Electronic Supplementary Material (ESI) for Food & Function.

Supplementary data

Structural identification and osteogenic activity of a novel heteropolysaccharides obtained from famale flowers of *Humulus lupulus*

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Table S1. The result of HPGPC chromatogram of HLP50-2.

Retention time	Peak height (mV)	Peak area (mV*min)	Percentage (%)
23.440	232.101	5751.205	0.9335
26.665	4636.879	583998.625	94.7958
34.032	49.380	4458.700	0.7237
37.632	16.392	426.606	0.0692
47.432	34.369	21424.275	3.4776
Total	4969.121	616059.411	100.0000

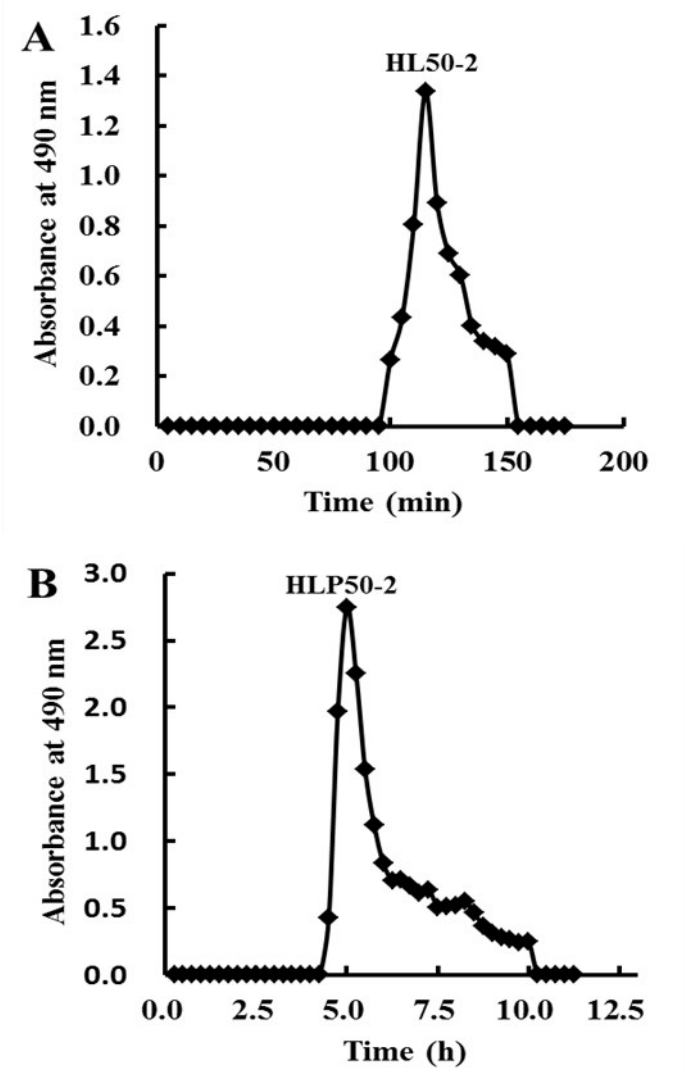


Fig. S1. (A) Elution curve profile of HL50 on DEAE-52 cellulose column. (B) Elution curve of HL50-2 on Sephadex G-75 column.

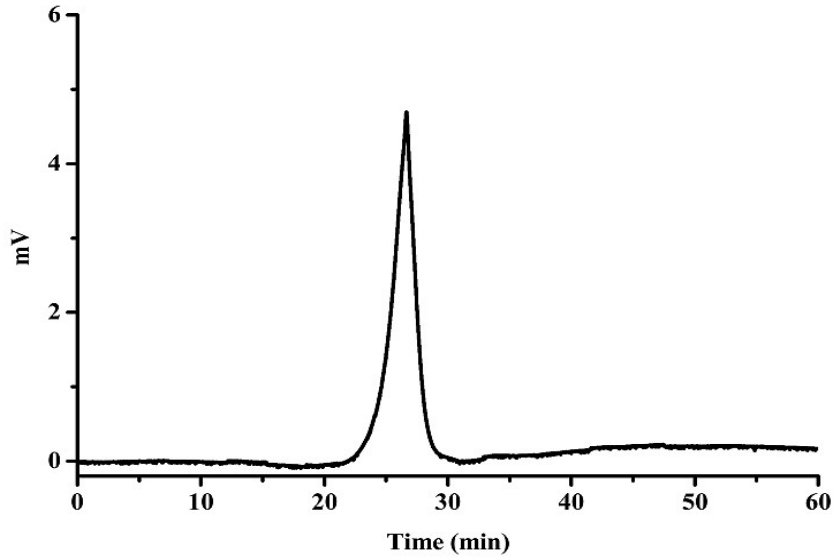


Fig. S2. HPGPC chromatogram of HLP50-2.

