

Supporting Information for

The untapped potential of plant sesterterpenoids: chemistry, biological activities and biosynthesis

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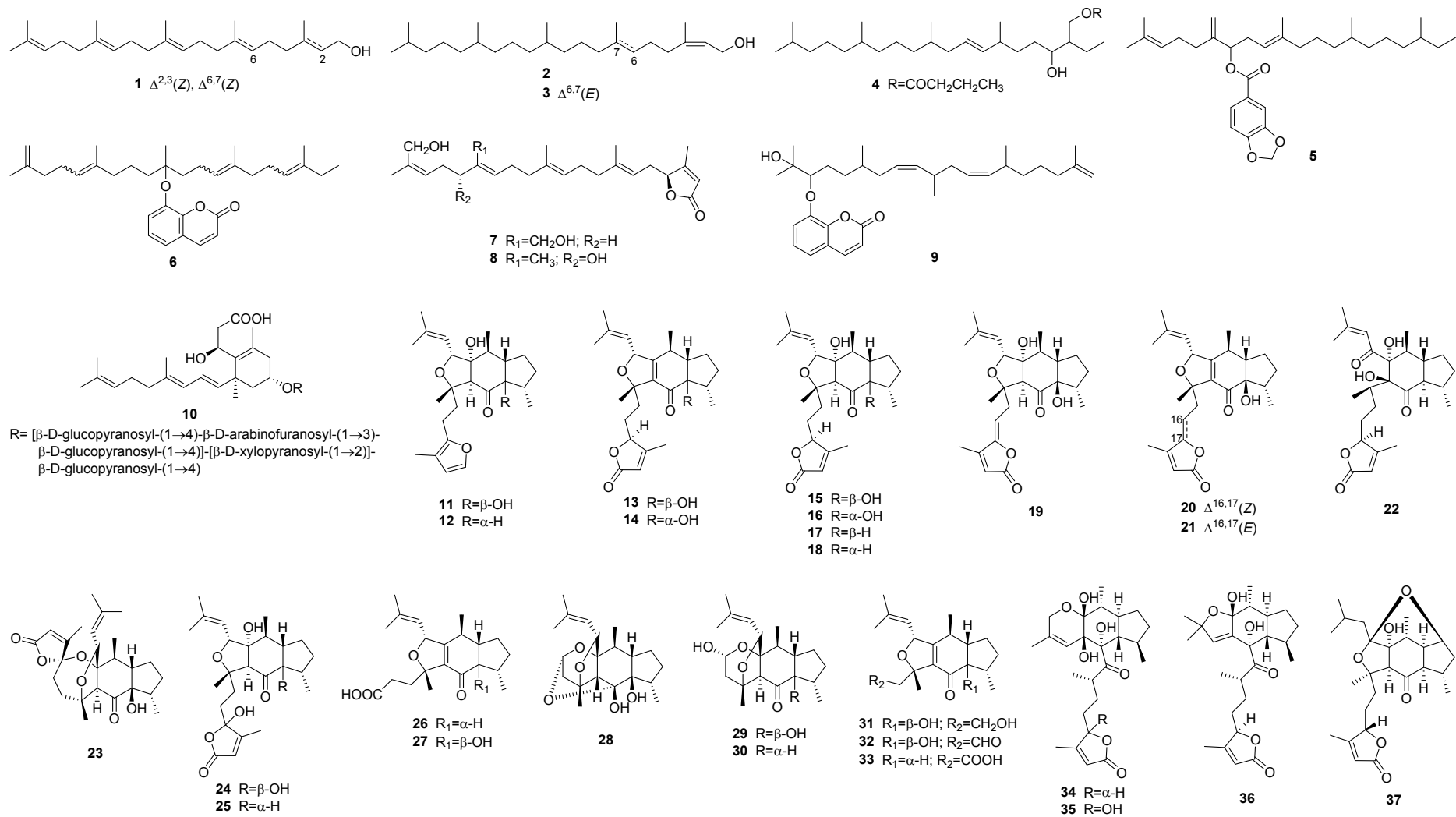
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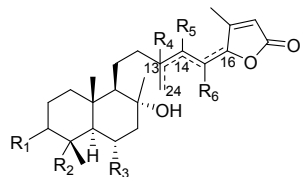
Contents of Supporting Information

Figure S1. Compilation of all the reported structures

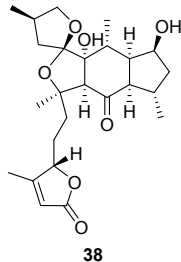
Table S1. Names, Sources and Bioactivities of the Compounds

Figure S1. Compilation of all the reported structures

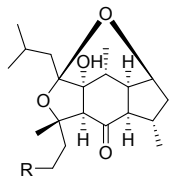




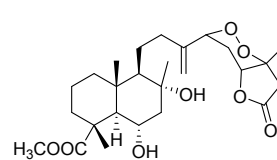
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 42 $R_1=R_6=H$; $R_2=COOCH_3$; $R_3=OH$; $R_5=OOH$; $\Delta^{13,24}$
 43 $R_1=R_5=R_6=H$; $R_2=COOCH_3$; $R_3=OH$; $R_4=OOH$; $\Delta^{14,15}(E)$
 45 $R_1=\alpha-OH$; $R_2=CH_2OH$; $R_5=R_6=H$; $\Delta^{13,14}(E)$
 46 $R_1=R_3=R_5=R_6=H$; $R_2=COOH$; $16R$, $\Delta^{13,14}(E)$
 47 $R_1=R_3=R_6=H$; $R_2=COOH$; $R_4=R_5=OH(threo)$; $\Delta^{15,16}(E)$
 48 $R_1=R_3=R_6=H$; $R_2=COOH$; $R_4=R_5=OH(erythro)$; $\Delta^{15,16}(E)$
 49 $R_1=OH$; $R_2=CH_3$; $R_3=R_6=H$; $R_4=R_5=OH(erythro)$; $\Delta^{15,16}(E)$
 50 $R_1=R_5=H$; $R_2=CH_2OH$; $R_3=R_6=OH$; $16R$, $\Delta^{13,14}(E)$
 51 $R_1=R_5=R_6=H$; $R_2=CH_2OH$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 52 $R_1=R_5=H$; $R_2=CH_3$; $R_3=R_6=OH$; $16R$, $\Delta^{13,14}(E)$
 53 $R_1=R_5=H$; $R_2=COOH$; $R_3=R_6=OH$; $16R$, $\Delta^{13,14}(E)$
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 55 $R_1=R_5=H$; $R_2=COOCH_3$; $R_3=R_6=OH$; $16R$, $\Delta^{13,14}(E)$
 56 $R_1=R_5=H$; $R_2=CHO$; $R_3=R_6=OH$; $16R$, $\Delta^{13,14}(E)$
 57 $R_1=R_5=R_6=H$; $R_2=CHO$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 58 $R_1=R_5=R_6=H$; $R_2=CH_2OH$; $R_3=OH$; $\Delta^{13,14}(E)$, $\Delta^{15,16}(Z)$
 59 $R_1=R_5=R_6=H$; $R_2=COOH$; $R_3=OH$; $\Delta^{13,14}(E)$, $\Delta^{15,16}(Z)$
 60 $R_1=R_5=R_6=H$; $R_2=CHO$; $R_3=OH$; $\Delta^{13,14}(E)$, $\Delta^{15,16}(Z)$
 61 $R_1=H$; $R_2=CH_2OH$; $R_3=OH$; $R_5=R_6=OH(erythro)$; $\Delta^{13,24}$
 62 $R_1=H$; $R_2=CH_2OH$; $R_3=OH$; $R_5=R_6=OH(threo)$; $\Delta^{13,24}$
 63 $R_1=H$; $R_2=CHO$; $R_3=OH$; $R_5=R_6=OH(erythro)$; $\Delta^{13,24}$
 66 $R_1=R_3=R_5=R_6=H$; $R_2=COOCH_3$; $16R$, $\Delta^{13,14}(E)$
 69 $R_1=R_3=R_5=H$; $R_2=COOCH_3$; $R_6=OH$; $16R$, $\Delta^{13,14}(E)$
 70 $R_1=R_3=R_5=R_6=H$; $R_2=CH_2OH$; $\Delta^{13,14}(E)$



