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Phenotypic and genotypic signature of saponin chemical composition in Chinese wild soybean (*Glycine soja*): revealing genetic diversity, geographical variation and dispersal history of the species

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Supplementary Table 1. Retention times (RT) under UV chromatograms and molecular ion masses ([M+H]⁺) of saponin components in Chinese wild soybeans

| No. | RT (min) | [M+H] ⁺ | Identification | | | | |
|-----|-------------|--------------------|----------------|-------|-----------|----------------|----------------|
| | | | Saponin | Group | Aglycone | C-3 sugar | C-22 sugar |
| 1 | 24.9 | 1107.6 | A0-ag | A | SS-A | Glc-Gal-GlcUA- | Ara- |
| 2 | 25.6 | 1077.5 | A0-aa | A | SS-A | Glc-Ara-GlcUA- | Ara- |
| 3 | 31.8 | 1033.5 | KA-ag | β | SS-KA | Glc-Gal-GlcUA- | H- |
| 4 | 33.1 | 975.5 | A-ag | A | SS-A | Glc-Gal-GlcUA- | H- |
| 5 | 33.3 | 973.5 | H-ag | α | SS-H | Glc-Gal-GlcUA- | O= |
| 6 | 33.3 | 1453.6 | HAb-ag | β | SS-HA | Glc-Gal-GlcUA- | acetylGlc-Ara- |
| 7 | 34.1 | 987.5 | I-ag | α | SS-I | Glc-Gal-GlcUA- | O= |
| 8 | 35.2 | 1059.5 | J-ag | α | SS-J | Glc-Gal-GlcUA- | O= |
| 9 | 35.4 | 1365.6 | Aa | A | SS-A | Glc-Gal-GlcUA- | acetylXyl-Ara- |
| 10 | 36.2 | 1349.6 | Au | A | SS-A | Rha-Gal-GlcUA- | acetylXyl-Ara- |
| 11 | 36.2 | 1335.6 | Ax | A | SS-A | Glc-Ara-GlcUA- | acetylXyl-Ara- |
| 12 | 36.2 | 1029.5 | J-aa | α | SS-J | Glc-Ara-GlcUA- | O= |
| 13 | 36.8 | 1437.7 | Ab | A | SS-A | Glc-Gal-GlcUA- | acetylGlc-Ara- |
| 14 | 37.4 | 1421.7 | Ac | A | SS-A | Rha-Gal-GlcUA- | acetylGlc-Ara- |
| 15 | 37.6 | 1203.6 | Ae | A | SS-A | Gal-GlcUA- | acetylXyl-Ara- |
| 16 | 37.6 | 1407.6 | Ad | A | SS-A | Glc-Ara-GlcUA- | acetylGlc-Ara- |
| 17 | 39.0 | 1275.6 | Af | A | SS-A | Gal-GlcUA- | acetylGlc-Ara- |
| 18 | 39.1 | 959.5 | Ba | B | SS-B | Glc-Gal-GlcUA- | H- |
| 19 | 39.3 | 1015.5 | K-ag | α | SS-K | Glc-Gal-GlcUA- | O= |
| 20 | 40.1 | 943.5 | Bb | B | SS-B | Rha-Gal-GlcUA- | H- |
| 21 | 40.8 | 797.5 | Bb' | B | SS-B | Gal-GlcUA- | H- |
| 22 | 41.7 | 913.5 | Bc | B | SS-B | Glc-Ara-GlcUA- | H- |
| 23 | 42.0 | 957.5 | Bd | E | SS-E | Glc-Gal-GlcUA- | O= |
| 24 | 42.9 | 1085.6 | ag | DDMP | SS-B+DDMP | Glc-Gal-GlcUA- | (DDMP-) |
| 25 | 44.0 | 1069.6 | βg | DDMP | SS-B+DDMP | Rha-Gal-GlcUA- | (DDMP-) |
| 26 | 45.2 | 1039.5 | βa | DDMP | SS-B+DDMP | Rha-Ara-GlcUA- | (DDMP-) |
| 27 | 46.1 | 923.5 | γg | DDMP | SS-B+DDMP | Gal-GlcUA- | (DDMP-) |