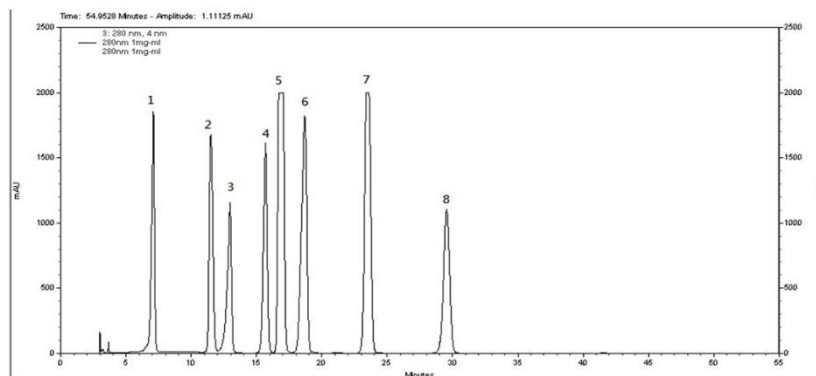


Supplementary Materials:

(A)



(B)

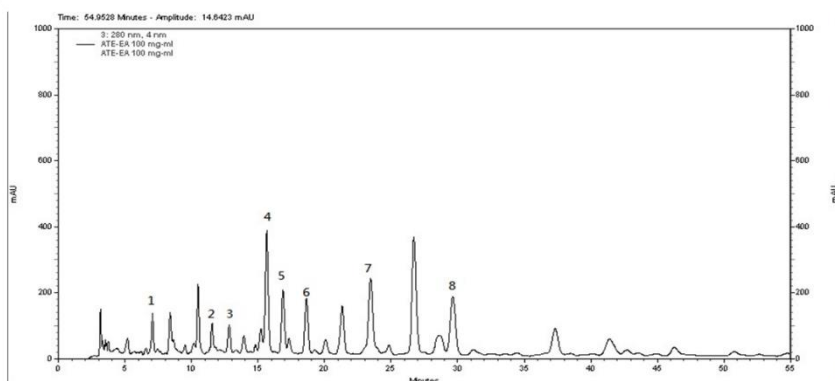


Figure S1. Chromatogram of a phenolic compounds (A) and ethyl acetate fraction of the adlay extract (ATE-EA) monitored at 280 nm. 1: protocatechnic acid. 2: o-hydroxybenzoic acid. 3: chlorogenic acid. 4: vanillic acid. 5: o-hydroxybenzaldehyde. 6: syringic acid. 7: vanillin. 8: syringaldehyde. 9: caffeic acid. 10: p-coumaric acid. 11: ferulic acid.