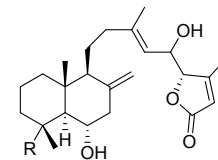
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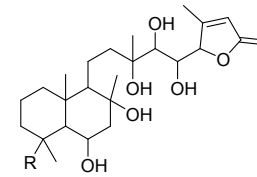
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 40 $R=OH$



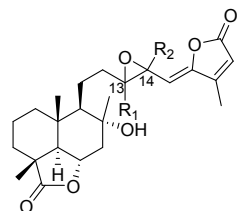
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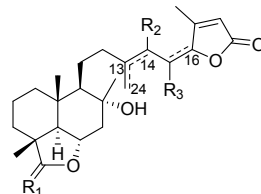
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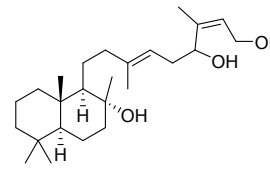
66 $R=CH_2OH$
 67 $R=CHO$



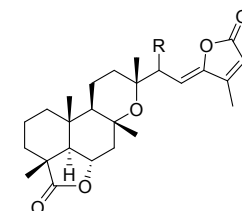
72 $R_1=\alpha-CH_3$; $R_2=\beta-H$
 73 $R_1=\beta-CH_3$; $R_2=\beta-H$
 74 $R_1=\beta-CH_3$; $R_2=\alpha-H$



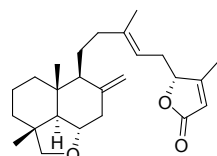
- 75 $R_1=O$; $R_2=OOH$; $R_3=H$; $\Delta^{13,24}$
 76 $R_1=O$; $R_2=H$; $R_3=H$; $\Delta^{13,14}(E)$
 78 $R_1=H$, H ; $R_2=H$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 79 $R_1=O$; $R_2=H$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 80 $R_1=OH$, H ; $R_2=H$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 81 $R_1=OEt$, H ; $R_2=H$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 82 $R_1=OEt$, H ; $R_2=H$; $R_3=H$; $16R$, $\Delta^{13,14}(E)$
 83 $R_1=O$; $R_2=H$; $R_3=H$; $\Delta^{13,14}(E)$, $\Delta^{15,16}(Z)$
 84 $R_1=O$; $R_2=H$; $R_3=H$; $\Delta^{13,14}(E)$, $\Delta^{15,16}(Z)$
 86 $R_1=O$; $R_2=OH$; $R_3=H$; $\Delta^{13,24}$
 88 $R_1=OCH_3$, H ; $R_2=H$; $R_3=H$; $\Delta^{13,14}(E)$
 89 $R_1=OCH_3$, H ; $R_2=H$; $R_3=OH$; $16R$, $\Delta^{13,14}(E)$
 90 $R_1=OH$, H ; $R_2=H$; $R_3=H$; $\Delta^{13,14}(E)$



