Supplementary data

Scheme S1: Proposed ESI-MS/MS fragmentation pathway for Chavicol (1) and Hydroxychavicol (2)

Scheme S2: Proposed ESI-MS/MS fragmentation pathway for Coniferaldehyde (1) and Sinapinaldehyde (2).
Scheme S3: Proposed ESI-MS/MS fragmentation pathway for Quercetin.

Scheme S4: Proposed ESI-MS/MS fragmentation pathway for Catechin.
**Scheme S5**: Proposed ESI-MS/MS fragmentation pathway for 8-Hydroxy-5, 7-dimethoxyflavanone.

**Scheme S6**: Proposed ESI-MS/MS fragmentation pathway for Pluviatilol.
Scheme S7: Proposed ESI-MS/MS fragmentation pathway for Kusunokinin.

Scheme S8: Proposed ESI-MS/MS fragmentation pathway for Chlorogenic acid.

Scheme S9: Proposed ESI-MS/MS fragmentation pathway for Pyrogallol.
Scheme S10: Proposed ESI-MS/MS fragmentation pathway for 3-(2, 4, 5-Trimethoxyphenyl)-2-acetoxy-1-hydroxypropane

Scheme S11: Proposed ESI-MS/MS fragmentation pathway for Nerolidol.

MS2 Spectra of Chavicol (m/z 135).
MS2 Spectra of Hydroxychavicol (m/z 151).

MS2 Spectra of Eugenol (m/z 165).

MS2 Spectra of Methoxy eugenol (m/z 195).

MS2 Spectra of Chavicol acetate (m/z 177).
MS2 Spectra of Allylpyrocatechol monoacetate (m/z 193).

MS2 Spectra of Eugenyl acetate (m/z 207).

MS2 Spectra of Allylpyrocatechol-3, 4-diacetate (m/z 235).

MS2 Spectra of Coniferaldehyde (m/z 179).
MS2 Spectra of Sinapinaldehyde (m/z 209).

MS2 Spectra of Quercetin (m/z 303).

MS2 Spectra of Catechin (m/z 291).

MS2 Spectra of 8-Hydroxy-5, 7-dimethoxyflavanone (m/z 301).
MS2 Spectra of Pluviatilol (m/z 357).

MS2 Spectra of Kusunokinin (m/z 371).

MS2 Spectra of Chlorogenic acid (m/z 355).

MS2 Spectra of Pyrogallol (m/z 127).
MS2 Spectra of 3-(2, 4, 5-Trimethoxyphenyl)-2-acetoxy-1-hydroxypropane (m/z 285).

**Response factor for different concentrations**

<table>
<thead>
<tr>
<th>Allylpyrocatechol-3, 4-diacetate</th>
<th>Eugenyl acetate</th>
<th>Eugenol</th>
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<tbody>
<tr>
<td>26.2</td>
<td>1.3</td>
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<tr>
<td>26.3</td>
<td>1.3</td>
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<td>26.4</td>
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<td>25.8</td>
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<td>25.7</td>
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<tr>
<td>25.5</td>
<td>1.2</td>
<td>0.2</td>
</tr>
<tr>
<td>24.6</td>
<td>1.1</td>
<td>0.2</td>
</tr>
</tbody>
</table>
Residual analysis was performed to ascertain linearity

Figure S1. Concentration Vs Residual plot of allylpyrocatechol-3, 4-diacetate, eugenyl acetate and eugenol.
Results of column and MP screening: UPLC chromatograms of *Piper betle* (Bangladeshi) leaf extract

**Column:** ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** Water–methanol

**Column:** ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** 0.1% formic acid in water (A) – methanol (B)

**Column:** ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** Water (A)-acetonitrile (B)

**Column:** ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** 0.1% formic acid in water (A) – acetonitrile (B)
Column: ACQUITY CSH C18 (100 mm × 2.1 mm, 1.7 µm), Mobile phase: 0.1% formic acid in water (A) – acetonitrile (B)