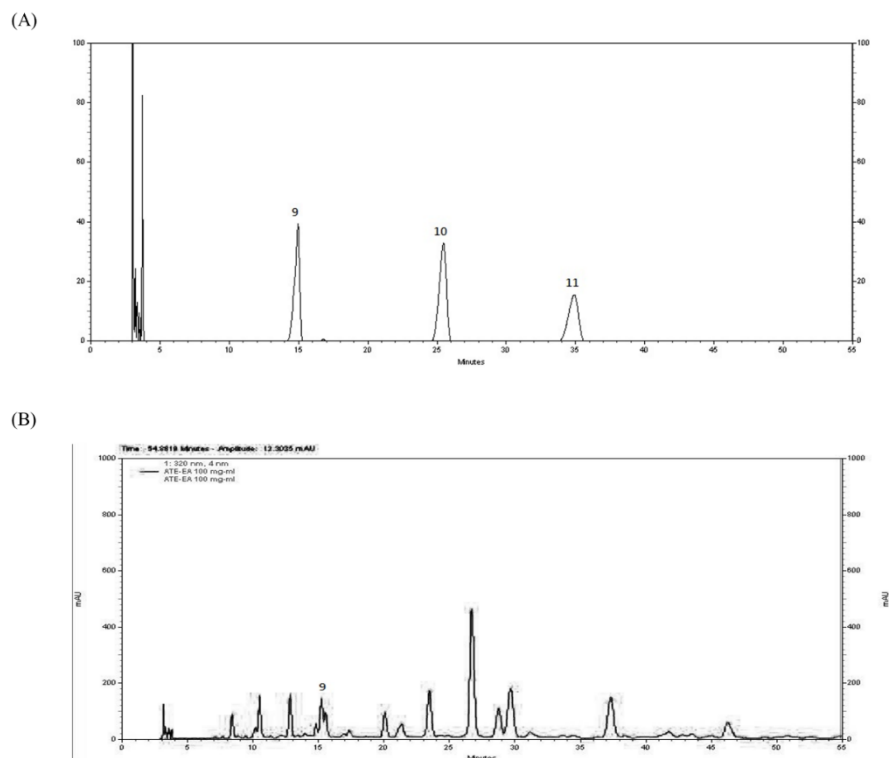


Figure S2. Chromatogram of a phenolic compounds (A) and ethyl acetate fraction of the adlay extract (ATE-EA) monitored at 320 nm. 1: protocathechin acid. 2: *o*-hydroxybenzoic acid. 3: chlorogenic acid. 4: vanillic acid. 5: *o*-hydroxybenzaldehyde. 6: syringic acid. 7: vanillin. 8: syringaldehyde. 9: caffeic acid. 10: *p*-coumaric acid. 11: ferulic acid.

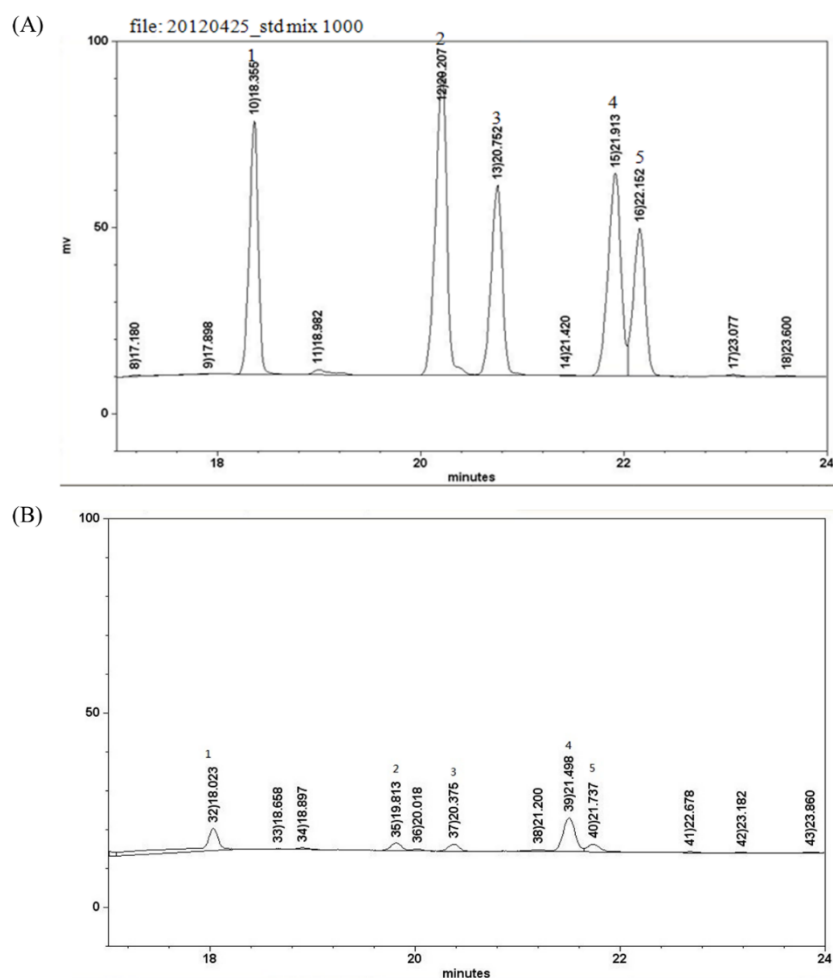


Figure S3. Peaks were identified from the retention times of standard compounds (A) and ethyl acetate fraction of the adlay extract (ATE-EA) (B). 1, cholesterol; 2, campesterol; 3, stigmasterol; 4, β -sitosterol; 5, stigmastanol. Cholesterol was used as the internal standard.