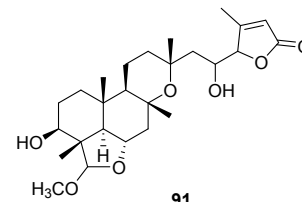
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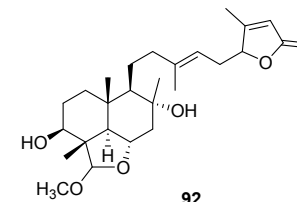
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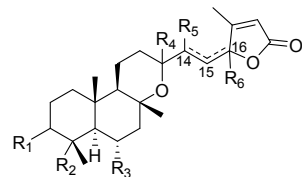
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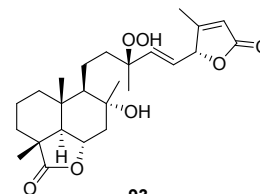
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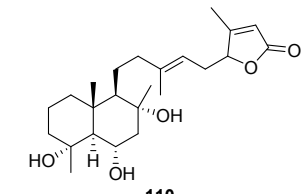
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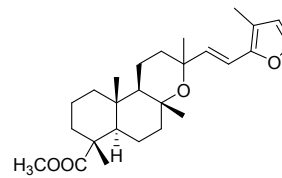
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 95 $R_1=\alpha-OH$; $R_2=CH_3$; $R_3=H$; $R_4=\beta-CH_3$; $R_5=H$; $R_6=OCH_3$; $\Delta^{14,15}(E)$
 96 $R_1=\alpha-OH$; $R_2=CH_3$; $R_3=H$; $R_4=\alpha-CH_3$; $R_5=H$; $R_6=OCH_3$; $\Delta^{14,15}(E)$
 97 $R_1=H$; $R_2=CH_3$; $R_3=OH$; $R_4=\beta-CH_3$; $R_5=OH$; $\Delta^{15,16}(Z)$
 98 $R_1=H$; $R_2=CH_3$; $R_3=OH$; $R_4=\beta-CH_3$; $R_5=H$; $R_6=OH$; $\Delta^{14,15}(E)$
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 102 $R_1=H$; $R_2=COOH$; $R_3=H$; $R_4=\alpha-CH_3$; $R_5=\beta-OH$; $\Delta^{15,16}(Z)$
 103 $R_1=H$; $R_2=COOH$; $R_3=H$; $R_4=\beta-CH_3$; $R_5=\beta-OH$; $\Delta^{15,16}(Z)$
 104 $R_1=H$; $R_2=COOH$; $R_3=H$; $R_4=\alpha-CH_3$; $R_5=\alpha-OH$; $\Delta^{15,16}(Z)$
 105 $R_1=H$; $R_2=COOH$; $R_3=H$; $R_4=\alpha-CH_3$; $R_5=OH$; $R_6=\beta-H$
 106 $R_1=H$; $R_2=COOH$; $R_3=H$; $R_4=\beta-CH_3$; $R_5=H$; $\Delta^{15,16}(Z)$
 107 $R_1=H$; $R_2=COAc$; $R_3=OH$; $R_4=\beta-CH_3$; $R_5=\beta-OH$; $\Delta^{15,16}(Z)$
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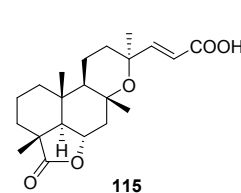
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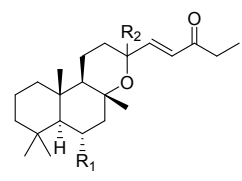
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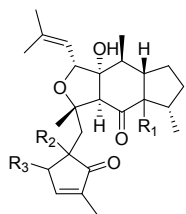
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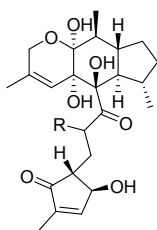
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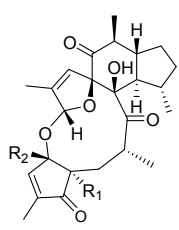
111 $R_1=OH$; $R_2=\beta-CH_3$
 112 $R_1=OH$; $R_2=\alpha-CH_3$
 113 $R_1=H$; $R_2=\beta-CH_3$
 114 $R_1=H$; $R_2=\alpha-CH_3$



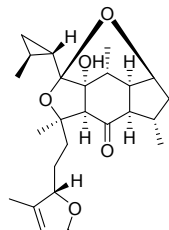
116 R₁=β-OH; R₂=β-H; R₃=β-OH
117 R₁=α-H; R₂=α-H; R₃=α-OH



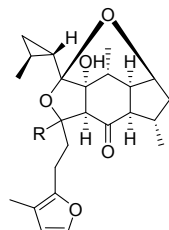
118 R=β-CH₃
119 R=α-CH₃



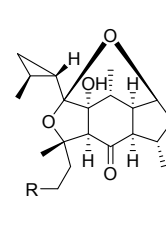
120 R₁=α-H; R₂=β-H
121 R₁=β-H; R₂=α-H



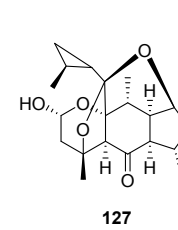
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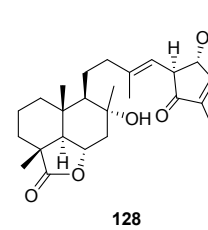
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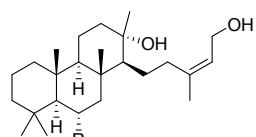
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126 R=OH



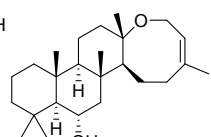
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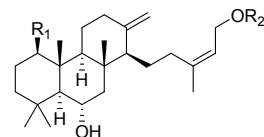
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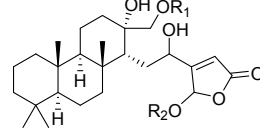
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130 R=H



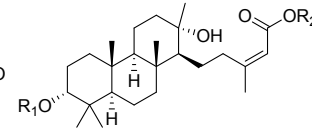
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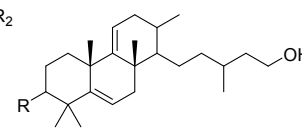
132 R₁=R₂=H
133 R₁=OH; R₂=H
134 R₁=OH; R₂=Ac



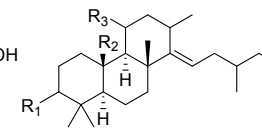
135 R₁=R₂=Ac
136 R₁=H; R₂=Ac
137 R₁=Ac; R₂=*trans*-cinnamoyl
138 R₁=H; R₂=*trans*-cinnamoyl



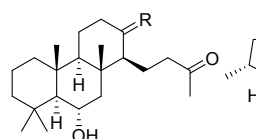
139 R₁=COCH₂COOH; R₂=CH₃
140 R₁=COCH₂COOH; R₂=H
141 R₁=H; R₂=CH₃
142 R₁=R₂=H



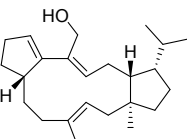
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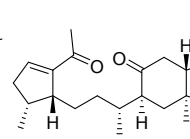
144 R₁=H; R₂=COOH; R₃=OH
145 R₁=OGlc; R₂=CH₃; R₃=H



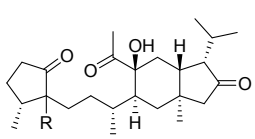
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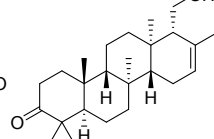
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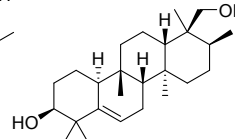
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150 R=α-H



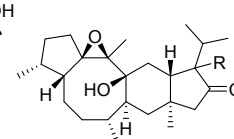
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152 R=α-H



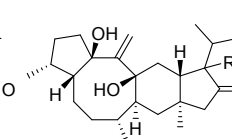
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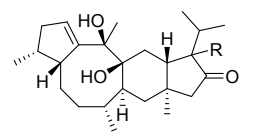
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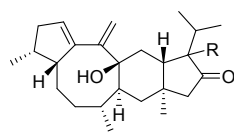
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160 R=α-H



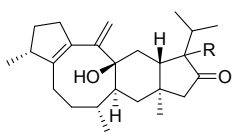
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161 R=α-H



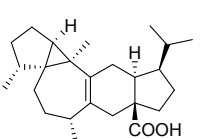
157 R=β-H
162 R=α-H



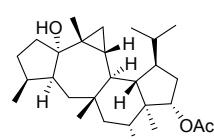
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163 R=α-H