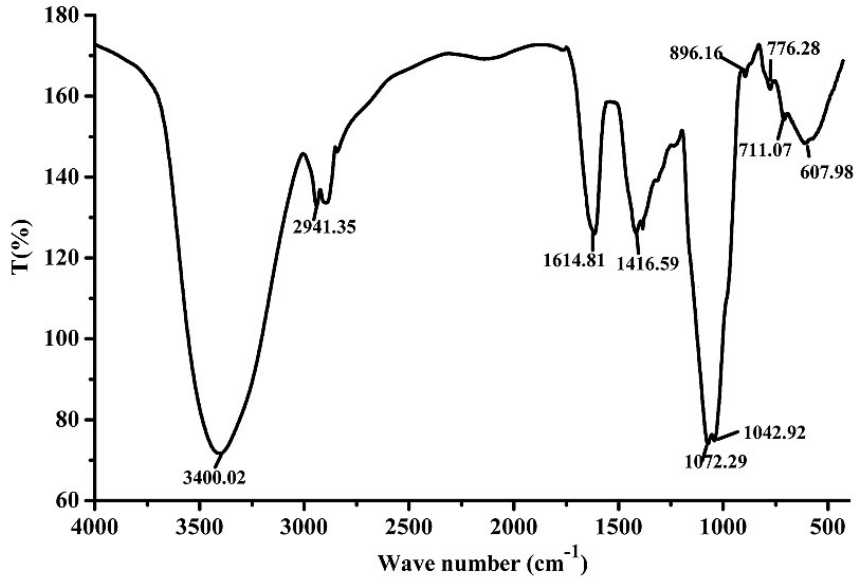
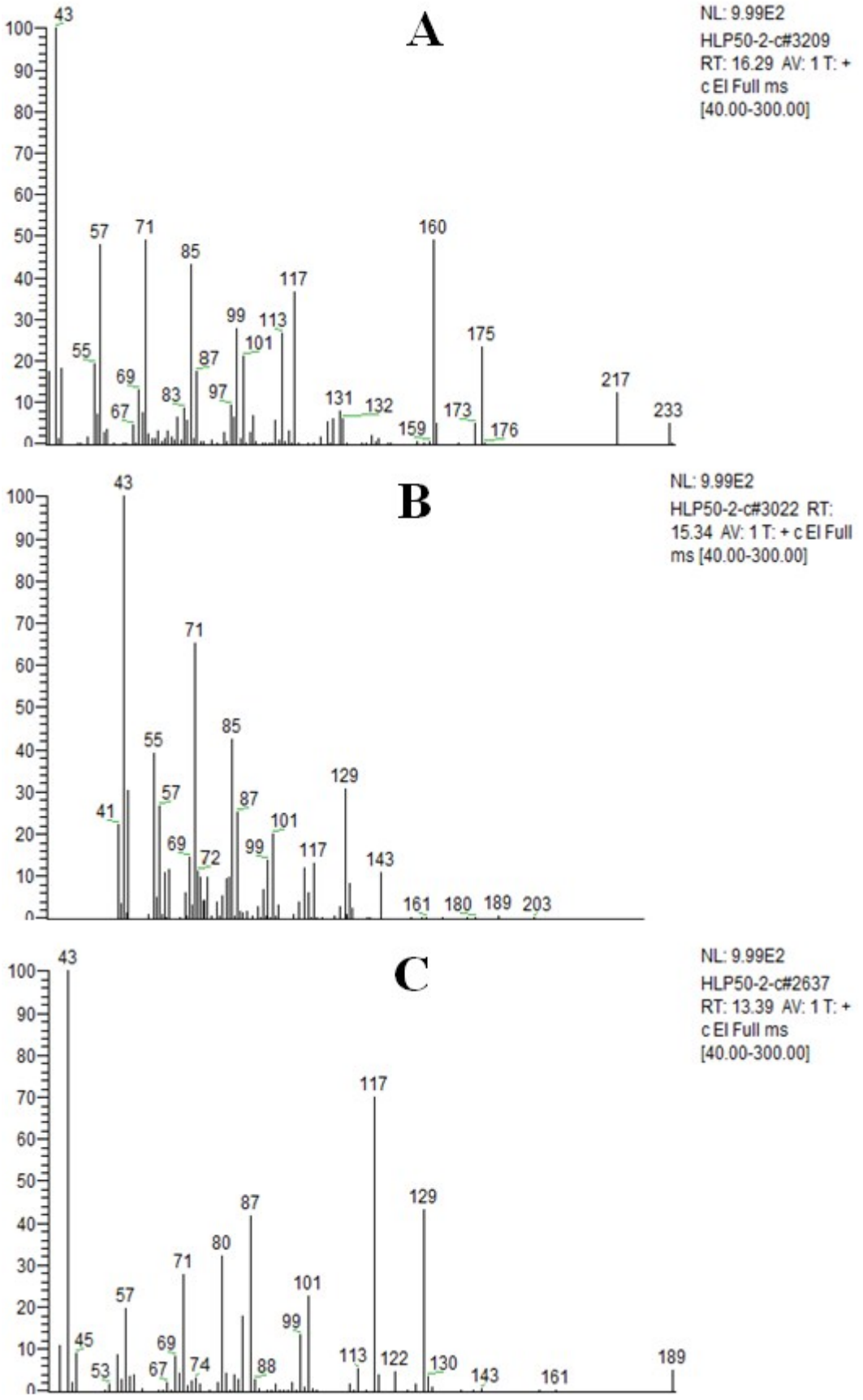
