Electronic Supplementary Material (ESI) for RSC Advances.


**Fig. S1** Psoralea corylifolia seeds

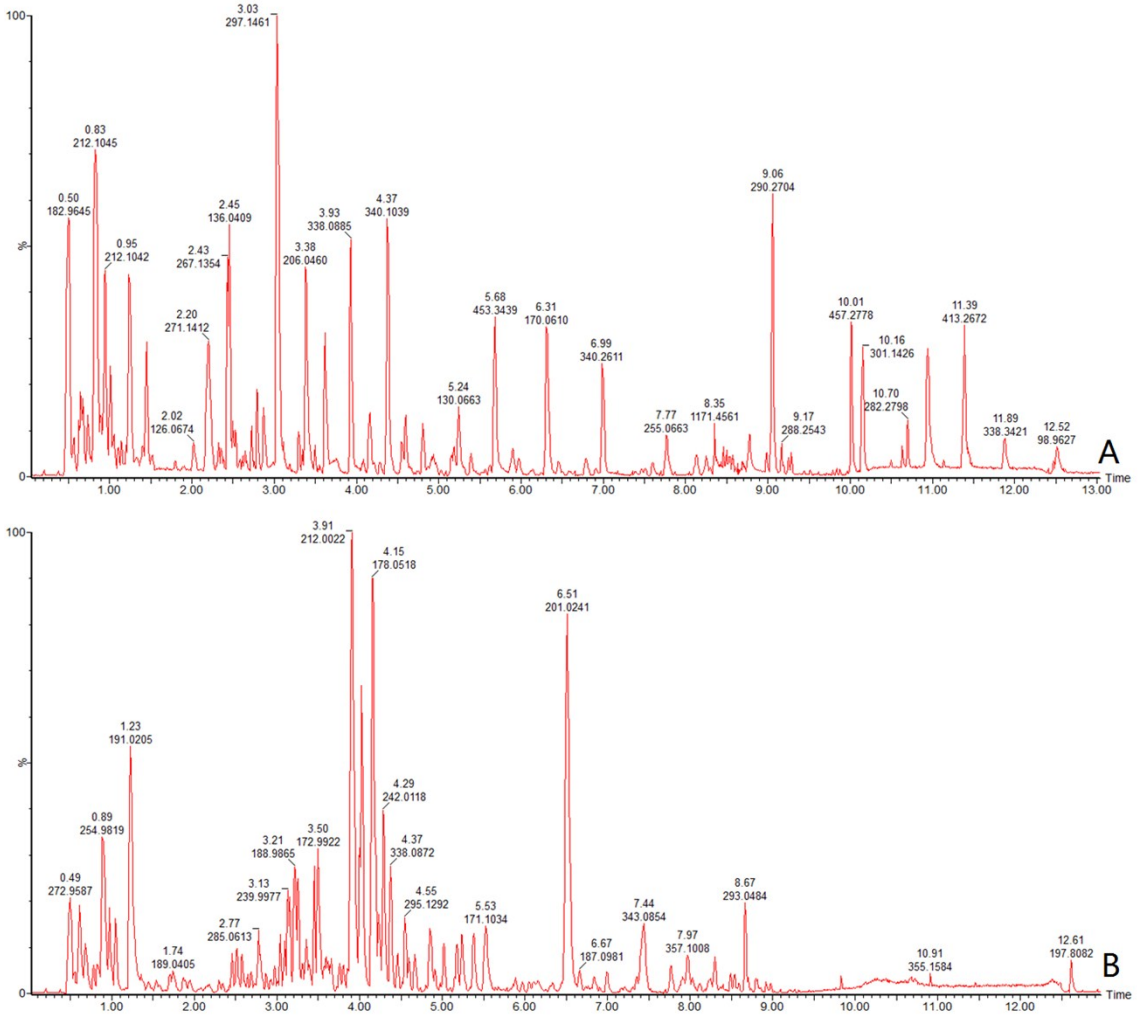


**Fig.S2.** UPLC chromatogram of the PCS samples. (A) Positive ion mode. (B) Negative ion mode.

Table S1: The metabolite signatures information through untargeted liquid chromatography coupled with mass spectrometry.