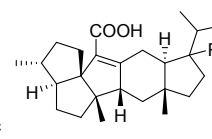
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164 R=α-H



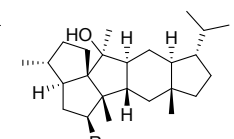
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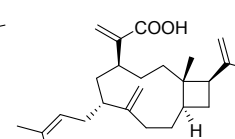
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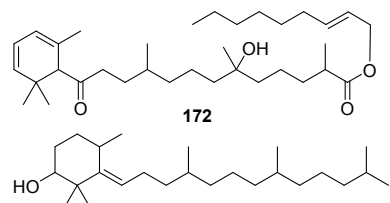
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170 R=α-H



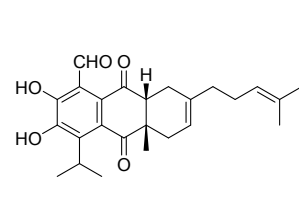
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169 R=OH



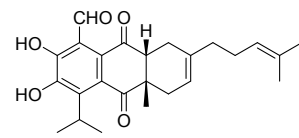
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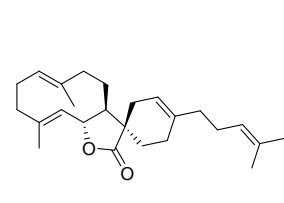
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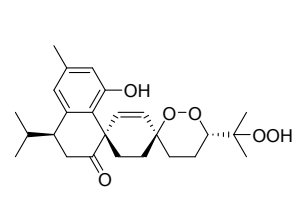
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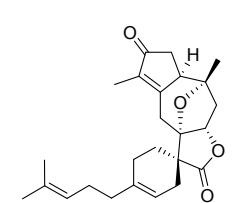
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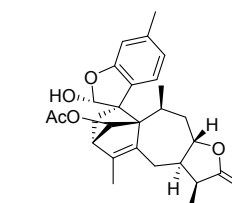
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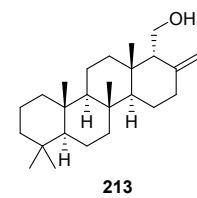
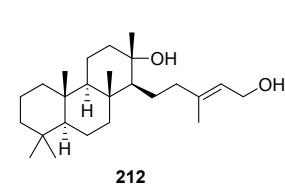
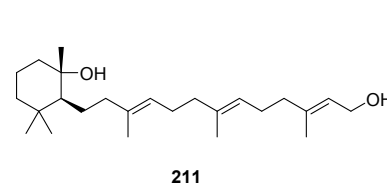
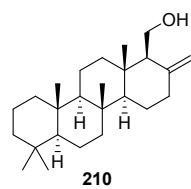
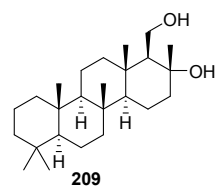
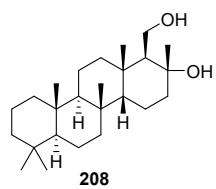
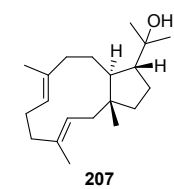
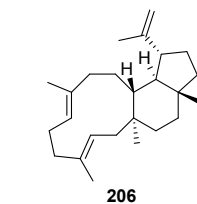
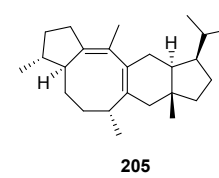
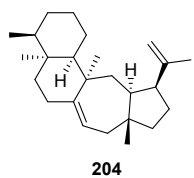
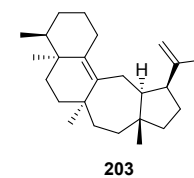
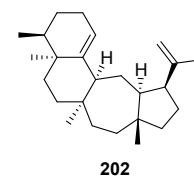
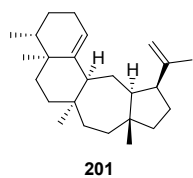
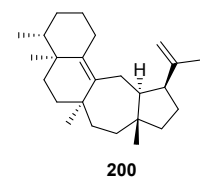
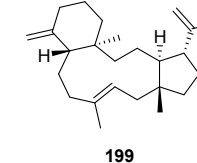
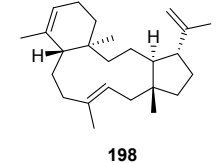
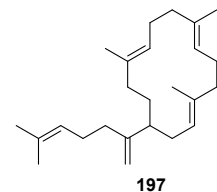
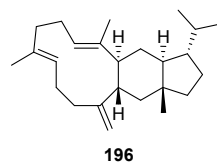
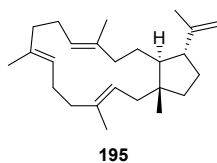
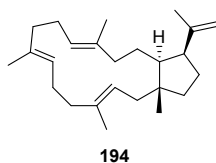
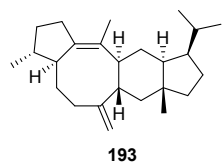
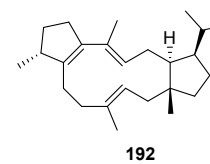
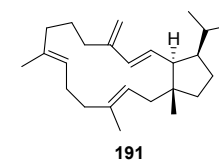
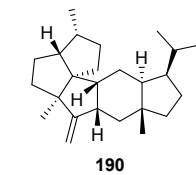
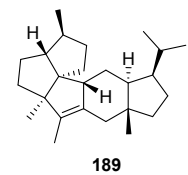
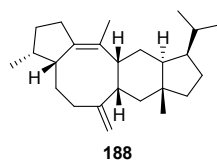
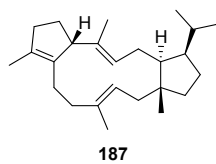
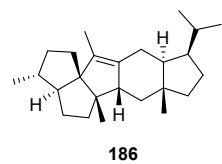
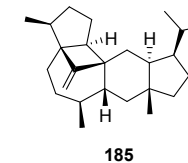
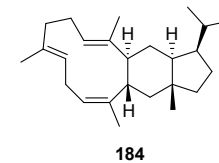
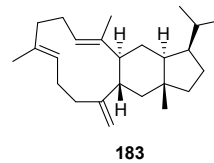
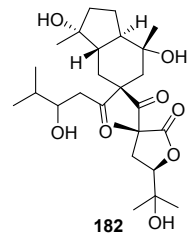
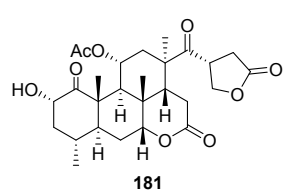
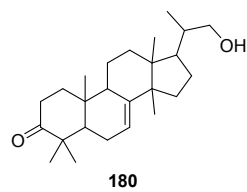
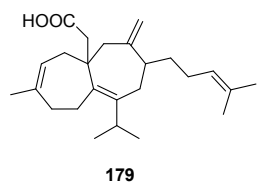