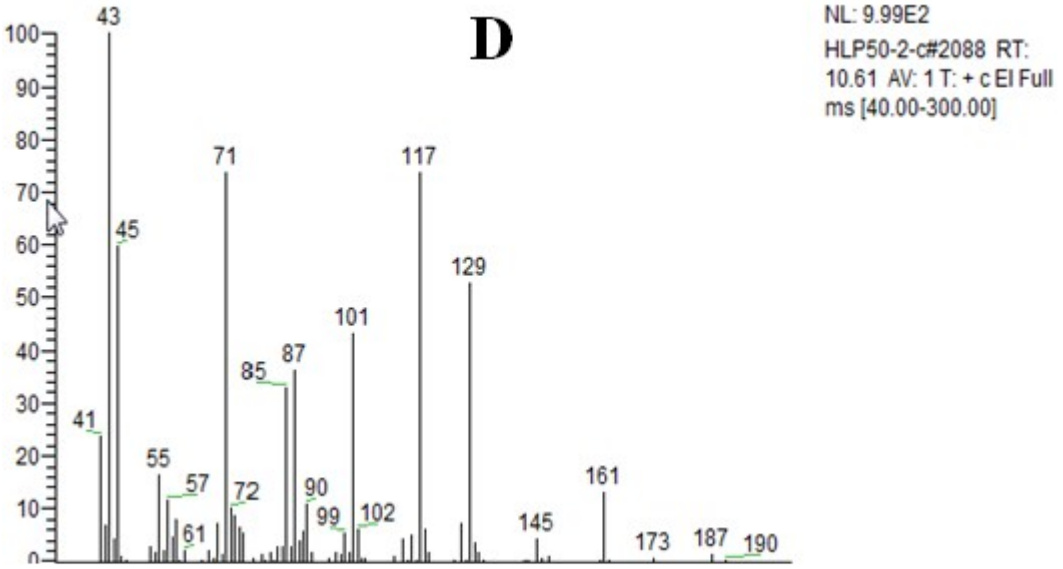
