**Table 1.** Organ-specific flavone concentrations collected from 7 *Scutellaria* species via High Performance Liquid Chromatography (HPLC). Units for all flavones are µmol / g fresh weight, except for isoscutellarein 8-G, which has units of peak area. Data is presented as mean ± standard error, as calculated from samples taken in biological triplicate.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Organ | Apigenin | Apigenin 7-G | Scutellarein | Scutellarin | Isoscutellarein 8-G1 | Hispidulin | Hispiduloside |
| *S. baicalensis* | Leaves | 0.19 ± 0.03 | 0.13 ± 0.01 | 0.27 ± 0.14 | 0.10 ± 0.10 | 0.10 ± 0.05 | n.d. | n.d. |
| *S. baicalensis* | Stems | 0.12 ± 0.12 | 0.22 ± 0.01 | 1.04 ± 0.43 | 1.76 ± 0.28 | 2.17 ± 0.60 | 0.03 ± 0.02 | n.d. |
| *S. baicalensis* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. altissima* | Leaves | n.d.\* | 0.28 ± 0.15 | 0.65 ± 0.28 | 4.17 ± 1.22\* | n.d. | n.d. | n.d. |
| *S. altissima* | Stems | n.d. | n.d.\* | n.d.\* | 1.11 ± 0.13\* | 0.26 ± 0.01\* | n.d. | n.d. |
| *S. altissima* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. barbata* | Leaves | n.d.\* | 0.01 ± 0.01\* | 4.59 ± 0.33\* | 1.51 ± 0.70\* | 2.34 ± 0.49\* | 0.10 ± 0.02\* | n.d. |
| *S. barbata* | Stems | n.d. | 0.11 ± 0.02\* | 1.90 ± 0.23 | 1.13 ± 0.25 | 3.89 ± 0.60\* | 0.09 ± 0.01\* | n.d. |
| *S. barbata* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. parvula* | Leaves | 0.11 ± 0.01\* | n.d.\* | 0.22 ± 0.04 | n.d. | n.d. | 0.13 ± 0.01\* | n.d. |
| *S. parvula* | Stems | 0.02 ± 0.02 | n.d.\* | 0.11 ± 0.01\* | 0.16 ± 0.08\* | n.d. | 0.07 ± 0.00\* | n.d. |
| *S. parvula* | Roots | 0.06 ± 0.03\* | n.d. | n.d. | 0.82 ± 0.19\* | n.d. | 0.10 ± 0.03\* | n.d. |
| *S. racemosa* | Leaves | n.d.\* | n.d.\* | n.d.\* | 1.20 ± 0.35\* | n.d. | 0.63 ± 0.18\* | n.d. |
| *S. racemosa* | Stems | n.d. | n.d.\* | n.d.\* | 0.94 ± 0.33 | n.d. | 0.25 ± 0.06\* | 0.06 ± 0.06 |
| *S. racemosa* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. tournefortii* | Leaves | n.d.\* | 0.28 ± 0.07\* | n.d.\* | 2.98 ± 0.65\* | 0.18 ± 0.03 | n.d. | n.d. |
| *S. tournefortii* | Stems | n.d. | n.d.\* | n.d.\* | 1.47 ± 0.46 | 0.90 ± 0.24\* | n.d. | n.d. |
| *S. tournefortii* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. wrightii* | Leaves | n.d.\* | n.d.\* | n.d.\* | 0.13 ± 0.09 | n.d. | 0.02 ± 0.00\* | n.d. |
| *S. wrightii* | Stems | n.d. | 0.03 ± 0.01\* | n.d.\* | 2.10 ± 0.25 | n.d. | 0.63 ± 0.08\* | n.d. |
| *S. wrightii* | Roots | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |

1Data has units of peak area.

\* p-value < 0.05 relative to *S. baicalensis* for the same organ and flavone.