Table S1. Names, Sources and Bioactivities of the Compounds

Com.	Names	Sources	Bioactivities
1	(2Z,6Z,10E,14E)-geranylarnesol	<i>Triticum aestivum</i> (Gramineae)	
2	(2E)-3,7,11,15,19-pentamethyleicos-2-1-ol	<i>Croton hieronymi</i> (Euphorbiaceae)	
3	(2Z,6E)-3,7,11,15,19-pentamethyleicosa-2,6-dien-1-ol	<i>Solanum tuberosum</i> (Solanaceae)	
4	2,6,10,14-tetramethyl-18-butanecarboxymethylene-henecos-12-en-17 β -ol	<i>Oryza sativa</i> (Gramineae)	
5	myrrha-sesterterpenyl piperonylate	<i>Commiphora myrrha</i> (Burseraceae)	
6	aegleosesterterpenoid	<i>Aegle marmelos</i> (Rutaceae)	
7	coleifolide A	<i>Scutellaria coleifolia</i> (Lamiaceae)	cytotoxicity
8	coleifolide B	<i>Scutellaria coleifolia</i> (Lamiaceae)	cytotoxicity
9	aegleonorsesterterpentriene	<i>Aegle marmelos</i> (Rutaceae)	
10	woodwardinocide	<i>Woodwardia virginica</i> (fern of Blechnaceae)	
11	leucosceptroid A	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity; antifungal activity
12	leucosceptroid B	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity; antifungal activity
13	leucosceptroid E	<i>Leucosceptrum canum</i> (Lamiaceae)	
14	leucosceptroid F	<i>Leucosceptrum canum</i> (Lamiaceae)	
15	leucosceptroid G	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
16	leucosceptroid H	<i>Leucosceptrum canum</i> (Lamiaceae)	
17	leucosceptroid I	<i>Leucosceptrum canum</i> (Lamiaceae)	
18	leucosceptroid J	<i>Leucosceptrum canum</i> (Lamiaceae)	
19	leucosceptroid K	<i>Leucosceptrum canum</i> (Lamiaceae)	
20	leucosceptroid L	<i>Leucosceptrum canum</i> (Lamiaceae)	

Com.	Names	Sources	Bioactivities
21	leucosceptroid M	<i>Leucosceptrum canum</i> (Lamiaceae)	
22	leucosceptroid N	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
23	leucosceptroid O	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
24	leucosceptroid P	<i>Leucosceptrum canum</i> (Lamiaceae)	
25	leucosceptroid Q	<i>Leucosceptrum canum</i> (Lamiaceae)	
26	norleucosceptroid D	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
27	norleucosceptroid E	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
28	norleucosceptroid A	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
29	norleucosceptroid B	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
30	norleucosceptroid C	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
31	norleucosceptroid F	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
32	norleucosceptroid G	<i>Leucosceptrum canum</i> (Lamiaceae)	
33	norleucosceptroid H	<i>Leucosceptrum canum</i> (Lamiaceae)	
34	leucosceptrine	<i>Leucosceptrum canum</i> (Lamiaceae)	prolylendopeptidase inhibitory activity
35	17 α -hydroxyleucosceptrine	<i>Leucosceptrum canum</i> (Lamiaceae)	
36	leucosesterlactone	<i>Leucosceptrum canum</i> (Lamiaceae)	prolylendopeptidase inhibitory activity
37	colquhounoid B	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	antifeedant activity; antifungal activity
38	colquhounoid C	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	antifeedant activity
39	norcolquhounoid C	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	immunosuppressive activity
40	norcolquhounoid D	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	immunosuppressive activity
41	salvileucolide methylester	<i>Salvia hypoleuca</i> ; <i>S. sahendica</i> ; <i>S. lachnocalyx</i> ; <i>S. tingitana</i> (Lamiaceae)	antibacterial activity

Com.	Names	Sources	Bioactivities
42	none	<i>Salvia hypoleuca</i> (Lamiaceae)	
43	none	<i>Salvia hypoleuca</i> (Lamiaceae)	
44	none	<i>Salvia hypoleuca</i> (Lamiaceae)	
45	salvisyriacolide	<i>Salvia syriaca</i> (Lamiaceae)	
46	salvimirzacolide	<i>Salvia mirzayanii</i> (Lamiaceae)	
47	8 α ,13,14- <i>threo</i> -trihydroxy-labd-15,17-dien-16,19-olide-23-oic acid	<i>Salvia palaestina</i> (Lamiaceae)	
48	8 α ,13,14- <i>erythro</i> -trihydroxy-labd-15,17-dien-16,19-olide-23-oic acid	<i>Salvia palaestina</i> (Lamiaceae)	
49	3 β ,8 α ,13,14- <i>erythro</i> -tetrahydroxy-labd-15,17-dien-16,19-olide	<i>Salvia palaestina</i> (Lamiaceae)	
50	6 α ,8 α ,15(<i>S</i>),23-tetrahydroxy-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> ; <i>S. tingitana</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
51	6 α ,8 α ,23-trihydroxy-labd-13(14),17-dien-16(<i>R</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
52	6 α ,8 α ,15(<i>S</i>)-trihydroxy-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	
53	6 α ,8 α ,15(<i>S</i>)-trihydroxy-23-carbossi-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
54	6 α ,8 α -dihydroxy-23-carbossi-labd-13(14),17-dien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
55	6 α ,8 α ,15(<i>S</i>)-trihydroxy-23-carbossimethylabd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> ; <i>S. tingitana</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
56	6 α ,8 α ,15(<i>S</i>)-trihydroxy-23- <i>oxo</i> -labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
57	6 α ,8 α -dihydroxy-23- <i>oxo</i> -labd-13(14),17-dien-16(<i>R</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
58	6 α ,8 α ,23-trihydroxy-labd-13(14),15,17-trien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase

Com.	Names	Sources	Bioactivities
59	6 α ,8 α -dihydroxy-23-carbossi-labd-13(14),15,17-trien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
60	6 α ,8 α -dihydroxy-23-oxo-13(14),15,17-trien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
61	6 α ,8 α ,23,14,15- <i>threo</i> -pentahydroxy-labd-13(21),17-dien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	
62	6 α ,8 α ,23,14,15- <i>erythro</i> -pentahydroxy-labd-13(21),17-dien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	
63	6 α ,8 α ,14,15- <i>threo</i> -tetrahydroxy-23-oxo-labd-13(21),17-dien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	
64	6 α ,15(<i>S</i>),23-trihydroxy-labd-8(22),13(14),17-trien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
65	6 α ,15(<i>S</i>)-dihydroxy-23-oxo-labd-8(22),13(14),17-trien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
66	none	<i>Salvia dominica</i> (Lamiaceae)	
67	none	<i>Salvia dominica</i> (Lamiaceae)	
68	(13 <i>E</i>)-8 α -hydroxy-23-carboxymethylabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
69	(13 <i>E</i>)-8 α ,15-dihydroxy-23-carboxymethylabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
70	(13 <i>E</i>)-8 α ,23-dihydroxyabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
71	(13 <i>E</i>)-labd-13(14),17(18)-dien-8 α ,16,19-triol	<i>Salvia tingitana</i> (Lamiaceae)	
72	15,16-dehydrosalvileucolide-6,23-lactone-trans-epoxide	<i>Salvia hypoleuca</i> (Lamiaceae)	
73	none	<i>Salvia hypoleuca</i> (Lamiaceae)	
74	none	<i>Salvia hypoleuca</i> (Lamiaceae)	
75	14-hydroperoxy-13(21)-dehydro-13,14-dihydrosalvileucolide-6,23-lactone	<i>Salvia hypoleuca</i> (Lamiaceae)	

Com.	Names	Sources	Bioactivities
76	salvileucolide-6,23-lactone	<i>Salvia hypoleuca</i> ; <i>S. sahendica</i> ; <i>S. lachnocalyx</i> ; <i>S. tingitana</i> (Lamiaceae)	
77	23,6 α -epoxy-labd-8,13(14),17-trien-16(<i>R</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
78	8 α ,15(<i>S</i>)-dihydroxy-23,6 α -epoxy-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	
79	8 α ,15(<i>S</i>)-dihydroxylabd-13(14),17-dien-23,6 α -16(<i>S</i>),19-diolide	<i>Salvia dominica</i> (Lamiaceae)	
80	8 α ,15(<i>S</i>),23 α -trihydroxy-23,6 α -epoxy-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
81	8 α ,15(<i>S</i>)-dihydroxy,23 α - <i>O</i> -ethyl-23,6 α -epoxy-labd-13(14),17-dien-16(<i>S</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
82	8 α -hydroxy,23 α - <i>O</i> -ethyl-23,6 α -epoxy-labd-13(14),17-dien-16(<i>R</i>),19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
83	8 α -hydroxylabd-13(14),15,17-trien-6 α ,23-16,19-diolide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
84	8 α -23-dihydroxy-23,6 α -epoxy-labd-13(14),15,17-trien-16,19-olide	<i>Salvia dominica</i> (Lamiaceae)	inhibiting tubulin-tyrosine ligase
85	lachnocalyxolide A	<i>Salvia lachnocalyx</i> ; <i>S. deserta</i> (Lamiaceae)	
86	lachnocalyxolide B	<i>Salvia lachnocalyx</i> (Lamiaceae)	
87	none	<i>Salvia deserta</i> (Lamiaceae)	
88	(13 <i>E</i>)-8 α -hydroxy-23 α - <i>O</i> -methyl-23,6 α -epoxylabd-13(14),17-(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
89	(13 <i>E</i>)-8 α ,15-dihydroxy-23 α - <i>O</i> -methyl-23,6 α -epoxylabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
90	(13 <i>E</i>)-8 α ,23 α -dihydroxy-23,6 α -epoxylabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
91	salvidominicolide A	<i>Salvia dominica</i> (Lamiaceae)	
92	salvidominicolide B	<i>Salvia dominica</i> (Lamiaceae)	

Com.	Names	Sources	Bioactivities
93	8 α -hydroxy-13-hydroperoxylabd-14,17-dien-19,16;23,6 α -diolide	<i>Salvia sahendica</i> (Lamiaceae)	
94	none	<i>Salvia deserta</i> (Lamiaceae)	
95	salviaethiopolide	<i>Salvia aethiopis</i> (Lamiaceae)	
96	13- <i>epi</i> -salviaethiopolide	<i>Salvia aethiopis</i> (Lamiaceae)	
97	yosgadensolide A	<i>Salvia yosgadensis</i> (Lamiaceae)	
98	yosgadensolide B	<i>Salvia yosgadensis</i> (Lamiaceae)	
99	6 α ,14-dihydroxymanoyloxide-15,17-dien-15(<i>E</i>)-16,19-olide	<i>Salvia yosgadensis</i> (Lamiaceae)	
100	6 α ,14-dihydroxy-13- <i>epi</i> -manoyloxide-15,17-dien-16,19-olide	<i>Salvia yosgadensis</i> (Lamiaceae)	
101	6 α ,16-dihydroxymanoyloxide-13- <i>epi</i> -14,17-dien-16,19-olide	<i>Salvia yosgadensis</i> (Lamiaceae)	
102	(4 <i>R</i> ,5 <i>R</i> ,8 <i>R</i> ,9 <i>R</i> ,10 <i>S</i> ,13 <i>S</i> ,14 <i>S</i>)-14-hydroxymanoyloxide-15,17-dien-15(<i>Z</i>)-16,19-olide	<i>Salvia mirzayanii</i> (Lamiaceae)	
103	(4 <i>R</i> ,5 <i>R</i> ,8 <i>R</i> ,9 <i>R</i> ,10 <i>S</i> ,13 <i>R</i> ,14 <i>S</i>)-14-hydroxymanoyloxide-15,17-dien-15(<i>Z</i>)-16,19-olide	<i>Salvia mirzayanii</i> (Lamiaceae)	
104	(4 <i>R</i> ,5 <i>R</i> ,8 <i>R</i> ,9 <i>R</i> ,10 <i>S</i> ,13 <i>S</i> ,14 <i>R</i>)-14-hydroxymanoyloxide-15,17-dien-15(<i>Z</i>)-16,19-olide	<i>Salvia mirzayanii</i> (Lamiaceae)	
105	(4 <i>R</i> ,5 <i>R</i> ,8 <i>R</i> ,9 <i>R</i> ,10 <i>S</i> ,13 <i>S</i> ,16 <i>R</i>)-14-hydroxymanoyloxide-17-en-16,19-olide	<i>Salvia mirzayanii</i> (Lamiaceae)	
106	(4 <i>R</i> ,5 <i>R</i> ,8 <i>R</i> ,9 <i>R</i> ,10 <i>S</i> ,13 <i>R</i>)-manoyloxide-15,17-dien-15(<i>Z</i>)-16,19-olide	<i>Salvia mirzayanii</i> (Lamiaceae)	
107	lachnocalyxolide C	<i>Salvia lachnocalyx</i> (Lamiaceae)	
108	lachnocalyxolide C'	<i>Salvia lachnocalyx</i> (Lamiaceae)	
109	(14 <i>E</i>)-methylmanoyloxide-14,16,18-trien-19,16-oxide-23-carboxylate	<i>Salvia tingitana</i> (Lamiaceae)	