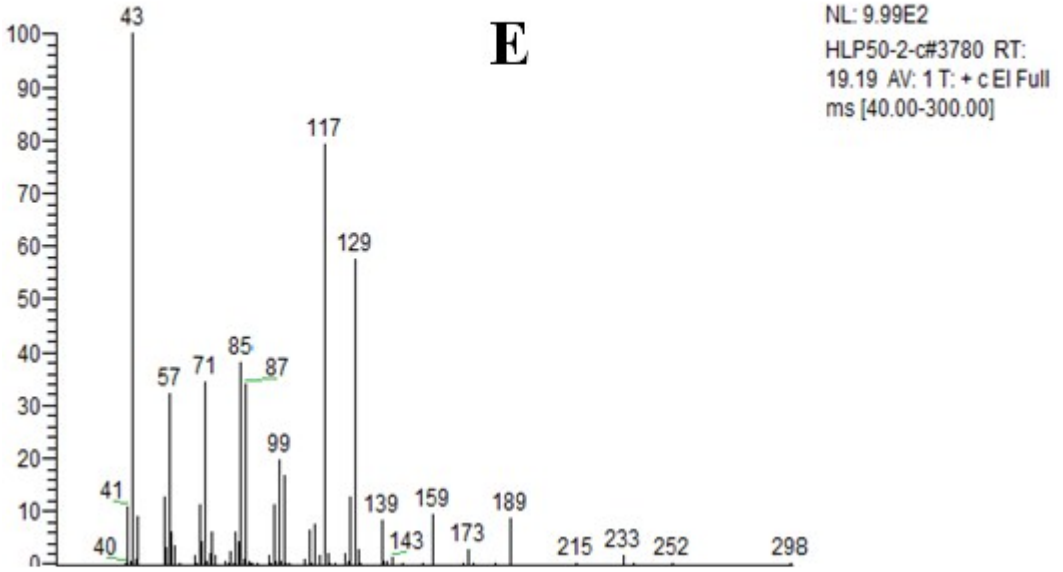
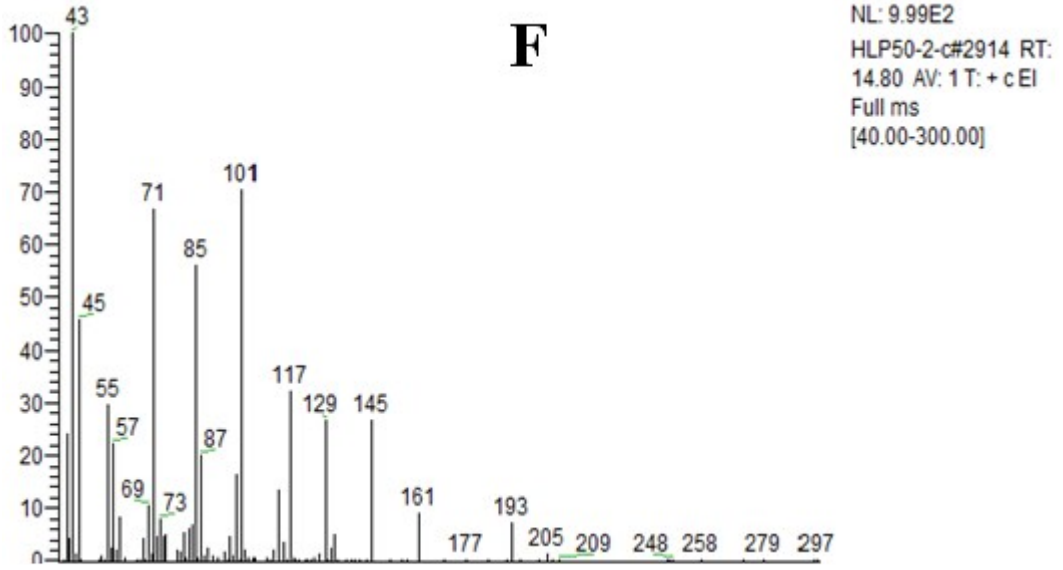