| Rt/min | M/Z | Exact mass | Scan mode | M+X | Proposed composition | Predicting compound | HMDB ID | Mass Error (ppm) | Chang trend | Callback trend |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.67 | 348.0712 | 347.2212 | ESI+ | M+H | $C_{10}H_{14}N_5O_7P$ | Adenosine monophosphate | HMDB0000045 | 2.297 | ↑** | ## |
| 0.68 | 300.049 | 301.1877 | ESI- | M-H | $C_8H_{16}NO_9P$ | N-Acetyl-D-Glucosamine 6-Phosphate | HMDB0001062 | -0.03 | ↑** | |
| 0.78 | 351.073 | 352.2928 | ESI- | M-H | $C_{16}H_{16}O_9$ | Chlorogenoquinone | HMDB0029383 | 2.48 | ↓** | # |
| 0.9 | 259.0974 | 258.2693 | ESI+ | M+H | $C_{15}H_{14}O_4$ | O-Desmethylangolensin | HMDB0004629 | 3.39 | ↓* | |
| 1.21 | 455.2041 | 454.5122 | ESI+ | M+H | $C_{26}H_{30}O_7$ | Desoxylimonin | HMDB0035031 | -5.17 | ↑** | |
| 1.23 | 85.0299 | 86.0892 | ESI- | M-H | $C_4H_6O_2$ | Gamma-Butyrolactone | HMDB0000549 | 4.25 | ↓** | ## |
| 1.23 | 129.0188 | 130.0987 | ESI- | M-H | $C_5H_6O_4$ | Glutaconic acid | HMDB0000620 | -4.34 | ↓** | ## |
| 1.96 | 263.0239 | 264.252 | ESI- | M-H | $C_9H_{12}O_7S$ | 3-Methoxy-4-hydroxyphenylethyleneglycol sulfate | HMDB0000559 | 2.95 | ↑** | # |
| 2.43 | 267.1398 | 266.3343 | ESI+ | M+H | $C_{18}H_{18}O_2$ | Dienestrol | HMDB0015027 | 7.03 | ↓** | |
| 2.43 | 265.112 | 266.2979 | ESI- | M-H | $C_{15}H_{14}N_4O$ | Nevirapine | HMDB0014383 | 4.45 | ↑** | |
| 2.45 | 154.0598 | 131.1332 | ESI+ | M+Na | $C_4H_9N_3O_2$ | Creatine | HMDB0000064 | 3.67 | ↓* | # |
| 2.51 | 215.0819 | 216.2359 | ESI- | M-H | $C_{12}H_{12}N_2O_2$ | L-1,2,3,4-Tetrahydro- | HMDB0035665 | -3.37 | ↓** | |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | beta-carboline-3-carboxylic acid | | | | |
| 2.51 | 267.0799 | 268.332 | ESI- | M-H | $C_{12}H_{16}N_2O_3S$ | Cysteinyl-Phenylalanine | HMDB0028782 | -3.52 | ↑** | |
| 2.8 | 367.1774 | 366.4055 | ESI+ | M+H | $C_{19}H_{26}O_7$ | Diacetoxyscirpenol | HMDB0035104 | 6.14 | ↑** | ## |
| 2.8 | 276.146 | 275.301 | ESI+ | M+H | $C_{12}H_{21}NO_6$ | Glutarylcarnitine | HMDB0013130 | 6.595 | ↑** | ## |
| 2.8 | 247.1113 | 246.327 | ESI+ | M+H | $C_{10}H_{18}N_2O_3S$ | Methionyl-Proline | HMDB0028981 | 0.72 | ↑** | ## |
| 2.8 | 228.0061 | 229.617 | ESI- | M-H | $C_9H_8C_lNO_4$ | 4-Chloro-6,7-dimethoxy-2-benzoxazolinone | HMDB0034577 | -3.40 | ↑** | |
| 2.88 | 302.08 | 302.2788 | ESI+ | M+H | $C_{16}H_{14}O_6$ | Hesperetin | HMDB0005782 | 3.12 | ↓** | |
| 3.04 | 220.1205 | 219.2431 | ESI+ | M+H | $C_{10}H_{13}N_5O$ | Cis-zeatin | HMDB0012204 | 5.39 | ↓** | |
| 3.28 | 278.0815 | 279.29 | ESI- | M-H | $C_{17}H_{13}NO_3$ | Graveolinine | HMDB0030244 | -2.70 | ↑** | ## |
| 3.35 | 217.0151 | 218.338 | ESI- | M-H | $C_{12}H_{10}S_2$ | Diphenyl disulfide | HMDB0031823 | 0.15 | ↓** | ## |
| 3.62 | 144.0476 | 143.207 | ESI+ | M+H | $C_6H_9NOS$ | 2-Propionyl-2-thiazoline | HMDB0032493 | -1.08 | ↑* | ## |
