**Table 1.** Organ-specific flavone concentrations collected from 7 *Scutellaria* speces via High Performance Liquid Chromatography (HPLC). Units for all flavones except for isoscutellarein 8-G are µmol / g fresh weight. Units for isoscutellarein 8-G are 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 | Hispidulin | Hispiduloside | Isoscutellarein 8-G |
| *S. altissima* | Leaves | 0.00 ± 0.00 | 0.28 ± 0.15 | 0.65 ± 0.28 | 4.17 ± 1.22 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. altissima* | Stems | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 1.11 ± 0.13 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.26 ± 0.01 |
| *S. altissima* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. baicalensis* | Leaves | 0.19 ± 0.03 | 0.13 ± 0.01 | 0.27 ± 0.14 | 0.10 ± 0.10 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.10 ± 0.05 |
| *S. baicalensis* | Stems | 0.12 ± 0.12 | 0.22 ± 0.01 | 1.04 ± 0.43 | 1.76 ± 0.28 | 0.03 ± 0.02 | 0.00 ± 0.00 | 2.17 ± 0.60 |
| *S. baicalensis* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. barbata* | Leaves | 0.00 ± 0.00 | 0.01 ± 0.01 | 4.59 ± 0.33 | 1.51 ± 0.70 | 0.10 ± 0.02 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. barbata* | Stems | 0.00 ± 0.00 | 0.11 ± 0.02 | 1.90 ± 0.23 | 1.13 ± 0.25 | 0.09 ± 0.01 | 0.00 ± 0.00 | 3.89 ± 0.60 |
| *S. barbata* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. leonardii* | Leaves | 0.11 ± 0.01 | 0.00 ± 0.00 | 0.22 ± 0.04 | 0.00 ± 0.00 | 0.13 ± 0.01 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. leonardii* | Stems | 0.02 ± 0.02 | 0.00 ± 0.00 | 0.11 ± 0.01 | 0.16 ± 0.08 | 0.07 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. leonardii* | Roots | 0.06 ± 0.03 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.82 ± 0.19 | 0.10 ± 0.03 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. racemosa* | Leaves | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 1.20 ± 0.35 | 0.63 ± 0.18 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. racemosa* | Stems | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.94 ± 0.33 | 0.25 ± 0.06 | 0.06 ± 0.06 | 0.00 ± 0.00 |
| *S. racemosa* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. tournefortii* | Leaves | 0.00 ± 0.00 | 0.28 ± 0.07 | 0.00 ± 0.00 | 2.98 ± 0.65 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.18 ± 0.03 |
| *S. tournefortii* | Stems | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 1.47 ± 0.46 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.90 ± 0.24 |
| *S. tournefortii* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. wrightii* | Leaves | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.13 ± 0.09 | 0.02 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. wrightii* | Stems | 0.00 ± 0.00 | 0.03 ± 0.01 | 0.00 ± 0.00 | 2.10 ± 0.25 | 0.63 ± 0.08 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. wrightii* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |

**Table 1 cont.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Organ | Chrysin | Chrysin 7-G | Baicalein | Baicalin | Oroxylin A | Oroxyloside | Wogonin | Wogonoside |
| *S. altissima* | Leaves | 0.75 ± 0.07 | 2.62 ± 0.18 | 0.70 ± 0.18 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. altissima* | Stems | 0.04 ± 0.02 | 0.35 ± 0.05 | 0.15 ± 0.05 | 0.47 ± 0.38 | 0.00 ± 0.00 | 0.06 ± 0.06 | 0.34 ± 0.26 | 1.26 ± 0.51 |
| *S. altissima* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 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. baicalensis* | Leaves | 4.84 ± 0.53 | 1.45 ± 0.24 | 0.19 ± 0.08 | 0.20 ± 0.11 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. baicalensis* | Stems | 0.18 ± 0.04 | 0.09 ± 0.01 | 0.06 ± 0.03 | 0.87 ± 0.87 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.11 ± 0.11 | 0.02 ± 0.02 |
| *S. baicalensis* | Roots | 0.00 ± 0.00 | 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. barbata* | Leaves | 0.03 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *S. barbata* | Stems | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.03 ± 0.02 | 0.00 ± 0.00 |
| *S. barbata* | Roots | 0.00 ± 0.00 | 0.00 ± 0.00 | 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. leonardii* | Leaves | 25.34 ± 0.72 | 0.79 ± 0.09 | 0.22 ± 0.03 | 0.07 ± 0.03 | 0.59 ± 0.11 | 0.00 ± 0.00 | 0.07 ± 0.07 | 0.06 ± 0.02 |
| *S. leonardii* | 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. leonardii* | 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 | 0.00 ± 0.00 |
| *S. racemosa* | Leaves | 0.12 ± 0.01 | 0.00 ± 0.00 | 0.34 ± 0.29 | 7.59 ± 1.95 | 14.39 ± 2.58 | 29.39 ± 8.00 | 0.02 ± 0.02 | 0.00 ± 0.00 |
| *S. racemosa* | Stems | 0.03 ± 0.03 | 0.00 ± 0.00 | 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 | 0.00 ± 0.00 | 0.00 ± 0.00 | 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 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 | 0.06 ± 0.06 |
| *S. tournefortii* | Stems | 0.01 ± 0.01 | 0.15 ± 0.04 | 0.28 ± 0.07 | 0.08 ± 0.04 | 0.00 ± 0.00 | 0.06 ± 0.03 | 0.13 ± 0.05 | 2.43 ± 0.66 |
| *S. tournefortii* | Roots | 0.00 ± 0.00 | 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 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| *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 | 0.00 ± 0.00 | 0.00 ± 0.00 | 18.10 ± 1.37 | 43.99 ± 9.53 | 1.17 ± 0.38 | 4.22 ± 1.17 | 3.13 ± 0.53 | 3.09 ± 0.87 |