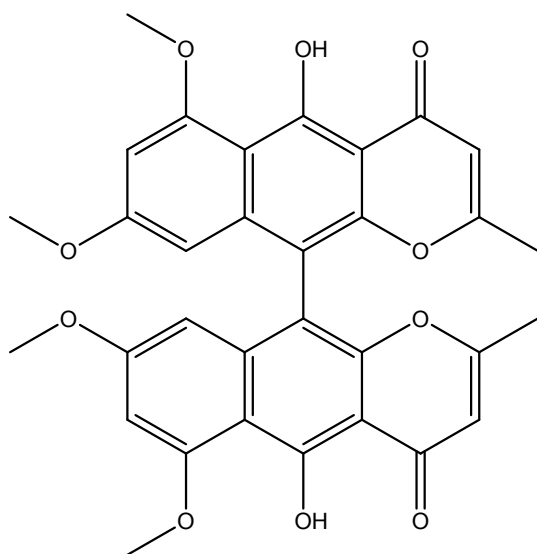


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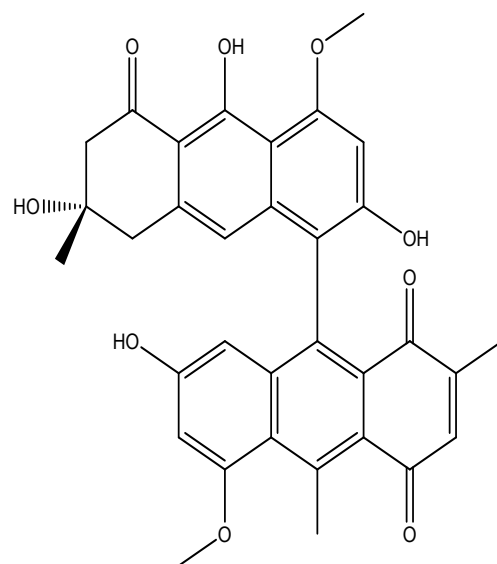
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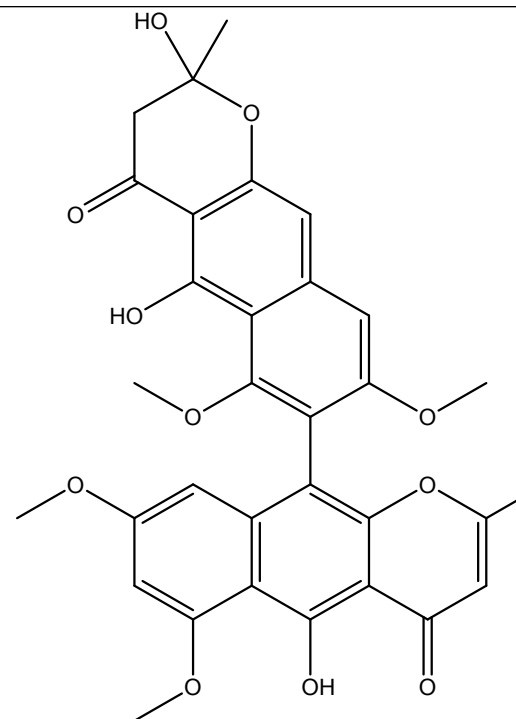
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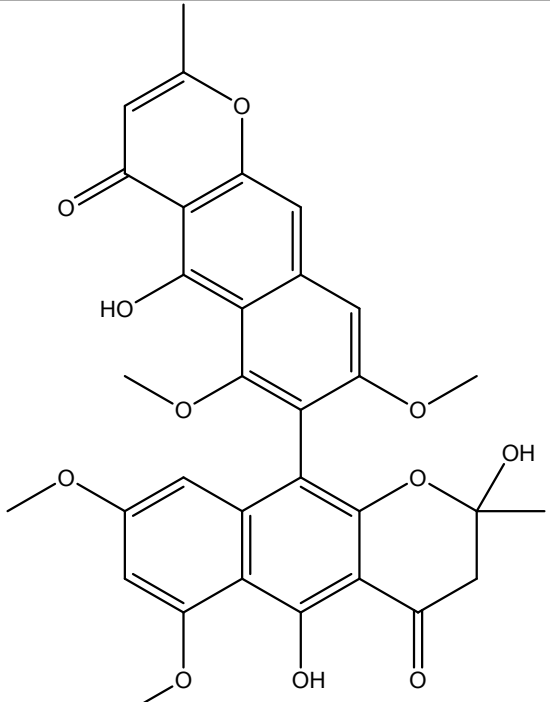