**Table 1 cont.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Organ | Chrysin | Chrysin 7-G | Baicalein | Baicalin | Oroxylin A | Oroxyloside | Wogonin | Wogonoside |
| *S. baicalensis* | Leaves | 4.84 ± 0.53 | 1.45 ± 0.24 | 0.19 ± 0.08 | 0.20 ± 0.11 | n.d. | n.d. | n.d. | n.d. |
| *S. baicalensis* | Stems | 0.18 ± 0.04 | 0.09 ± 0.01 | 0.06 ± 0.03 | 0.87 ± 0.87 | n.d. | n.d. | 0.11 ± 0.11 | 0.02 ± 0.02 |
| *S. baicalensis* | Roots | n.d. | 0.30 ± 0.01 | 0.20 ± 0.03 | 32.81 ± 2.22 | 0.23 ± 0.13 | 0.87 ± 0.87 | 3.49 ± 0.18 | 6.43 ± 0.43 |
| *S. altissima* | Leaves | 0.75 ± 0.07\* | 2.62 ± 0.18\* | 0.70 ± 0.18\* | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. altissima* | Stems | 0.04 ± 0.02\* | 0.35 ± 0.05\* | 0.15 ± 0.05 | 0.47 ± 0.38 | n.d. | 0.06 ± 0.06 | 0.34 ± 0.26 | 1.26 ± 0.51\* |
| *S. altissima* | Roots | n.d. | n.d.\* | 0.07 ± 0.00\* | 5.07 ± 0.66\* | 0.14 ± 0.02 | 0.64 ± 0.07 | 2.90 ± 0.21\* | 2.30 ± 0.26\* |
| *S. barbata* | Leaves | 0.03 ± 0.00\* | n.d.\* | n.d.\* | n.d. | n.d. | n.d. | n.d. | n.d. |
| *S. barbata* | Stems | n.d.\* | n.d.\* | n.d. | n.d. | n.d. | n.d. | 0.03 ± 0.02 | n.d. |
| *S. barbata* | Roots | n.d. | n.d.\* | 1.49 ± 0.04\* | 2.59 ± 0.49\* | 0.08 ± 0.01 | 0.34 ± 0.18 | 3.88 ± 0.34 | 1.77 ± 0.30\* |
| *S. parvula* | Leaves | 25.34 ± 0.72\* | 0.79 ± 0.09\* | 0.22 ± 0.03 | 0.07 ± 0.03 | 0.59 ± 0.11\* | n.d. | 0.07 ± 0.07 | 0.06 ± 0.02\* |
| *S. parvula* | Stems | 5.37 ± 0.41\* | 0.91 ± 0.31\* | 0.34 ± 0.14\* | 0.17 ± 0.08 | 0.37 ± 0.03\* | 0.03 ± 0.03 | 1.24 ± 0.09\* | 0.10 ± 0.05 |
| *S. parvula* | Roots | 0.40 ± 0.08\* | 0.18 ± 0.04\* | 0.12 ± 0.03 | 5.35 ± 0.94\* | 1.86 ± 0.31\* | 2.18 ± 0.33 | 5.62 ± 1.10 | n.d.\* |
| *S. racemosa* | Leaves | 0.12 ± 0.01\* | n.d.\* | 0.34 ± 0.29 | 7.59 ± 1.95\* | 14.39 ± 2.58\* | 29.39 ± 8.00\* | 0.02 ± 0.02 | n.d. |
| *S. racemosa* | Stems | 0.03 ± 0.03\* | n.d.\* | 0.24 ± 0.22 | 6.36 ± 2.13\* | 5.09 ± 1.09\* | 15.17 ± 4.14\* | 0.44 ± 0.03\* | 0.45 ± 0.19\* |
| *S. racemosa* | Roots | n.d. | n.d.\* | 0.08 ± 0.02\* | 6.98 ± 1.20\* | 0.44 ± 0.11 | 2.02 ± 0.38 | 1.82 ± 0.06\* | 1.60 ± 0.25\* |
| *S. tournefortii* | Leaves | 0.49 ± 0.02\* | 4.69 ± 0.97\* | 0.53 ± 0.13\* | n.d. | n.d. | n.d. | n.d. | 0.06 ± 0.06 |
| *S. tournefortii* | Stems | 0.01 ± 0.01\* | 0.15 ± 0.04 | 0.28 ± 0.07\* | 0.08 ± 0.04 | n.d. | 0.06 ± 0.03 | 0.13 ± 0.05 | 2.43 ± 0.66\* |
| *S. tournefortii* | Roots | n.d. | 0.08 ± 0.04\* | 0.13 ± 0.06 | 0.93 ± 0.08\* | 0.08 ± 0.01 | 1.24 ± 0.14 | 2.33 ± 0.20\* | 7.61 ± 0.15\* |
| *S. wrightii* | Leaves | 0.82 ± 0.17\* | 0.13 ± 0.09\* | 0.78 ± 0.18\* | 1.21 ± 0.63 | 0.10 ± 0.02\* | 0.16 ± 0.05\* | n.d. | n.d. |
| *S. wrightii* | Stems | 0.99 ± 0.37\* | 2.23 ± 0.11\* | 3.10 ± 1.31\* | 29.90 ± 0.92\* | 2.24 ± 0.43\* | 14.87 ± 0.26\* | 0.62 ± 0.07\* | 0.40 ± 0.11\* |
| *S. wrightii* | Roots | n.d. | n.d.\* | 18.10 ± 1.37\* | 43.99 ± 9.53 | 1.17 ± 0.38\* | 4.22 ± 1.17\* | 3.13 ± 0.53 | 3.09 ± 0.87\* |

\* p-value < 0.05 relative to *S. baicalensis* for the same organ and flavone.