Com.	Names	Sources	Bioactivities
110	(13 <i>E</i>)-4 α ,6 α ,8 α -trihydroxyabd-13(14),17(18)-dien-16,19-olide	<i>Salvia tingitana</i> (Lamiaceae)	
111	yosgadensonol	<i>Salvia yosgadensis</i> (Lamiaceae)	
112	13- <i>epi</i> -yosgadensonol	<i>Salvia yosgadensis</i> (Lamiaceae)	
113	6-dehydroxy-yosgadensonol	<i>Salvia limbata</i> (Lamiaceae)	
114	6-dehydroxy-13- <i>epi</i> -yosgadensonol	<i>Salvia limbata</i> (Lamiaceae)	
115	17,18,19,20-tetranor-13- <i>epi</i> -manoyloxide-14-en-16-oic acid-23,6 α -olide	<i>Salvia sahendica</i> (Lamiaceae)	
116	leucosceptroid C	<i>Leucosceptrum canum</i> (Lamiaceae)	antifeedant activity
117	leucosceptroid D	<i>Leucosceptrum canum</i> (Lamiaceae)	
118	leucosesterterpenone	<i>Leucosceptrum canum</i> (Lamiaceae)	prolylendopeptidase inhibitory activity
119	14 β -methylleucosesterterpenone	<i>Leucosceptrum canum</i> (Lamiaceae)	
120	eurysoloid A	<i>Eurysolen gracilis</i> (Lamiaceae)	immunosuppressive activity
121	eurysoloid B	<i>Eurysolen gracilis</i> (Lamiaceae)	immunosuppressive activity; inhibiting adipogenesis
122	colquhounoid A	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	antifeedant activity; antifungal activity
123	colquhounoid D	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	immunosuppressive activity
124	14- <i>epi</i> -colquhounoid D	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	immunosuppressive activity
125	norcolquhounoid A	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	
126	norcolquhounoid B	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	
127	norcolquhounoid C	<i>Colquhounia coccinea</i> var. <i>mollis</i> (Lamiaceae)	
128	salvileucolidone	<i>Salvia hypoleuca</i> (Lamiaceae)	

Com.	Names	Sources	Bioactivities
129	cheilanthatriol; cheilanthetriol; cheilarinosin	<i>Cheilanthes farinosa</i> (fern of Pteridaceae); <i>Aleuritopteris khunii</i> (fern of Pteridaceae); <i>A. mexicana</i> (fern of Pteridaceae)	
130	cheilanthenediol	<i>Aleuritopteris khunii</i> (fern of Pteridaceae)	
131	(17Z)-13,19-epoxycheilanth-17-en-6 α -ol	<i>Aleuritopteris mexicana</i> (fern of Pteridaceae)	
132	(17Z)-cheilantha-13(24),17-diene-6 α ,19-diol	<i>Aleuritopteris agetae</i> (fern of Pteridaceae)	
133	(17Z)-cheilantha-13(24),17-diene-1 β ,6 α ,19-triol	<i>Aleuritopteris agetae</i> (fern of Pteridaceae)	
134	(17Z)-19-acetoxycheilantha-13(24),17-diene-1 β ,6 α -diol	<i>Aleuritopteris agetae</i> (fern of Pteridaceae)	
135	24,25- <i>O</i> -diacetylvulgaroside	<i>Cydonia vulgaris</i> (Rosaceae)	
136	25- <i>O</i> -acetylvulgaroside	<i>Cydonia vulgaris</i> (Rosaceae)	
137	24- <i>O</i> -acetyl-25- <i>O</i> -cinnamoylvulgaroside	<i>Cydonia vulgaris</i> (Rosaceae)	
138	25- <i>O</i> -cinnamoylvulgaroside	<i>Cydonia vulgaris</i> (Rosaceae)	
139	(3 <i>R</i>)-malonyl-(13 <i>S</i>)-hydroxycheilanth-17-en-19-oate	<i>Aletris farinosa</i> (Nartheciaceae)	
140	none	<i>Aletris farinosa</i> (Nartheciaceae)	
141	none	<i>Aletris farinosa</i> (Nartheciaceae)	
142	none	<i>Aletris farinosa</i> (Nartheciaceae)	
143	cachemiridiol	<i>Aralia cachemirica</i> (Araliaceae)	
144	cristasesterterpenoic acid	<i>Caesalpinia crista</i> (Fabaceae)	
145	cristasesterterpinol glucoside	<i>Caesalpinia crista</i> (Fabaceae)	
146	17-oxo-18,19-bisnorcheilanth-13(24)-en-6 α -ol	<i>Aleuritopteris agetae</i> (fern of Pteridaceae)	
147	13,17-dioxo-18,19,24-trisnorcheilanth-6 α -ol	<i>Aleuritopteris agetae</i> (fern of Pteridaceae)	
148	nitinol	<i>Gentianella nitida</i> (Gentianaceae)	enhancing IL-2 gene expression in human T cell
149	alborosin	<i>Gentianella nitida</i> ; <i>G. turkestanorum</i> (Gentianaceae)	
150	18- <i>epi</i> -alborosin	<i>Gentianella turkestanorum</i> (Gentianaceae)	immunosuppressive activity