Table S1. Detection and quantification for the contents of fatty acid compounds from ATE-EA.

| Compound (mg/g) | ATE-EA |
|------------------------------------|--------|
| 8:0 Caprylic acid | N.D. |
| 10:0 Capric acid | N.D. |
| 12:0 Lauric acid | N.D. |
| 14:0 Myristic acid | N.D. |
| 14:1 Myristoleic acid | N.D. |
| 16:0 Palmitic acid | 161 |
| 16:1 Palmitoleic acid | N.D. |
| 18:0 Stearic acid | 12 |
| 18:1 Oleic acid | 467 |
| 18:2 Linoleic acid | 345 |
| 18:3 γ -linolenic acid | N.D. |
| 18:3 α -linolenic acid | N.D. |
| 20:0 Arachidic acid | N.D. |
| 20:1 Eicosaenoic acid | N.D. |
| 20:2 Eicosadienoic acid | N.D. |
| 20:3 γ -Eicosatrienoic acid | N.D. |
| 20:3 α -Eicosatrienoic acid | N.D. |
| 20:4 Arachidonic acid | N.D. |
| 20:5 Eicosapentaenoic acid | N.D. |
| 22:0 Behenic acid | N.D. |
| 22:1 Erucic acid | N.D. |
| 22:2 Docosadienoic acid | N.D. |
| 22:4 Docosatetraenoic acid | N.D. |
| 22:5 Docosapentaenoic acid | N.D. |
| 22:6 Docosahexaenoic acid | N.D. |
| 24:0 Lignoceric acid | N.D. |
| 24:1 Nervonic acid | N.D. |
| Others | 14 |

N.D.: Not detected.

Table S2. The retention time, regression equation and regression coefficient of the phenolic compounds.

| Compound | Retention time (min) | Regression equation | Regression coefficient (r^2) |
|-------------------------------|----------------------|-----------------------------|----------------------------------|
| 280nm | | | |
| protocatechnic acid | 7.02 | $y=108568732.9x+1181073.69$ | 0.9999 |
| <i>p</i> -hydroxybenzoic acid | 11.54 | $y=129553867.1x+2594215.43$ | 0.9981 |
| chlorogenic acid | 12.813 | $y=103073849.9x+355106.94$ | 0.9999 |
| vanillic acid | 15.653 | $y=136177380.9x+929389.7$ | 0.9997 |
| <i>p</i> -hydroxybenzaldehyde | 16.86 | $y=618704222.2x+582145.44$ | 0.9999 |
| syringic acid | 18.627 | $y=199333462.7x+1678917.23$ | 0.9996 |
| vanillin | 23.46 | $y=339212539x+305480.72$ | 0.9999 |
| syringaldehyde | 29.627 | $y=140613999.3x+769250.19$ | 0.9999 |
| 320nm | | | |
| caffeic acid | 15.173 | $y=309350875x+5427362.73$ | 0.9957 |
| <i>p</i> -coumaric acid | 25.893 | $y=382978154x+7472195.23$ | 0.9969 |
| ferulic acid | 34.373 | $y=373821554.3x+1737533.3$ | 0.9997 |

Table S3. The retention time, regression equation and regression coefficient of the flavonoid compounds.

| Compound | Retention time (min) | Regression equation | Regression coefficient (r^2) |
|---------------------------------------|----------------------|--------------------------|----------------------------------|
| Liquiritigenin | 7.1 | $y=1615.17x+32171.73$ | 0.9856 |
| Quercetin | 8.14 | $y=89295.84x-1214520.38$ | 0.9879 |
| Naringenin | 10.913 | $y=10218.08x-25052.23$ | 0.9976 |
| Chrysoeriol | 12.207 | $y=67636.98x+31111.93$ | 0.9994 |
| Quercetin-3,5,7,3',4-pentamethylether | 20.307 | $y=124605.57x-465334.24$ | 0.9891 |