

**Table 1.** Mean metabolite concentrations  $\pm$  standard error (n=3) measured by HPLC. Units are  $\mu\text{mol/g}$  fresh weight.

Species	Organ	Phenylpropanoids	4'-hydroxyflavones		Scutellarein	Scutellarin	Hispidulin	HispidulinG
		Acteoside	Apigenin	ApigeninG				
<i>S. altissima</i>	Leaf	0 ± 0	0 ± 0	0.29 ± 0.16	0.65 ± 0.28	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.18 ± 0.01	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. arenicola</i>	Leaf	2.76 ± 1.38	0.44 ± 0.08	0.11 ± 0.06	0.25 ± 0.1	0.04 ± 0.02	13.45 ± 3.41	0.85 ± 0.43
	Stem	0.67 ± 0.67	0 ± 0	0.02 ± 0.02	0.23 ± 0.17	0.2 ± 0.11	2.57 ± 0.23	0.12 ± 0.12
	Root	2 ± 0.5	0 ± 0	0.35 ± 0.18	0 ± 0	3.07 ± 0.64	0 ± 0	0 ± 0
<i>S. baicalensis</i>	Leaf	0 ± 0	0.19 ± 0.03	0.13 ± 0.01	0.27 ± 0.14	0 ± 0	0 ± 0	0 ± 0
	Stem	0.01 ± 0.01	0.12 ± 0.12	0.23 ± 0.01	1.04 ± 0.43	0 ± 0	0.03 ± 0.02	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. barbata</i>	Leaf	0 ± 0	0.26 ± 0.21	0.02 ± 0.02	0.59 ± 0.34	1.66 ± 0.09	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	1.43 ± 0.14	0 ± 0	0 ± 0
	Root	1.94 ± 0.27	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. dependens</i>	Leaf	0 ± 0	4.4 ± 2.2	11.53 ± 3.11	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	1.6 ± 0.36	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	1.92 ± 0.27	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. havanensis</i>	Leaf	16.69 ± 9.45	0.23 ± 0.03	1.62 ± 0.32	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0.18 ± 0.05	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. indica</i> var. <i>coccinea</i>	Leaf	0.83 ± 0.28	1.19 ± 0.64	2.13 ± 0.85	0.97 ± 0.68	3.57 ± 1.45	0 ± 0	0 ± 0
	Stem	0 ± 0	0.21 ± 0.1	1.27 ± 0.18	0 ± 0	1.58 ± 0.2	0 ± 0	0 ± 0
	Root	0.8 ± 0.17	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. insignis</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.19 ± 0.04	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. leonardii</i>	Leaf	0.15 ± 0.15	0.11 ± 0.01	0 ± 0	0.22 ± 0.04	0 ± 0	0.13 ± 0.01	0 ± 0
	Stem	0 ± 0	0.02 ± 0.02	0 ± 0	0.11 ± 0.01	0 ± 0	0.07 ± 0	0 ± 0
	Root	0.38 ± 0.38	0.06 ± 0.03	0 ± 0	0 ± 0	0 ± 0	0.1 ± 0.03	0 ± 0
<i>S. pekinensis</i> var. <i>alpina</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0.49 ± 0.25	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	1.45 ± 0.08	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. racemosa</i>	Leaf	1.64 ± 1.64	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.63 ± 0.18	0 ± 0
	Stem	1.4 ± 1.4	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.25 ± 0.06	0.06 ± 0.06
	Root	0.87 ± 0.4	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. strigillosa</i>	Leaf	0.33 ± 0.33	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0.3 ± 0.3	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. tournefortii</i>	Leaf	0 ± 0	0 ± 0	0.29 ± 0.07	0 ± 0	0.12 ± 0.02	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.61 ± 0.16	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
<i>S. wrightii</i>	Leaf	0 ± 0	0.14 ± 0.02	0.17 ± 0.02	0 ± 0	0 ± 0	0.39 ± 0.05	0 ± 0
	Stem	0 ± 0	0 ± 0	0.06 ± 0.03	0 ± 0	0 ± 0	0.19 ± 0.11	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0