Fig. S3. FT-IR spectrum of HLP50-2.


A
NL: 9.99E2
HLP50-2-c#3209
RT: 16.29 AV: 1 T: +
c EI Full ms
[40.00-300.00]
B
NL: 9.99E2
HLP50-2-c#3022 RT:
15.34 AV: 1 T: + c EI Full
ms [40.00-300.00]
C
NL: 9.99E2
HLP50-2-c#2637
RT: 13.39 AV: 1 T: +
c EI Full ms
[40.00-300.00]


D
NL: 9.99E2
HLP50-2-c#2088 RT: 10.61 AV: 1 T: + c EI Full ms [40.00-300.00]
43
71
117
45
129
101
87
85
41
55
57
72
90
99
102
161
61
145
173
187
190


E
NL: 9.99E2
HLP50-2-c#3780 RT: 19.19 AV: 1 T: + c EI Full ms [40.00-300.00]
43
117
129
85
57
71
87
99
41
139
159
189
40
143
173
215
233
252
298


F
NL: 9.99E2
HLP50-2-c#2914 RT: 14.80 AV: 1 T: + c EI Full ms [40.00-300.00]
43
101
71
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129
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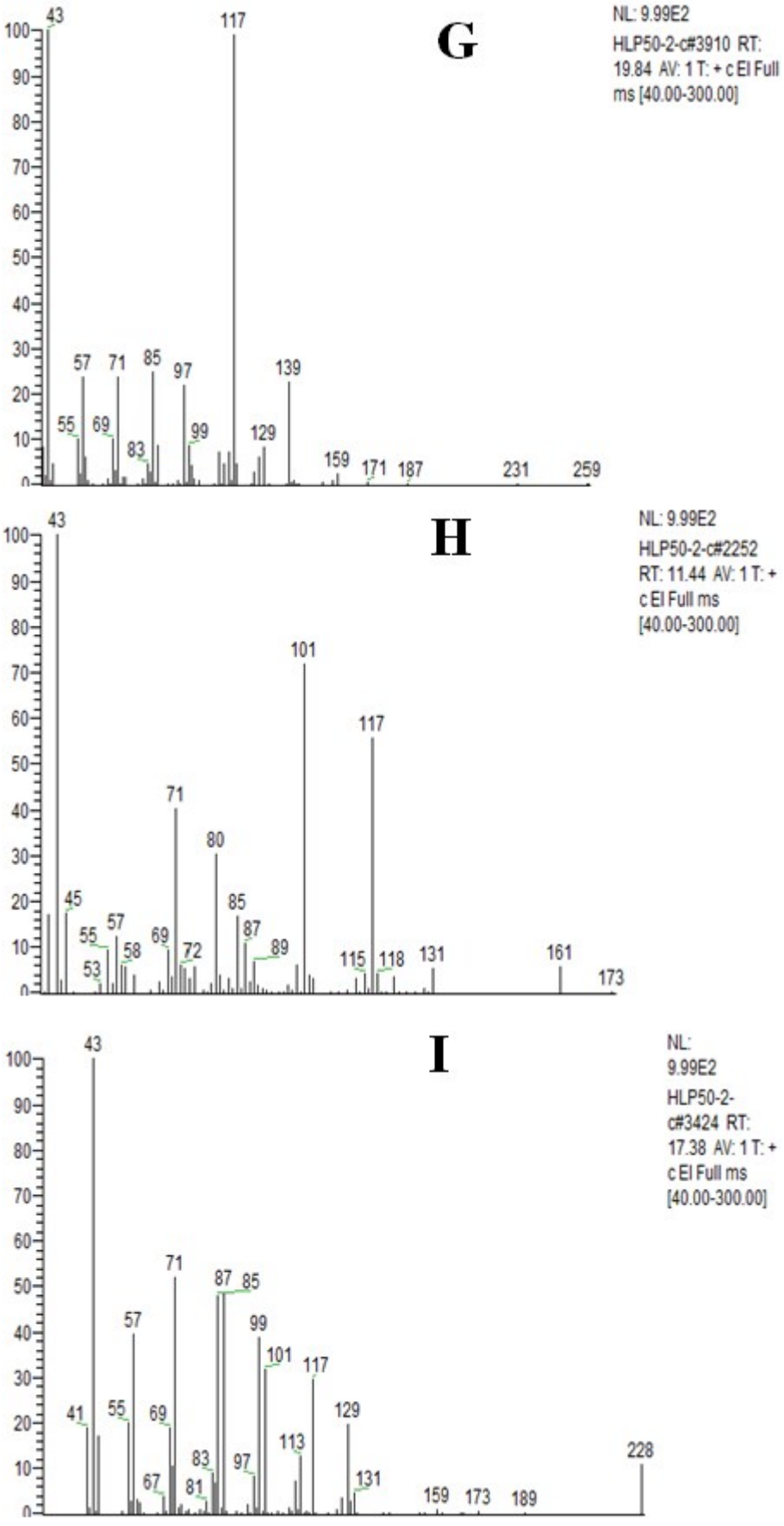
73
161
193
177
205
209
248
258
279
297