| 3.82 | 269.0802 | 270.28 | ESI- | M-H | $C_{16}H_{14}O_4$ | Isomedicarpin | HMDB0033305 | -6.44 | ↑** | ## |
| 4.07 | 366.1682 | 365.4223 | ESI+ | M+H | $C_{22}H_{23}NO_4$ | Nequinate | HMDB0031754 | -4.86 | ↓** | |
| 4.16 | 105.0369 | 104.171 | ESI+ | M+H | $C_4H_8OS$ | S-Ethyl thioacetate | HMDB0031190 | 0.18 | ↓** | # |
| 4.16 | 179.0614 | 179.237 | ESI+ | M+H | $C_6H_{13}NO_3S$ | Cyclamic acid | HMDB0031340 | -1.20 | ↓* | |
| 4.56 | 175.124 | 174.2423 | ESI+ | M+H | $C_{11}H_{14}N_2$ | N-Methyltryptamine | HMDB0004370 | 5.84 | ↓** | |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4.67 | 91.0575 | 90.187 | ESI+ | M+H | $C_4H_{10}S$ | 2-Methyl-1-propanethiol | HMDB0031245 | -0.91 | ↑** | |
| 4.67 | 74.0254 | 75.0666 | ESI- | M-H | $C_2H_5NO_2$ | Glycine | HMDB0000123 | 8.75 | ↑** | |
| 4.69 | 306.1131 | 307.3432 | ESI- | M-H | $C_{19}H_{17}NO_3$ | N-Acetylanonaine | HMDB0030349 | -1.46 | ↑** | |
| 5.19 | 295.1355 | 296.3603 | ESI- | M-H | $C_{19}H_{20}O_3$ | Parakmerin A | HMDB0033950 | 5.20 | ↓** | |
| 5.97 | 266.1288 | 266.3343 | ESI+ | M+H | $C_{18}H_{18}O_2$ | Dienestrol | HMDB0015027 | -7.15 | ↓** | # |
| 5.97 | 265.1257 | 266.3343 | ESI- | M-H | $C_{18}H_{18}O_2$ | Dienestrol | HMDB0015027 | 8.49 | ↓** | # |
| 6.11 | 335.0656 | 334.2192 | ESI+ | M+H | $C_{11}H_{15}N_2O_8P$ | Nicotinamide ribotide | HMDB0000229 | 5.23 | ↓** | |
| 6.27 | 304.1664 | 303.3562 | ESI+ | M+H | $C_{16}H_{21}N_3O_3$ | Tryptophyl-Valine | HMDB0029096 | 2.85 | ↑** | |
| 6.86 | 389.125 | 390.388 | ESI- | M-H | $C_{20}H_{22}O_8$ | trans-Piceid | HMDB0030564 | 2.01 | ↑** | ## |
| 6.91 | 280.1403 | 280.3196 | ESI+ | M+H | $C_{14}H_{20}N_2O_4$ | Tyrosyl-Valine | HMDB0029118 | -7.01 | ↓** | |
| 6.91 | 279.1395 | 280.3609 | ESI- | M-H | $C_{19}H_{20}O_2$ | 7-(4-Hydroxyphenyl)-1-phenyl-4-hepten-3-one | HMDB0033295 | 1.43 | ↓** | |
| 7.58 | 200.1279 | 199.2469 | ESI+ | M+H | $C_{10}H_{17}NO_3$ | Ecgonine methyl ester | HMDB0006406 | -1.24 | ↑** | |
| 7.74 | 316.2018 | 315.41 | ESI+ | M+H | $C_{18}H_{25}N_3O_2$ | Saxagliptin | HMDB0015634 | -0.50 | ↑** | # |
| 7.77 | 254.0799 | 254.1809 | ESI+ | M+H | $C_6H_{15}N_4O_5P$ | L-Phosphoarginine | HMDB0029438 | 7.54 | ↓** | |
| 8.69 | 392.1841 | 391.4596 | ESI+ | M+H | $C_{24}H_{25}NO_4$ | Flavoxate | HMDB0015279 | -3.8 | ↓** | |

↑: The content of the model group was higher than that of the control group.

↓: The content of the model group was lower than that of the control group.

*: Compared with the control group, the content of markers in the model group changed significantly. ($p<0.05$)

**: Compared with the control group, the content of markers in the model group changed extremely significantly. ($p<0.01$)

#: Compared with the model group, the content of markers in treatment group changed significantly. ($p<0.05$)

##: Compared with the model group, the content of markers in treatment group changed extremely significantly. ($p<0.01$)