Species	Organ	4'-deoxyflavones							
		Chrysin	ChrysinG	Baicalein	Baicalin	OroxylinA	Oroxyloside	Wogonin	Wogonoside
<i>S. altissima</i>	Leaf	0.75 ± 0.07	2.71 ± 0.19	0.7 ± 0.18	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0.04 ± 0.02	0.36 ± 0.05	0.15 ± 0.05	0.47 ± 0.38	0 ± 0	0.06 ± 0.06	0.34 ± 0.26	1.26 ± 0.51
	Root	0 ± 0	0 ± 0	0.07 ± 0	5.07 ± 0.66	0.14 ± 0.02	0.64 ± 0.07	2.9 ± 0.21	2.3 ± 0.26
<i>S. arenicola</i>	Leaf	0.19 ± 0.02	0 ± 0	0.2 ± 0.06	0 ± 0	0 ± 0	0 ± 0	0.38 ± 0.11	0.03 ± 0.02
	Stem	0.06 ± 0.06	0 ± 0	0.31 ± 0.26	0 ± 0	0 ± 0	0 ± 0	2.98 ± 0.15	0.45 ± 0.09
	Root	0 ± 0	0 ± 0	1.84 ± 0.3	0 ± 0	0 ± 0	0.17 ± 0.06	4.98 ± 0.66	5.37 ± 0.31
<i>S. baicalensis</i>	Leaf	4.84 ± 0.53	1.49 ± 0.25	0.19 ± 0.08	0.2 ± 0.11	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0.18 ± 0.04	0.09 ± 0.01	0.06 ± 0.03	0.87 ± 0.87	0 ± 0	0 ± 0	0.11 ± 0.11	0.02 ± 0.02
	Root	0 ± 0	0.31 ± 0.01	0.2 ± 0.03	32.81 ± 2.22	0.23 ± 0.13	0.87 ± 0.87	3.49 ± 0.18	6.43 ± 0.43
<i>S. barbata</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	3.42 ± 0.4	0 ± 0	0 ± 0	0.34 ± 0.08	2.11 ± 0.29
<i>S. dependens</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	5.81 ± 2.14	11.77 ± 2.05
	Stem	0 ± 0	0 ± 0	0 ± 0	0.39 ± 0.16	0 ± 0	0 ± 0	0.51 ± 0.1	6.71 ± 1.13
	Root	0 ± 0	0.14 ± 0.07	0 ± 0	7.24 ± 1.07	0.47 ± 0.25	5.23 ± 1.23	2.58 ± 0.37	4.32 ± 0.74
<i>S. havanensis</i>	Leaf	4.25 ± 0.63	19.06 ± 4.33	0.08 ± 0.03	31.22 ± 6.88	0.02 ± 0.02	0 ± 0	0.04 ± 0.02	0.27 ± 0.17
	Stem	0.99 ± 0.26	4.06 ± 0.11	0.04 ± 0	13.88 ± 0.21	0.11 ± 0.03	1.54 ± 0.1	1.08 ± 0.15	2.78 ± 0.04
	Root	0.89 ± 0.08	3.37 ± 0.22	0.14 ± 0.02	38.21 ± 1.73	0.25 ± 0.07	3.08 ± 0.64	2.84 ± 0.24	11.09 ± 0.39
<i>S. indica</i> var. <i>coccinea</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	1.13 ± 0.1	0 ± 0	0 ± 0	3.3 ± 0.37	4.61 ± 0.4
<i>S. insignis</i>	Leaf	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.04 ± 0.04	1.02 ± 0.31
<i>S. leonardii</i>	Leaf	25.34 ± 0.72	0.82 ± 0.09	0.22 ± 0.03	0.07 ± 0.03	0.59 ± 0.11	0 ± 0	0.07 ± 0.07	0.06 ± 0.02
	Stem	5.37 ± 0.41	0.94 ± 0.32	0.34 ± 0.14	0.17 ± 0.08	0.37 ± 0.03	0.03 ± 0.03	1.24 ± 0.09	0.1 ± 0.05
	Root	0.4 ± 0.08	0.18 ± 0.04	0.12 ± 0.03	5.35 ± 0.94	1.86 ± 0.31	2.18 ± 0.33	5.62 ± 1.1	0 ± 0
<i>S. pekinensis</i> var. <i>alpina</i>	Leaf	8.53 ± 1.5	17.18 ± 2.53	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Stem	2.14 ± 0.49	7.89 ± 0.82	0 ± 0	0.13 ± 0.08	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Root	0 ± 0	4.59 ± 0.62	0 ± 0	4.01 ± 0.48	0.14 ± 0.13	0.08 ± 0.06	0 ± 0	0 ± 0
<i>S. racemosa</i>	Leaf	0.12 ± 0.01	0 ± 0	0.34 ± 0.29	7.59 ± 1.95	14.39 ± 2.58	29.39 ± 8	0.02 ± 0.02	0 ± 0
	Stem	0.03 ± 0.03	0 ± 0	0.24 ± 0.22	6.36 ± 2.13	5.09 ± 1.09	15.17 ± 4.14	0.44 ± 0.03	0.45 ± 0.19
	Root	0 ± 0	0 ± 0	0.08 ± 0.02	6.98 ± 1.2	0.44 ± 0.11	2.02 ± 0.38	1.82 ± 0.06	1.6 ± 0.25
<i>S. strigillosa</i>	Leaf	0 ± 0	0.8 ± 0.2	2.49 ± 1.2	37.04 ± 6.19	0 ± 0	0 ± 0	0 ± 0	0.04 ± 0.03
	Stem	0 ± 0	0 ± 0	0 ± 0	4.18 ± 0.64	0 ± 0	0 ± 0	0.17 ± 0.1	0.44 ± 0.11
	Root	0 ± 0	0.12 ± 0.12	0 ± 0	3.58 ± 1.1	0 ± 0	1.3 ± 0.77	0.78 ± 0.41	2.15 ± 0.58
<i>S. tournefortii</i>	Leaf	0.49 ± 0.02	4.85 ± 1	0.53 ± 0.13	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.06 ± 0.06
	Stem	0.01 ± 0.01	0.16 ± 0.05	0.28 ± 0.07	0.08 ± 0.04	0 ± 0	0.06 ± 0.03	0.13 ± 0.05	2.43 ± 0.66
	Root	0 ± 0	0.09 ± 0.04	0.13 ± 0.06	0.93 ± 0.08	0.08 ± 0.01	1.24 ± 0.14	2.33 ± 0.2	7.61 ± 0.15
<i>S. wrightii</i>	Leaf	1.35 ± 0.17	0.69 ± 0.02	9.61 ± 2.54	13.94 ± 0.86	0.46 ± 0.09	0.51 ± 0.11	0 ± 0	0 ± 0
	Stem	0.04 ± 0.04	0 ± 0	0.23 ± 0.16	16.87 ± 8.1	0.28 ± 0.1	8.52 ± 3.27	0.01 ± 0.01	0.2 ± 0.05
	Root	0 ± 0	0 ± 0	5.73 ± 1.11	85.75 ± 11.2	0.3 ± 0.08	6.83 ± 0.24	0.38 ± 0.09	3.67 ± 1.22