G
NL: 9.99E2
HLP50-2-c#3910 RT: 19.84 AV: 1 T: + c EI Full ms [40.00-300.00]
H
NL: 9.99E2
HLP50-2-c#2252 RT: 11.44 AV: 1 T: + c EI Full ms [40.00-300.00]
I
NL: 9.99E2
HLP50-2-c#3424 RT: 17.38 AV: 1 T: + c EI Full ms [40.00-300.00]

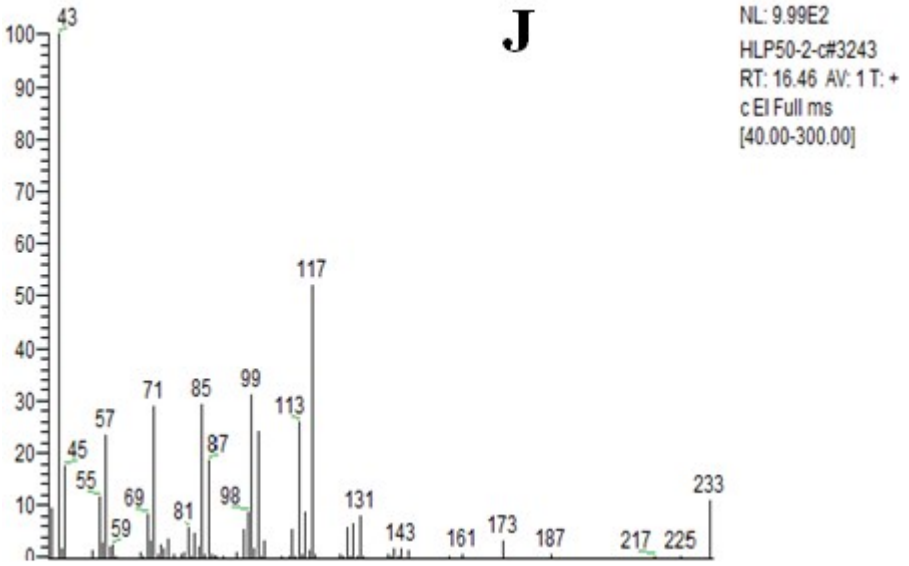


Fig. S4. (A) The mass spectra of 1, 4, 5-tri-*O*-acetyl-2, 3, 6-tri-*O*-methyl-D-Glucitol.

(B) The mass spectra of 1, 4, 5-tri-*O*-acetyl-2, 3-di-*O*-methyl-6-deoxy-L-Mannitol.

(C) The mass spectra of 1, 4, 5-tri-*O*-acetyl-2, 3-di-*O*-methyl-L-Arabitol.

(D) The mass spectra of 1, 4-di-*O*-acetyl-2, 3, 5-tri-*O*-methyl-L-Arabitol.

(E) The mass spectra of 1, 3, 5, 6-tetra-*O*-acetyl-2, 4-di-*O*-methyl-D-Galactitol.

(F) The mass spectra of 1, 5-di-*O*-acetyl-2, 3, 4, 6-tetra-*O*-methyl-D-Galactitol.

(G) The mass spectra of 1, 3, 4, 5, 6-penta-*O*-acetyl-2-*O*-methyl-D-Galactitol.

(H) The mass spectra of 1, 5-di-*O*-acetyl-2, 3, 4-tri-*O*-methyl-D-Xylitol.

(I) The mass spectra of 1, 5, 6-tri-*O*-acetyl-2, 3, 4-tri-*O*-methyl-D-Galactitol.

(J) The mass spectra of 1, 4, 5-tri-*O*-acetyl-2, 3, 6-tri-*O*-methyl-D-Galactitol.