Com.	Names	Sources	Bioactivities
151	gentianelloid A	<i>Gentianella turkestanorum</i> (Gentianaceae)	immunosuppressive activity
152	gentianelloid B	<i>Gentianella turkestanorum</i> (Gentianaceae)	immunosuppressive activity
153	none	<i>Aletris farinosa</i> (Nartheciaceae)	
154	none	<i>Aletris farinosa</i> (Nartheciaceae)	
155	nitidasin	<i>Gentianella nitida</i> ; <i>G. turkestanorum</i> (Gentianaceae)	immunosuppressive activity
156	gentianelloid C	<i>Gentianella turkestanorum</i> (Gentianaceae)	
157	gentianelloid D	<i>Gentianella turkestanorum</i> (Gentianaceae)	
158	gentianelloid E	<i>Gentianella turkestanorum</i> (Gentianaceae)	
159	gentianelloid F	<i>Gentianella turkestanorum</i> (Gentianaceae)	immunosuppressive activity
160	18- <i>epi</i> -nitidasin	<i>Gentianella turkestanorum</i> (Gentianaceae)	
161	18- <i>epi</i> -gentianelloid C	<i>Gentianella turkestanorum</i> (Gentianaceae)	
162	18- <i>epi</i> -gentianelloid D	<i>Gentianella turkestanorum</i> (Gentianaceae)	
163	18- <i>epi</i> -gentianelloid E	<i>Gentianella turkestanorum</i> (Gentianaceae)	
164	18- <i>epi</i> -gentianelloid F	<i>Gentianella turkestanorum</i> (Gentianaceae)	
165	aspterpenacid C	<i>Swertia bimaculata</i> (Gentianaceae)	inhibiting NO production and HIV-1 replication
166	gypmacrophin A	<i>Gypsoplaca macrophylla</i> (lichen of Gypsoplacaceae)	inhibiting acetylcholinesterase
167	retigeranic acid A	<i>Lobaria retigera</i> (lichen of Lobariaceae)	
168	retigeran-11-ol	<i>Leprocaulon microscopicum</i> (lichen of Leprocaulaceae)	
169	4-hydroxyretigeran-11-ol	<i>Leprocaulon microscopicum</i> (lichen of Leprocaulaceae)	
170	retigeranic acid B	<i>Lobaria retigera</i> (lichen of Lobariaceae)	
171*	none	<i>Aralia cachemirica</i> (Araliaceae)	
172*	none	<i>Hemidesmus indicus</i> (Asclepiadaceae)	

Com.	Names	Sources	Bioactivities
173*	heliocide H ₂	<i>Gossypium hirsutum</i> (Malvaceae)	
174*	genepolide	<i>Artemisia umbelliformis</i> (Asteraceae)	
175*	involudispirone A	<i>Stahlianthus involucratus</i> (Zingiberaceae)	
176*	hedyosulide	<i>Hedyosmum brasiliense</i> (Chloranthaceae)	
177*	dibritannilactone A	<i>Inula britannica</i> (Asteraceae)	
178*	raoulic acid	<i>Raoulia australis</i> (Asteraceae)	
179*	goniocarpic acid	<i>Serjania goniocarpa</i> (Sapindaceae)	
180*	phellogine	<i>Phellodendron chinense</i> var. <i>glabriusculum</i> (Rutaceae)	
181*	simarolide	<i>Simaruha amara</i> (Simaroubaceae)	
182*	biyoulactone D	<i>Hypericum chinense</i> (Clusiaceae)	
183	(+)-thalianatriene; (+)-arathanatriene	<i>At</i> -TPS18 from <i>Arabidopsis thaliana</i>	
184	(-)-caprutriene	Cr237 from <i>Capsella rubella</i>	
185	(+)-astellatene	<i>At</i> -TPS30 from <i>Arabidopsis thaliana</i>	
186	(-)-retigeranin B	<i>At</i> -TPS19 from <i>Arabidopsis thaliana</i>	
187	(-)-variculartriene A	<i>At</i> -TPS25 from <i>Arabidopsis thaliana</i>	
188	(-)-aleurodiscalene A	Bo250 from <i>Brassica oleracea</i>	
189	(-)- <i>ent</i> -quiannulatene	<i>At</i> -TPS25 from <i>Arabidopsis thaliana</i>	
190	(+)-boleracene	Bo250 from <i>Brassica oleracea</i>	
191	(-)-fusaproliferene	<i>At</i> -TPS19 ^{Y428D} from <i>Arabidopsis thaliana</i>	
192	(-)-variculatriene B	<i>At</i> -TPS19 ^{Y428D} from <i>Arabidopsis thaliana</i>	
193	(+)-aleurodiscalene B	<i>At</i> -TPS19 ^{Y428D} from <i>Arabidopsis thaliana</i>	
194	(+)-brassitetraene A	<i>At</i> -TPS17 from <i>Arabidopsis thaliana</i> ; Br580 from <i>Brassica rapa</i> , Cr089 from <i>Capsella rubella</i> ; Cst725 from <i>Camelina sativa</i>	

Com.	Names	Sources	Bioactivities
195	(+)-brassitetraene B	<i>At</i> -TPS17 from <i>Arabidopsis thaliana</i> ; Br580 from <i>Brassica rapa</i> , Cr089 from <i>Capsella rubella</i> ; Cst725 from <i>Camelina sativa</i>	
196	none	<i>At</i> -TPS18 ^{F496C} , <i>At</i> -TPS18 ^{F496S} and <i>At</i> -TPS18 ^{F496H} from <i>Arabidopsis thaliana</i>	
197	none	<i>At</i> -TPS18 ^{F496C} , <i>At</i> -TPS18 ^{F496S} and <i>At</i> -TPS18 ^{F496H} from <i>Arabidopsis thaliana</i>	
198	(-)-caprutriene B	Cr089 from <i>Capsella rubella</i>	
199	(+)-caprutriene C	Cr089 from <i>Capsella rubella</i>	
200	(-)-caprutriene	Cr089 from <i>Capsella rubella</i>	
201	(+)-brarapadiene A	Br580 from <i>Brassica rapa</i> ; Cst725 from <i>Camelina sativa</i>	
202	(-)-brarapadiene B	Br580 from <i>Brassica rapa</i> ; Cst725 from <i>Camelina sativa</i>	
203	(-)-arathanadiene A	<i>At</i> -TPS17 from <i>Arabidopsis thaliana</i>	
204	(-)-arathanadiene B	<i>At</i> -TPS17 from <i>Arabidopsis thaliana</i>	
205	none	<i>At</i> -TPS29 from <i>Arabidopsis thaliana</i>	
206	none	<i>At</i> -TPS06 from <i>Arabidopsis thaliana</i>	
207*	(3 <i>E</i> ,7 <i>E</i>)-dolabella-3,7-dien-18-ol	<i>At</i> -TPS06 from <i>Arabidopsis thaliana</i>	
208*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	
209*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	
210*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	
211*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	

Com.	Names	Sources	Bioactivities
212*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	
213*	none	squalene-hopene cyclase from <i>Alicyclobacillus acidocaldarius</i>	

* means that the compound is not genuine plant sesterterpenoid.