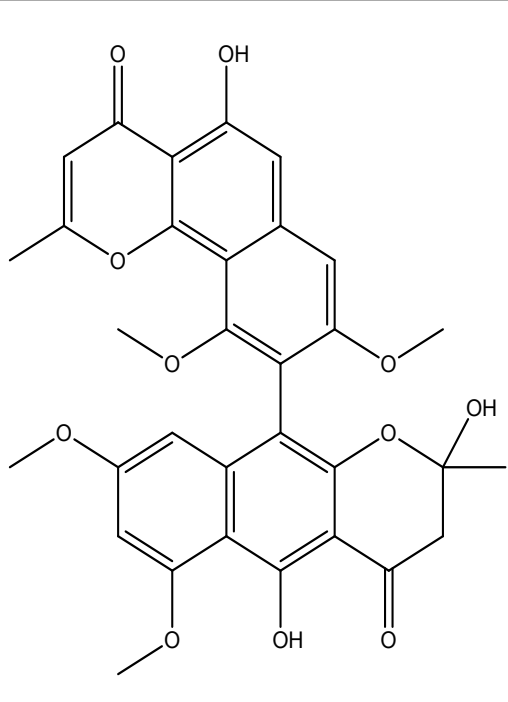
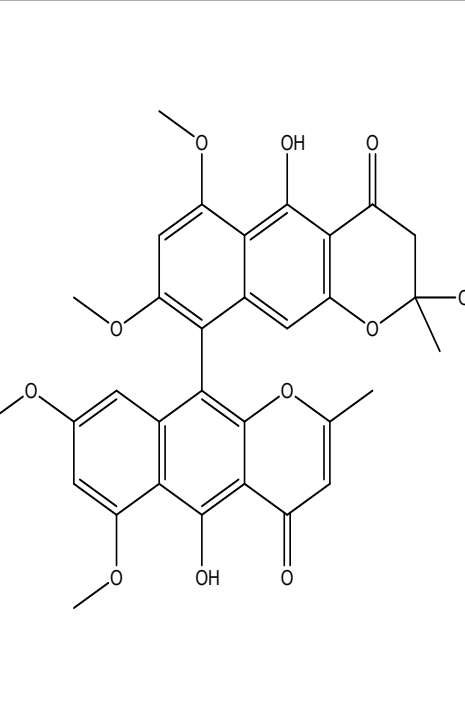
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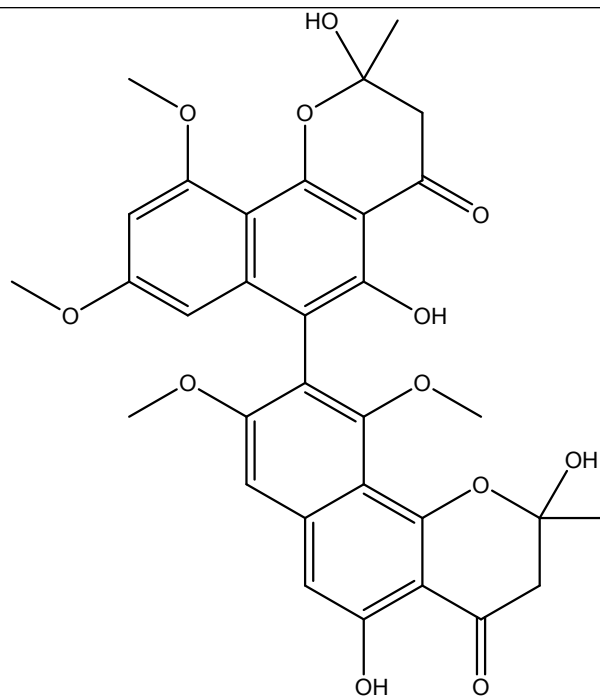


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150

		
151	152	153



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